

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

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 Acting Director, OMSAR
Mrs Roula Kabbani, EU Project Coordinator, OMSAR

From: Marten van Golverdinge Schut, PMC Project Management Expert

Date: 16 August 2001

Subject: Second Follow-up of the strategy plan for CAS.

Please find attached for your approval and transmission to the Central Administration of Statistics (CAS) for further endorsement the report on the mission July 27- August 11 2001 prepared by Mr. Sten Johansson, the short term Statistics Advisor Institutional Development.

Marten van Golverdinge Schut
PMC Project Management Expert

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

Programme Monitoring Consultancy

Sub-component 1.4.3: Assistance to Central Administration of Statistics (CAS)

Activity # 2: Implementation of the strategic plan.

Second follow-up of the strategy plan for CAS **Draft Report on the Third Short-term Mission** **July 27 – August 11 in Beirut**

by
Professor Sten Johansson

Summary:

The implementation of the November strategy plan for building a system of economic statistics sufficient for modern National Accounts have started, albeit with some further delays. A rescheduling of the fieldwork for the update of the sampling frames to second half of 2002 has become necessary with consequences for the set of economic surveys for 2001. The preparations for the household survey has started with technical assistance from INSEE of France. The preparations for the set of economic surveys for the main sectors of production can now start with some assistance with questionnaires and manuals provided by regional statistical agencies.

The implementation of the plan for institutional development at the CAS has been initiated. This mission has mainly dealt with the human resources area to provide inputs to CAS planning and decisions for staff capacity and capability building. Inputs include a general discussion of statistical agency needs for staff capacity and capabilities to produce official statistics to develop, plan and monitor policies in the various areas of social, economic and environmental concerns of countries. This is followed by a detailed discussion of the staff capacity and capabilities available at the present at the CAS. The minimum needs in the short run to implement the November strategy plan are specified as 29 university-trained staff.

Beirut 2001-08-11

1. Terms of reference

"The main purposes of the mission are to support the implementation of the strategy plan and to start the implementation of the institutional development plan with priority for developing a new human resources structure and a plan for building staff capacity and capability.

3.1. Main activities to be undertaken

3.1. Preparations in Stockholm

- 3.1.1. Collaborate with the resident international expert to develop terms of reference for the expert missions to the CAS in the technical assistance plan and on other up-coming issues in the implementation of the strategy plan;*
- 3.1.2. Draft memos on items 1.1 and 1.2 in the annexed work plan as preparations for discussions and decisions by the CAS on a new staff structure (item 1.3);*
- 3.1.3. Support the local expert in her work with the benchmark survey of present staff capacity and capability at the CAS (item 1.4) as a basis for the plan for staff capacity and capability building (item 5);*
- 3.1.4. Initiate work on items 2.1 and 2.2 in the annexed work plan as preparations for a workshop on principles of organization for statistical agencies "*

3.2. Activities during the mission to the CAS

- 3.2.1. Follow-up of the implementation of the strategy plan, in particular the preparations for the household survey and the update of the 1996 database on buildings, dwellings and establishments, and the technical assistance plan and propose the changes that may be needed;*
- 3.2.2. Assist the CAS in developing a proposal for a new staff structure for the CAS, eventually to be regulated in a new government decree on CAS;*
- 3.2.3. Assist the CAS in developing a plan for staff capacity and capability building sufficient for a modern system of official statistics for Lebanon.*
- 3.2.4. Conduct a workshop seminar on organizational principles for statistical agencies with the CAS management team;*
- 3.2.5. Define the tasks to be accomplished in the next mission and the preparatory work by the expert to be done in Stockholm.*

2. Activities in Stockholm

Because of pressures from my full time job in Stockholm I could not make available as much time for preparations as foreseen. Activity 3.1.1 was fully accomplished in cooperation with the resident long-term adviser, Mr. Idilio Freire, resulting in drafts of six Terms of Reference for the short term missions (including my own mission) in the ARLA technical assistance plan for the CAS. I was also able to study the law and regulation on the CAS relevant to the other three items but not to start work on the memos foreseen under activity 3.1.2. As a consequence I will claim payment for only three of the "up to seven days in Stockholm" allocated according to my Terms of Reference. I have tried to accomplish the main purposes and outputs of the mission by extending my stay in Beirut with the "missing" four days. The decision to extend the mission was subjected to the approval of the CAS, the PMC and authorized by the Minister of State for Administrative Reform, H.E. Fouad El-Saad.

3. Summary of activity plan for the mission:

Week	Activities	# ToR Activity	Result
1. July 27-29	Follow-up of strategy plan Work on benchmark survey Planning the mission	# 3.2.1 # 3.1.3	Mission work plan
2. July 30 – August 5	Follow-up of strategy plan Revising technical assistance plan Work on benchmark survey Work on staff capacity plan	# 3.2.1 # 3.1.1 # 3.1.3 # 3.2.3	Memo on follow-up Ranking of CVs
3. August 6-11	Completing benchmark survey Completing staff capacity plan Calendar for next mission	# 3.2.3 # 3.2.2 # 3.2.5	Staff capacity plan Final report

Below is just a brief summary of activities. The main outputs of the mission are in the two memos attached as Annexes 2 and 3. One is on the follow-up of the November 2000 strategy plan for building an economic statistics system sufficient for modern National Accounts and the technical assistance plan for 2001-2002 submitted for inclusion in the ARLA work plan. The other memo is on "Statistical agency needs for staff" and the needs of the CAS. This memo is in effect a combination of the two memos, first drafts of which should have been prepared in Stockholm.

4. Follow-up of strategy plan

The strategy plan for economic statistics system building for Lebanon that was adopted by the CAS in November 2000 and slightly modified in May has the following four components:

1. Update of the 1996 registration of buildings, dwellings and establishments to function as sampling frame for household and economic surveys.
2. A household survey with January-December 2002 to measure level and structure of household production and consumption for the National Accounts.
3. A set of economic surveys of the main branches of production to be carried out in the second quarter of 2002, and
4. An exercise to produce some provisional National Accounts estimates for the years 1997-2000 based on available data.

The critical assumptions listed in the plan were (1) that vacancies of higher-level technical staff in the departments for production statistics, national accounts, household surveys and information technology are filled in time for the new staff to be trained in the preparation process for the major surveys to be implemented in years 2002 and 2003 and (2) that all government institutions are able to cooperate fully with CAS in a coordinated effort to establish a modern statistical system for Lebanon.

4.1. The update of the sampling frames

A brief summary of the follow-up is that two further delays – one foreseen and the other not foreseen – have made necessary a further rescheduling of the fieldwork for the update of the sampling frames for the household survey and the set of economic surveys, which must start in January and in the second quarter of 2002 respectively. According to the rescheduling, the

fieldwork for the update should now be made in the second half of 2002 instead of in 2001. The rescheduling will create some rather serious problems for the estimates from the economic surveys for 2001 for which there will probably not be any solution that is fully satisfactory. However, the set of surveys for 2001 will still give data that fill some of the large gaps in comparison with the data available for the period 1995-2000, for which there is no real remedy. One advantage is that the sampling frame available for the set of economic surveys for 2002 will be more current by one year. The National Accounts estimates for 2001 will necessarily have a more provisional character that they would have had if the updated sampling frame had been available as scheduled in May.

The foreseen delay was that the formal appointment process for the new technical staff will apparently follow the normal course and take about four months after the selection of the recruits was done in early June. The unforeseen delay that finally tipped the balance in favour of rescheduling the update was that the agreement in early May between the CAS and the Army has not been approved by the Government so far. The agreement was that the CAS could purchase the Army's system of digitised maps for its cartography. Without the maps no preparations for the update could start.

If the Government in the end finds that it cannot authorize the agreement, the CAS will have to revert to the old methodology for cartographic work with hand drawn map sketches without being able to take advantage of the big step in quality and in the economy of the fieldwork operations and future updates that the new GIS technology offers.

4.2. The household survey

The preparations for the household survey has started with technical assistance from the local expert Dr. Zoha Khalil and INSEE of France. ARLA involvement in this survey will consist of participation in technical discussions as requested to help define the needs for the National Accounts and for the Balance of Payments, in follow-up of the November 2000 strategy plan and in providing the local expert's assistance, Dr. Zoha Khalil.

4.3. The economic surveys

The preparations for the set of economic surveys, to cover the main sectors of production (manufacturing, construction, transport, domestic trade and other services like restaurants, hotels, etc), which must now start mainly include questionnaires and manuals and, of course, training of the subject matter staff in connection with pilot studies. The sampling design with the provisional and in several ways deficient sampling frame will be needed only later in the first quarter of 2002.

One issue that needs serious consideration concerns the number of university-trained subject matter staff in the Economic Statistics Department that should be available. I have recommended that there are 15 university trained subject matter staff available (three for each of the sector surveys) at the start of the preparatory phase with questionnaires and manuals but latest when the pilots are to be executed. A substantial input of technical assistance is needed. The updated ARLA plan would provide for five man months.

Two assets for this operation have been mobilized. Through regional cooperation between national institutes of statistics in the region, the CAS has obtained all the questionnaires and manuals in Arabic for all the economic surveys needed for economic statistics and National Accounts compilation according to SNA 93, needing adaptation only to Lebanese conditions.

The second asset is that a very suitable international expert of Jordanian extraction with precisely relevant experience from DOS in Jordan, PCBS in Palestine and recent expert missions to Jemen is available for (at least) four man-months of short-term missions over the next twelve months. His only liability for the job is that he is now an Australian citizen so an exception from the EU citizenship requirement may be needed.

4.4. Provisional National Accounts estimates for 1997-2000

The resident ARLA expert on National Accounts, Mr. Freire, has completed a draft report on the exercise to compile some National Accounts estimates for Lebanon for 1995-2000. His conclusion is that the gaps in the data and the large inconsistencies between the available data sources makes it impossible for the CAS to produce any National Accounts statistics that reach even the lowest international standards for official statistics. Even some kind of provisional estimates that could be released officially in the name of a national statistical institute cannot be made.

The CAS has provisionally accepted the draft report and its main conclusion. The draft report will be finalized and submitted to the PMC team leader, Mr. Dimitrios Sfikas, before the expert leaves.

5. *The update of the ARLA technical assistance plan for the CAS*

The significant event in this area is that the resident long-term adviser on National Accounts of the ARLA team for the CAS, Mr. Idilio Freire, has been offered the post as Chief of the Annual National Accounts of the National Statistical Institute of Portugal. He has tendered his resignation, which will be effective as of August 21. This is a great loss for the team and for CAS, a loss that most importantly threatens the continuity of the ARLA assistance operation for the CAS. Immediate action is needed by the PMC and other actors involved to save the situation and – if possible – to come up with a stronger operation.

A positive factor in this situation is that the Terms of Reference for the short-term missions to the CAS seems to have attracted some very qualified experts from the international statistical community. If the prime candidates for the five expert missions can be recruited they would together constitute a rather formidable team to train the inexperienced staff on the job. The length of their missions will be somewhat expanded to compensate for the lack of a resident long-term expert and make teamwork and overlapping missions possible.

6. *Statistical agency needs for staff – and the needs of the CAS*

Besides following-up the November strategy plan and the May technical assistance plan the main purpose of this mission was *“to start the implementation of the institutional development plan with priority for developing a new human resources structure and a plan for building staff capacity and capability.”* The institutional development plan lists five main activities: (1) Human resources development, (2) Organization development, (3) Legislative framework, (4) Financial management, and (5) computer system development.

The sub-activities listed under (1) human resources development are:

- 1.1. Statistical agency needs for staff capacity and capabilities;
- 1.2. Analysis of staff structure in the 1980 Decree (Chapter 2);
- 1.3. A new staff structure for the CAS;
- 1.4. Survey of the CAS staff capacity and capabilities;
- 1.5. Staff capacity and capability plan;

The memo on “Statistical agency needs for staff – and the needs of the CAS” provides input into CAS further activities and decisions on these points for the short term as well as for the longer term.

The needs for staff capacity and capabilities of a modern statistical agency like the CAS wants to be can be derived from the number of program areas it shall cover and the dept and analytic sophistication it is aiming for in its output of official statistics. The 1980 Decree obliges the CAS to produce the whole set of official statistics that most countries did at the time and do today with three or four that have become normal since 1980 (gender and environment). This, of course, is because countries do not vary much in what areas are covered by official statistics to develop, plan and monitor policies in the various areas of social, economic and environmental concerns.

Lebanon’s lawmakers in 1980 provided for much the same statistical programs as other countries fairly developed countries had at the time. They allocated a total of 256 staff of which 99 for university- and college-trained staff. This would allow for a system of *complete* official statistics for the areas listed but only a rather moderate level of analytic sophistication and dept. If that rather moderate level of analytic sophistication and dept is accepted also for Lebanon in the coming years the number of staff needed to produce those statistics routinely after some five years has probably decreased a little from the 256 but the required capabilities of the staff will have increased considerably. What makes for the differences in capabilities needed are the developments in ICT – Information and Communications Technology – with the advent of powerful PCs and sophisticated software, most recently GIS-technology (Geographic Information Systems) and the Internet that nowadays makes the whole output of the international statistical community available in the PC of each of its members.

The present situation of the CAS in terms of capacity and capabilities of the 19 university- and college-trained staff is presented on the basis of a survey carried out during the mission in order to arrive at baseline figures for future monitoring. The eleven new recruits with modern university education will improve the situation but even with this addition it is clear that the CAS needs more staff to implement the November strategy plan and train enough staff in the process to arrive at sustainable capacity. The 1980 decree provides 99 positions for the departments involved in direct statistics production. When the eleven recruited will be in place (in September?) the total will reach 30 but even the present 19 have only scant practical experience from statistics production.

7. My next mission

My next mission was provisionally scheduled for the second half of September with Terms of Reference including follow-up of the November strategy plan and the technical assistance plan further activities on Human Resource Development, Organization Development and the Legislative framework with preparatory activities (if possible) in Stockholm.

The final timing of the mission will depend on the extent to which the barriers, which now seriously hinder progress at the CAS, can be removed by the Government. These are discussed and elaborated in both the annexed memos. They can be briefly summarized as follows:

1. that there is a Government decision on whether or not it can authorize the agreement between the CAS and the Army to make the Army's system of digitised maps available for cartographic work and GIS at the CAS. If the decision is that the agreement cannot be authorized the CAS will have to revert to the old method with hand-drawn map sketches and the Terms of Reference for the GIS mission modified to search for an expert on cartography,
2. that the process in the Government to formally appoint the 14 selected new recruits for some of the vacant positions, of which 11 are priority needs for the strategy plan, is finalized and the recruits are in place,
3. that the 29 positions additionally needed for the implementation of the strategy plan are filled by permanent staff or temporary staff on contract in time for each activity in order to secure successful operations and sustainable staff capacity and capability building
4. that the current hold on implementation of the ARLA technical assistance plan for the CAS is lifted, including the local expert, and
5. that there is a Government decision for the longer term to gradually fill the remaining positions for technical and specialist staff according to a modernized staff and organization structure to enable the CAS to produce statistics for all the areas mandated by the 1979 Law

The present situation at the CAS as to staff capacity and capabilities and its strategy to train its new, young inexperienced staff by immediately engaging them for the tasks to implement the November strategy makes a heavy input of qualified international experts absolutely indispensable for intensive on-the-job training. The recruitment process for the five selected experts should be finalized so that all the five experts can come to CAS for a first mission to plan for the teamwork needed ahead. My next mission can then be planned to coincide with their meeting, which probably cannot take place before the first week in October. My mission could then start in the second half of September and have the planning of that meeting as an important part of my Terms of Reference, if some of the conditions above are also satisfied.

Annexes:

1. Terms of Reference for this mission
2. Follow-up of the strategy plan and the technical assistance plan for the CAS
3. Statistical agency needs for staff - and the needs of the CAS
4. Updated work plan for and technical assistance in the ARLA program for institutional development at the CAS

**Terms of Reference
for the Institutional Development Expert
ARLA-PMC Project**

1. Background Information

The first mission of the expert in November 2000 assisted the Central Administration of Statistics (CAS) in developing a strategy plan for statistical system building, corresponding to part of Activity #1 in the PMC work plan for the CAS. In the second mission to CAS, 18 April – May 4, 2001, the main institutional development issues were identified and a work plan detailed for the period July 2001 – June 2002 as summarized in Annex 1. A second task of that mission was to make a first follow-up of the strategy plan for statistical system building in the years 2001-2003 and to adapt it to the changing circumstances in collaboration with the resident long term international expert on National Accounts.

The five main domains for institutional development identified in the mission report are "Human resource development", "Organizational development", "The Lebanese statistics laws", "Financial flexibility", and "Computer system development". The "Human resources development" is the priority task and the five activities listed in the work plan under this domain should be accomplished in the next mission. Also some activities listed under organizational development and the statistics law need to be initiated. This requires preparatory work to be done before the mission both by the local expert at the CAS and by the expert working in Stockholm but communicating by phone and e-mail with staff in the CAS. Input from the expert is also needed for the further development of the technical assistance plan, i.e. in detailing the terms of reference for experts in a variety of fields of statistics production.

2. Proposed specific objectives

The main purposes of the mission are to support the implementation of the strategy plan and to start the implementation of the institutional development plan with priority for developing a new human resources structure and a plan for building staff capacity and capability.

3. Main activities to be undertaken

3.1. Preparations in Stockholm

- 3.1.1 Collaborate with the resident international expert to develop terms of reference for the expert missions to the CAS in the technical assistance plan and on other upcoming issues in the implementation of the strategy plan,
- 3.1.2. Draft memos on items 1.1 and 1.2 in the annexed work plan as preparations for discussions and decisions by the CAS on a new staff structure (item 1.3),
- 3.1.3 Support the local expert in her work with the benchmark survey of present staff capacity and capability at the CAS (item 1.4) as a basis for the plan for staff capacity and capability building (item 5),
- 3.1.4 Initiate work on items 2.1 and 2.2 in the annexed work plan as preparations for a workshop on principles of organization for statistical agencies

3.2. *Activities during the mission to the CAS*

- 3.2.1. Follow-up of the implementation of the strategy plan, in particular the preparations for the household survey and the update of the 1996 database on buildings, dwellings and establishments, and the technical assistance plan and propose the changes that may be needed;
- 3.2.2. Assist the CAS in developing a proposal for a new staff structure for the CAS, eventually to be regulated in a new government decree on CAS;
- 3.2.3. Assist the CAS in developing a plan for staff capacity and capability building sufficient for a modern system of official statistics for Lebanon;
- 3.2.4. Conduct a workshop/seminar on organizational principles for statistical agencies with the CAS management team;
- 3.2.5. Define the tasks to be accomplished in the next mission and the preparatory work by the expert to be done in Stockholm

4. Location

Central Administration of Statistics in Beirut, with preparatory work in Stockholm

5. Expected duration and start date

Three weeks, of which up to seven days for preparatory work in Stockholm and two weeks for the mission to Beirut, starting 26 July 2001

6. Expected outputs

Memos as detailed above, progress reports and a final mission report on the tasks fulfilled

7. Reporting arrangements

The report should follow the guidelines for mission reports of Short Terms Experts. Deviations are possible, provided that these are discussed with the PMC Team Leader

Annex:

Work plan and technical assistance in the ARLA program for institutional development at the CAS

Memo 2001-08-05
Sten Johansson

Follow-up of the strategy plan

1. The four elements of the November strategy plan

The strategy plan for economic statistics system building for Lebanon that was adopted by the CAS in November 2000 and slightly modified in May has the following four components

- 1 Update of the 1996 registration of buildings, dwellings and establishments to function as sampling frame for household and economic surveys.
- 2 A household survey with January-December 2002 to measure level and structure of household production and consumption for the National Accounts
- 3 A set of economic surveys of the main branches of production to be carried out in the second quarter of 2002, and
- 4 An exercise to produce some provisional National Accounts estimates for the years 1997-2000 based on available data

The critical assumptions listed in the plan were (1) that vacancies of higher-level technical staff in the departments for production statistics, national accounts, household surveys and information technology are filled in time for the new staff to be trained in the preparation process for the major surveys to be implemented in years 2002 and 2003 and (2) that all government institutions are able to cooperate fully with CAS in a coordinated effort to establish a modern statistical system for Lebanon

Below is a summary of information from meetings with DG Maral Tutelian, members of her management team and of the ARLA team for CAS Friday July 27th to Monday August 6th.

2.1. The update of the sampling frames

The update of the 1996 registration of buildings, dwellings and establishments must be made before the annual economic surveys that should go into the field in the second quarter of 2002. The update will require 3-6 months in the field depending on the number of fieldworkers to be used, (from 300 to 500). Preparations before will take about 3 months and data processing after fieldwork 1-3 months again depending on number of temporary staff for data entry. Questionnaire and manuals are comparatively simple but pilot exercises are needed to calibrate the instruments and the logistics plan

to recruit, train, supervise and coordinate some 300 fieldworkers that will be needed in the field. However, the cartographic preparations will be fairly complex since a modern technology with digitised maps for GIS (a Geographic Information System) should be used. This modern technology would substantially improve the quality of the cartography needed for effective sampling and fieldwork and also make all future updates easier and less costly.

It would also be desirable to *update* the 1996 registration, instead of just doing a new registration and database. An updated database instead of a new database would entail more work on the database design but would also give higher data quality and valuable data on change in the Lebanese economy.

Preparations of the GIS and the database design could not start until new staff was in place at the CAS Computer Department. This was an absolute requirement since the Computer Department has only one qualified technical staff. This is not enough even to run the present computer network and manage the limited data processing work of the CAS at present. Two analysts and four programmers would be available when the recruitment process is completed.

With authorization from the Government for the provision of digitised maps to CAS and the required staff in place the ARLA project would provide two international experts, one on GIS and one on database design. Terms of Reference for these expert missions were needed and the recruitment process could start.

These were the prominent factors to take into account for the implementation of the strategy plan, which were identified in my previous mission 18 May -- May 4. Already then there had been a substantial delay in the implementation of the November plan because the critical assumption on filling 50 of the vacancies of technical staff at the CAS by the end of the first quarter had not been satisfied. However, the recruitment process for filling twelve vacancies that included the six for the Computer Department was in full swing.

The continued process has run into one expected and one unexpected problem. The appointment committee and CAS by early June finished the selection of the twelve candidates to be recruited and sent the list to the government to finish the appointment process. It was known, of course, that the procedure normally would take until September to process the appointments but there was some hope that it could be done quicker in view of CAS' urgent need to strengthen the staff capacity particularly in the Computer department for the update to start. However, it now seems the process will proceed normally. There is no longer any hope that the new staff will be in place until September at best.

The unexpected problem is that the delivery of the digitised maps from the army has been held up in spite of the fact that the CAS by early May had completed the agreement with the Army, including an agreement on the cost for which the CAS has coverage in its budget. When the CAS sent the deal to the government it was asked to supply more information and justifications in several rounds. The CAS complied with these requests in writing in early June but it has not had any response to its call for authoriza-

tion of the deal so far, almost two months later, an even after a reminder to the Director-General of the Council of Ministers in early July. Unfortunately, this means that the preparatory work for the GIS system, needed for the update, has not started.

As a consequence, the recruitment process for the international experts has also been put on hold, also formally by the Minister of OMSAR in a letter to the CAS. The required Terms of Reference were drafted and approved. When circulated in early July they attracted very qualified and experienced international experts for the two tasks. The continued process must, of course, stay on hold until both maps and staff are in place at the CAS. However, OMSAR approval for the five missions may additionally have to wait for the approval of the whole ARLA workplan.

2.2. The household survey

The preparatory work for the Household survey must go into the field in January 2002 according to the strategy plan. It would be preferable that the updated sampling frame is available before the survey goes into the field but not strictly necessary. The complexity of this exercise arise mainly from the plan to combine the family budget survey with a living conditions and poverty study requested by the Ministry of Social Affairs.

The preparatory work for the survey has started with technical assistance provided by the INSEE of France outside the ARLA project. Two experts from INSEE visited the CAS for two productive weeks in July. A draft report is available in French. The work was done in two groups. One group consisted of the French sampling expert, Mr. L. Wilms, the ARLA local expert Dr. Zoha Khalil and two members of the CAS management team. This group discussed variance estimates for different sampling designs. Their calculations indicate that a sample of 8 000 households for the family budget survey is needed to provide acceptable estimates of crucial indicators for the six mohafazats within a realistic sample size. If only national estimates are needed the sample size could be considerably less, about half, or some 4 000. The regional estimates are needed for the study on poverty requested by the Ministry of Social Affairs that would like living conditions estimates even for administrative levels below the six Mohafazats. The national estimates of level and structure of total private consumption that are needed for the National Accounts would be considerably improved by the 8 000 sample size in comparison with lower levels.

The other group consisting of the French expert, Mr. D. Verger, and two members from the CAS management team, discussed the survey design and the questionnaire starting from the designs used in the 1997 household budget and living conditions survey. A number of problems were identified that are relevant in the Lebanese context, among these the length of the diary period and how to capture consumption of some important items that are purchased in bulk once a year by many Lebanese households, such as oil and olives and that, not one, but two pilots may be needed before final decisions on survey design can be taken.

The French experts were able to commit themselves to further short term missions on sampling design but not to any plan for repeated missions on survey and questionnaire

design all through the second half of 2001 that is required. The complexities of the household survey design are at least as intricate as those of the economic surveys for which ARLA has allocated short-term missions of together four man-months. The complexities of the household survey design and execution would be considerably less if the Ministry of Social Affairs can accept that the living conditions and the poverty study is limited to estimates at the Mohazavats level and to the set of indicators that can easily be integrated with the Family Budget Study.

The university-trained staff of two subject matter statisticians + one new recruit to be in place in the Social Statistics Department (SSD) by September forces me to recommend that the living conditions and the poverty study are limited to what can be integrated with the family budget study. These limitations are recommended also in view of the limited resources of the CAS for data processing and report writing.

2.3. The annual economic surveys

There is somewhat more time for the economic surveys than for the household survey and the update because fieldwork is planned to start only in the second quarter of 2002 when most of the enterprises have closed or are closing their books on 2001. With the other delays, time is now running short also for this item in the strategy plan. The preparations for the set of economic surveys, to cover the main sectors of production (manufacturing, construction, transport, domestic trade and other services like restaurants, hotels, etc), which must now start mainly include questionnaires and manuals and, of course, training of the subject matter staff in connection with pilot studies. The sampling design will be needed only later, at the end of the first quarter of 2002.

One issue that needs serious consideration concerns the number of university-trained subject matter staff in the Economic Statistics Department that needs to be available. The number of staff that would be needed strictly for the preparations of the set of surveys discussed above could be limited to 5-6 but the execution of the pilots and the main fieldwork operation would be very weak since there is no experienced fieldwork organization. Additionally, there is the data processing and quality control phase and the reporting phase when at least five different reports must be produced by inexperienced staff. The whole process must be conceived of not just as an execution process with required timeliness but also as a training process to achieve some level of sustainability.

This is why I recommend that there are 15 university trained subject matter staff available (three for each of the sector surveys) at the start of the preparatory phase with questionnaires and manuals but latest when the pilots are to be executed. A substantial input of technical assistance is needed. The ARLA plan would provide for four man months.

Two great assets for the economic survey operation have been mobilized. One is regional cooperation between national institutes of statistics. The Palestinian Bureau of Statistics (the PCBS) in Ramallah has made available on CD-ROM all the questionnaires and manuals in Arabic for all the economic surveys needed for economic statistics and National Accounts compilation according to SNA 93 developed by the PCBS.

with international technical assistance. The Department of Statistics (DOS) in Amman will make its similar set of questionnaires and manuals available shortly, according to an agreement at a recent meeting of Director-Generals in Damascus.

The second great asset is that a very suitable international expert of Jordanian extraction with precisely relevant experience from DOS in Jordan, PCBS in Palestine and recent expert missions to Jemen is available for (at least) four man-months of short-term missions over the next twelve months. Mr. Hilmi Dabbagh assisted the PCBS as long-term advisor on economic survey management and National Accounts compilation Jan 1996-Dec 1998. I know him very well since we worked together at the PCBS for all of the three years. He has excellent references from both the PCBS then Director of National Accounts and from the missions to Jemen attesting not only to his professional expertise but also to his social talent to affect knowledge transfer. His only liability for the job is that he is now an Australian citizen so an exception from the EU citizenship requirement is needed.

2.4. Provisional National Accounts estimates for 1997-2000

The resident ARLA expert on National Accounts has now completed a draft report on the exercise to compile some National Accounts estimates for Lebanon for 1995-2000. He has made an inventory of available data with professional quality control and done very detailed work on correspondence tables between different classifications needed for the exercise but also useful for any future work on National Accounts for Lebanon. His work with the inventory of available data and quality control of what is available leads him to a compelling conclusion. The gaps in the data and the large inconsistencies between the available data sources makes it impossible for the CAS to produce any National Accounts statistics that reach even the lowest international standards for official statistics. Even some kind of provisional estimates that could be released officially in the name of a national statistical institute cannot be made. The main problems that he has identified as the basis for his conclusion are the following:

1. To use the 1994-95 National Accounts exercise one must accept, for instance, that private consumption is 106 percent of GDP which is rather strange but possible for a country with unusually large transfers from abroad.
2. The 1994-95 estimates of level and structure of private consumption are quite inconsistent with the 1997 data from the living conditions survey. A private consumption estimate could possibly be made for 1998 using the 1997 data as baseline but for the following years estimates would be "guesstimates" with little basis in real data. Since private consumption is a very large component in the GDP – if not 106 percent – the estimates of GDP as a whole would be a "guesstimate", which is not acceptable as official statistics and not even as provisional official estimates.
3. The gaps on the production side are equally appalling. There are no real data for any year on construction and the large services sectors (domestic trade, transport, hotels, restaurants, etc.). The statistics from the 1998 surveys of manufacturing industry are very inconsistent with the 1996 CAS registration of number of enterprises and thus

(probably) also of number of employees as well as of value added in manufacturing industry.

4. The reasonably acceptable statistics may be on public consumption and on foreign trade although deep-going quality analysis has not been possible because crucial information in adequate detail has been available to the expert only in Arabic

All National Accounts estimates for the years 1994-2000, which are in circulation in various reports, suffer from the same gaps and inconsistencies. It must be emphasized that no National Accounts estimate can be much better than the underlying system of economic statistics

The CAS management team as well as the ARLA team for the CAS have provisionally accepted the draft report and its main conclusion. This conclusion must be a disappointing and frustrating piece of news for all parties with interest in a high-quality system of national official statistics, all of who in the end must depend on the system of official statistics for transparency of the economic and social situation and the main development trends. The draft report will be finalized and submitted to the PMC teamleader on August 11 to be able to incorporate revisions and some new material before the expert leaves

The way out of this situation offered by the CAS and strongly supported by the ARLA team for the CAS, is the November strategy plan that can only be implemented by a strong cooperative effort by all government institutions supported by a strong team of international technical experts

3. The follow-up of the technical assistance plan for the CAS

My previous mission April 16 – May 4 and collaboration with the resident long-term adviser on National Accounts, Mr. Idilio Freire, resulted in a plan for technical assistance for the CAS for the implementation of the strategy plan. The plan was discussed and approved by the CAS and submitted to the PMC teamleader, Mr. Dimitrios Sfikas in my mission report. This plan included sets of missions by experts in five areas: GIS, database and business register for the update, on business survey design and management for the economic surveys and on Balance of Payments and the Rest-of-the World Account in the National Accounts. Technical Assistance for the household survey and for Foreign Trade would be provided by the INSEE of France outside the ARLA program.

Terms of Reference for the five experts were drafted by Mr. Freire and me in correspondence and discussed and approved by the CAS. The Terms of Reference were circulated by Arkadis BMB and by me. A positive factor in this situation is that the Terms of Reference have attracted some very qualified experts from the international statistical community. If the prime candidates for the five expert missions can be recruited they would together constitute a rather formidable team. The quality of the experts who have offered their services is so high that it would be a pity not to accept more time from them than was initially planned. Mr. Freire has provided a brief spreadsheet summary

of the credentials of the ten candidates from among whom we recommend that at least five be recruited (Annex 1). As already reported, the contracting process has been put on hold until three requirements have been fulfilled; the agreement on maps between the Lebanese Army and the CAS must be authorized, the new recruits must be in place and the ARLA workplan as a whole must be approved by OMSAR.

A significant event in this area is that the resident long-term adviser on National Accounts of the ARLA team for the CAS, Mr. Idilio Freire, has been offered the post as Chief of the Annual National Accounts of the National Statistical Institute of Portugal. This, of course, is an offer and an opportunity that he cannot refuse as anyone can understand. He has tendered his resignation, which will be effective as of August 21. This is a great loss for the team and for CAS, a loss that most importantly threatens the continuity of the ARLA assistance operation for the CAS.

The issue is whether a new long-term adviser for the National Accounts should be recruited or some other solution should be sought. Since further work on provisional National Accounts estimates for 1995-2000 is not very meaningful according to his report at the present and work on National Accounts compilation for 2001 cannot start until data from the economic surveys of the main sectors of production will be available only early September 2002 a different profile for his successor should be established. Mr. Freire's and my recommendation in that case would be for an expert on business survey design and management.

However, our alternative and preferred recommendation is that the man months reserved in the plan for Mr. Freire be reallocated to the five (or six) experts to be selected from among the ten candidates who have announced interest and submitted their CVs. Some of the candidates may be persuaded to allocate more time to work for the CAS than provided for in the plan and in the Terms of Reference. A rather formidable expert team could be formed for the CAS if the recommended experts can in fact be recruited.

Work on institutional development issues have started according to the technical assistance plan submitted to the PMC teamleader, Mr. Sfikas, in the report from my previous mission. The five main domains for institutional development identified in the mission report are "Human resource development", "Organizational development", "The Lebanese statistics laws", "Financial flexibility", and "Computer system development". The "Human resources development" is the priority task and the five activities listed in the work plan under this domain should be accomplished in the next mission. Less has been accomplished than planned in the Terms of Reference. Preparatory work in Stockholm could not be done for "up to" seven days. Preparatory work at the CAS by the local consultant, Dr Zoha Khalil, on the survey of staff capacity and capabilities had been done but lots of work remained.¹

What we can do now is a very detailed account of present staff capacity and capabilities at the CAS. We have also developed a preliminary strategy for staff capacity building and capability building at the CAS.

¹ Dr. Khalil has stopped working because she has not been given a contract according to the plan and she has not been paid since May. This very irregular situation must be solved to the satisfaction of Dr. Khalil.

Memo 2001-08-11
Sten Johansson

Statistical agency needs for staff – and the needs of the CAS

1. Introduction

There is no international handbook on statistical agency needs for staff that can be an easy reference to evaluate the needs for staff capacity and capabilities of the CAS at the present and in the longer run. This has to do with the fact that there is also no handbook that lists the statistical programs that are regularly produced and released in the developed countries. Which set of official statistics with what dept and analytic sophistication that must be produced will determine the number of staff that a national central statistical institute will need, provided that modern methods, technologies, organization principles and qualified staff is used. In most countries it is the government that decides the set of official statistics to be produced and most governments then leave it to the statistical authority to decide the best methods and means to produce the statistics taking into account both quality and cost.

Using what I know from experience and some research I started to list the subject matter statistics programs and the support activities that are needed to operate that set of programs. I set up the programs and support activities as organizational units, call them sections, and then grouped the sections into wider organizational structures, call them departments, and I have a rather large *Organigram 1* with no less than 53 cells, of which 24 represent statistics programs with a regular (monthly, quarterly, annual or intermittent) output. I will then compare this organigram with the programs and the activities that are authorized in the Decree on CAS that was promulgated by the Lebanese Government in 1980, now more than 20 years ago.

The purpose of this memo is not to discuss organizational principles for statistical agencies -being the object for a later mission - but to provide a basis for the assessment of the need for staff capacity and staff capabilities at the CAS in the longer run when a core official statistics system has been built but also in the short run. I will be as detailed and precise as possible on what is needed at the present to implement the November 2000 strategy plan.

2. The structure of programs for a “normal” statistical agency

In this theoretical structure there are four subject matter departments and four support departments. The statistical programs in the Economic Statistics Department (ESD) are more or less given by their role to provide most of the basis for the National Accounts. There are five sections to cover all the larger ISIC branches except the primary category-

ries, which are here placed in the Natural Resources Department (NSD). The programs in the National Accounts Department (NAD) are also standard. It is here assumed that short-term indicators are routinely handled by the publication section that is releasing indicators from many sections and from other producers in a monthly bulletin and on Internet.

The statistical programs in the Social Statistics Department (SSD) correspond to the main social concerns, which often are also reflected in the structure of ministries that will be the main users. The list in the organigrams can be extended by including also a statistics program on Crime and Victimization. The programs have their ministries as main users but Household Economy and Labor Force Statistics are also very important for the National Accounts. It should be noted that Gender Statistics has become a regular statistics program in many countries. Ministries of Education and Health with national education and health care systems can produce statistics on number of schools, teachers, pupils and doctors, nurses and hospital beds respectively based on administrative records from the annual budgeting and licensing process. In those cases the statistical agency simply get those statistics from the ministry to include in the statistical yearbook. More staff is obviously needed when the statistical agency is responsible for the processing of such administrative data or even for the data collection, which may be needed in countries with mostly privatised education and health care systems.

The statistical programs in the Natural Resources Department (NRD) include traditional agriculture. This is still often a large statistical activity with details on number of various livestock, areas planted with what seeds and tons harvested and yields per hectares, etc. related to various regulations and policies of governments. However, the growing environmental concerns in society and in statistics may nowadays motivate the grouping together in a Natural Resources Department the primary activities to extract and transform natural resources with environment statistics mostly concerned with the negative consequences of human activities in the form of pollution of air, water and soil.

The subject matter programs need support services of various kinds, a modern computer systems, a fieldwork organization, administrative services and services related to the dissemination of statistics. Their organization will be discussed in the future mission on organization development. Here it is assumed that all these are centralized when we discuss staff capacity and capabilities. Most importantly, it is assumed that most data capture in Lebanon must still be by done on paper by pencil by interviewers in a central fieldwork department. The modern means of communication by ICT have not yet penetrated widely into enterprises and households and even the system for surface mail seems not to be fully trusted by households and enterprises in Lebanon.

A modern computer system with servers and PCs in a network is now a requirement. To do cartography with digitised maps in a Geographic Information System (GIS) is a great technological step forward to more efficient sampling frames that can be more easily updated and also make more effective fieldwork possible.

Organigram 1. Statistical programs and supporting Activities in a theoretical national statistical institute

Director General's office

Economic statistics	National Accounts	Social statistics	Natural resources	Computer systems	Fieldwork organization	Dissemination department	Administration department
Director's office	Director's office	Director's office	Director's office	Director's office	Director's office	Director's office	Director's office
Manufacturing industry	Annual Accounts	Demographic statistics	Land use statistics	Systems development	Central coordination	Publication section	Administration section
Construction statistics	Quarterly accounts	Household economy	Agriculture, forestry, fishing	Technical support	Regional office (1)	Printing section	Accounting section
Transport statistics	Balance of Payments	Labor force statistics	Energy statistics	Data entry & editing	Regional office (2)	Library & archive	Procurement & equipment
Domestic trade	Nomenclatures	Education & research	Environment statistics	Central registers	Regional Office (3)		
Other Services		Health & medical care	Tourism statistics	GIS	Regional office (4)		
Foreign trade		Housing statistics			Regional office (5)		
Prices & indexes		Gender statistics			Regional Office (6)		
		Culture & recreation					

3. The normal set of statistical programs – and Lebanon's

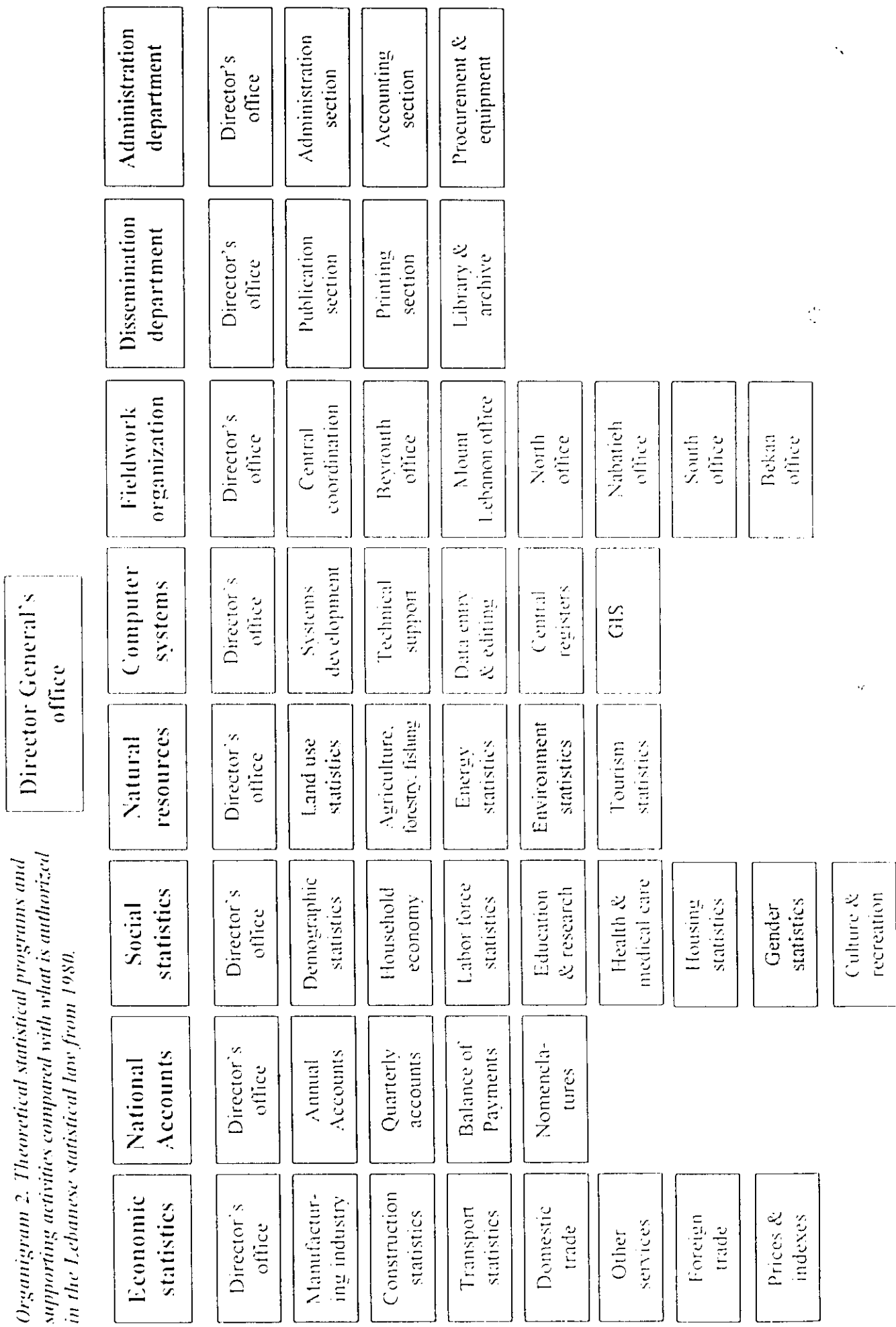
Organigram 1 with statistical programs and support activities was designed to reflect what kinds of statistics are normally produced as official statistics and the kinds of support activities that are everywhere needed to produce the statistics. Governments by Law or Decree decide what statistics should be produced and released as official statistics but nowadays normally let the statistical agency decide with what means and methods within a budget in money terms only. In Lebanon the regulation of statistics is in a Decree in 1980, which is still in effect and must be followed to the letter by the CAS. This decree regulates in detail what statistics should be produced by the CAS with what categories of staff in extreme detail and in what organizational units in somewhat lesser detail. In *Organigram 2* I have indicated the statistical programs and support activities that are not authorized by Lebanese law.

The 1980 Decree actually explicitly mandates all the statistics programs in this "theoretical" statistical institute except three, Gender, Land Use and Environment. All the three missing programs have been developed in the last two decades. Of support activities, only computer based GIS-technology (Geographic Information Systems) was not developed at the time of the Decree. GIS is both a cartographic tool and an analytic tool in official statistics. It works with digitised maps where enumeration areas ("ilots") and buildings are numbered and located by coordinates. The maps produced with this system are superior to the system of hand-drawn map sketches with which fieldworkers could be provided to locate buildings with the establishments and dwellings in a sample. The numbered ilots and buildings are matched with a database that provides statistical characteristics on ilots and buildings, establishments and dwellings. The maps can be continuously updated with changes in geographic details like a new road and new buildings by remote sensing and the statistical database updated with the statistical characteristics of new buildings and establishments by fieldworkers. GIS-specialists are a new category of professionals for a statistical agency.

Whoever drafted the decree must have been very familiar with official statistics and statistics production at the time, what was done in other countries and what was needed in terms of staff. This becomes a big problem when we look at how statistics production using ICT is staffed today. For one thing they could not foresee the need for GIS-specialists. The detailed regulation of organization and staff structure in the 1980 provides a picture "frozen in time" of the state of the art of statistics production.

Internet is not a cell in the organigram in spite of its importance for statistics dissemination as well as for qualified work in a statistical agency, because it is now everywhere in the organization. Many statistical agencies routinely release their all their statistics on their home page free of charge. Subject matter and other technical staff will find on the Web almost all sister statistical agencies in the world, international organizations with advanced work in statistics such as IMF, OECD and Eurostat. Many release not only statistical data but also documentation including questionnaires and manuals. Most of the international manuals are on the Web. Access to the internet and e-mail communication with colleagues in sister institutes around the world is becoming a very important tool to be updated on recent developments and new ideas in the field.

Organigram 2. Theoretical statistical programs and supporting activities compared with what is authorized in the Lebanese statistical law from 1980.



4. Staff capacity and capabilities in the model statistical institute

In our model statistical agency the number of staff, their qualifications and their organizational unit is decided by the statistical agency within the general regulations of state employment. Employment is mostly permanent but the actual occupancy of higher positions is often decided for 3-year periods at the time, which very much increases managerial flexibility in the allocation of staff to positions.

In our model agency all staff in the subject matter departments have university training and all of them would be generally computer literate and also have the specific computer skills needed for their specific jobs. All of them needs to be bilingual to the point where they can read technical literature and correspondence in English or French. At least one in each section must be able to draft bilingual statistical reports and at least one in the department must be able to finalize the drafts. The tasks of departments and sections will be

1. to continuously assess the information needs in an active user-producer dialogue with the actors in the different sectors, most specifically the ministries and for economic statistics also the Central Bank
2. to follow the discussion on methods in the literature and in the international statistical community in their field on the Internet,
3. to be responsible for the sampling and survey designs and methods for data capture in their area,
4. to develop and periodically revise all the instruments to be used: questionnaires, manuals, classifications, calculations, etc,
5. to contribute to the training of the staff to be used in fieldwork, coding and data entry for their project,
6. to set up the systems of quality control including variance estimations,
7. to do all the tabulations and bilingual reports to be released on internet, in other electronic form or on paper, and finally
8. to be responsible for the subject matter content of the documentation of the data bases to be archived

It stands to reason that these kinds of very qualified tasks require staff capability building over a long period of years when the start is with young university graduates without much practical experience. Only the exceptional staff member can do all these tasks well, even after many years of experience. However, collectively the staff of a department needs to be able to do those things at least acceptably

All the four subject matter departments would need a director's office, the department director, one assistant to the director and one secretary or clerk for the whole department. Each of the sections would have a staff of two to four with university training. For the Economics Statistics Department a modern degree in economics, business administration or accounting at least some at the MA-level combined with statistics and

training in quantitative methods. For the Social Statistics Department a modern degree in sociology, demography other relevant discipline that includes statistics and training in quantitative methods is preferable. For the Natural Resources Department a number of other subject matter disciplines, agriculture, biology, chemistry, again combined with statistics and training in quantitative methods is needed. Each department will need one specialist statistician for sampling and estimation.

Whatever their university background and level they would need several years of on-the-job training and experience from two or three annual rounds in statistics production in order to be able to serve effectively as official statisticians. The job descriptions for the staffs in the subject matter departments should not be by university discipline but by level of experience one the job and of responsibility in the organization with four or five levels, for instance trainee, assistant statistician, statistician and senior statistician. The Department Director would be a senior statistician. Section Chiefs would normally be statisticians or senior statisticians. The requirements both for theoretical grounding in related subject-matter disciplines and on-the-job training and experience would be higher for staff in the National Accounts Department as well as for some of the subject matter specialists in the social and natural resources sectors.

The fieldwork department will be the biggest department in this structure but much less than half of its staff needs to be permanent employees. Rather few among the permanent employees will need university training. The management level in the department must have a university degree and on-the-job training and experience in fieldwork organization. The specialties to be cultivated by the permanent staff are in practical logistics and personnel administration, to set up and administer national fieldwork operations with up to 300 interviewers in the field, who must be recruited, trained, supervised, coordinated and motivated to do a good job.

The 1980 mainframe technology in the computer department needed centrally a corps of analysts and programmers doing all the tabulations besides serving the machines. The production statisticians in the subject matter departments do today all the tabulations. The role of the central computer staff is to maintain the distributed computer system with servers and PC's in a network, to provide maintenance and technical support in a help-desk function, to do more general or complex systems development and to maintain the large databases accessible for easy tabulations and analysis by the subject matter staff. A few of the analysts and programmers must specialize in GIS-methodology.

The main difference between 1980 and the present is the development in technology with computers with enormous capacity both in hardware and software. The fruits of all these developments for a statistical agency are the possibilities to do more, with higher quality with less staff. However, this is only if the staff is trained and experienced enough to use the technological wonders of our time to their full capacity. A modern university education in any of the economic, social or natural sciences that includes empirical work with data using computers provides a short cut to acquiring the capabilities needed for statistics production but on-the-job training and experience is still necessary. If they do not start with a good university education as their capability base it

will take much longer, if ever, to acquire all the skills listed for the departments and sections to have as collectives.

What has been said so far is that countries do not vary much in what areas are covered by official statistics to develop, plan and monitor policies in the various areas of social, economic and environmental concerns. Lebanon's lawmakers in 1980 provided for much the same statistical programs as other countries fairly developed countries had at the time. They allocated a total of 256 staff of which 99 for university- and college-trained. This would allow for a system of core official statistics for the areas listed but only a rather moderate level of analytic sophistication and dept. If that rather moderate level of analytic sophistication and dept is accepted also for Lebanon in the coming years the number of staff needed to produce those statistics routinely after some five years has probably decreased a little from the 256 but the required capabilities of the staff will have increased considerably. We now need to go into a rather detailed exercise with figures

5. The model institute – and the CAS realities – in some detail

This model institute set up is today utopia compared with the present situation at the CAS but not very utopian compared with what the 1980 decree provides. The Decree provides for a total of 99 positions for university- and college-trained staff for the five departments, which will be directly involved in the implementation of the November 2000 strategy. Of these positions, 16 are filled with permanent staff and three on contract at the present as of August 10. These 19 are thus the baseline capacity at that date, a capacity that obviously must be increased for the CAS to be able to implement the strategy plan

We know that in the near future the CAS will lose one of the 19. He will be on leave for study abroad. We also know that capacity will increase by 14 university-trained staff when the formal appointment process is completed, probably in September.¹ Before we go into the further capacity building that is needed for the implementation of the November strategy, we need to establish the baseline *capabilities* for statistics production of the 19 presently available.

6. Present capabilities for statistics production of the CAS

In our survey of staff capacity and capabilities at the CAS we have tried to establish baseline data for future monitoring of capacity and capability building at the CAS. We have concentrated on the 19 university- and college-trained staff. The university degrees staff hold are in many cases only indications of the capabilities they have for the tasks in statistics production. We have developed a simple grading scale with four steps: 0=None or minimal, 1=Some, 2=Good, and 3=Very good to gauge staff capabilities in

¹ The recruitment process that began in February has given the CAS a total of 14 new recruits. The remaining three are assistant documentalists, who were found to be qualified for vacant positions at the CAS. The regulations in force say that if there are qualified candidates for vacant positions, the positions must be filled, even if they are not in the highest priority for the CAS at the present.

(1) statistical theory, (2) technical language ability in Arabic, English and French separately and (3) computer skills. Below we relate the specifications of the various levels on each of the subcomponents.

1. Statistical theory and practice

1.1. Basic understanding of statistics

1. Can read a table and a graph, understands percentages "all three ways" and means
2. Knows the meaning of various significance tests and can critically spot obvious deficiencies and contradictions in a table.
3. Has full understanding of statistical tables and graphs and can critically analyze tables and graphs both with tests and logically, as well as the quality of underlying data

1.2. Sampling and estimation

1. Some understanding of sampling and why it is possible to generalize from a sample to a population
2. Good understanding of probability theory, able to ask questions and discuss a sampling design with a specialist
3. Can develop various sampling designs and make estimations

1.3. "Econometrics"

1. Understand the meaning of parameters and coefficients in multivariate analysis
2. Can do simple multivariate regression analysis and interpret results
3. Also multivariate analysis with non-classical models

2. Technical language ability

2.1. Reading technical text, same scale for Arabic, English and French

1. Can apply a classification, can read and understand a simple manual
2. Can critically apply a classification and understand and apply more complex manuals
3. Can read and critically understand a scientific paper in statistics

2.2. Drafting reports, same scale for Arabic, English and French

1. Can provide a useful first draft report
2. Can provide a good draft possibly after receiving comments and suggestions
3. Can provide a final draft report

3. Computer skills

3.1. MS Word in any of the languages

1. Can only type and use correct spelling
2. Can type and format text
3. Can insert objects, table of contents and use most other normal facilities

3.2. Excel

1. Can do data entry in a spreadsheet.
2. Can format tables, do simple calculus and graphics
3. Can use all normal facilities, with the help of manual if needed

3.3. SPSS

1. Basic tables and statistics summaries
2. Merging files, recoding data, etc
3. Using all normal facilities with the help of manual if needed

Table 1 provides a summary of basic capabilities of the present 19 university- and college-trained staff from a survey of the staff of the CAS. When reading the table it must be understood that none of the 19 present university- or college-trained staff has practical experience from some rounds of annual surveys. Some have participated in one or two of the studies made by the CAS in recent years, most recently in the Unicef survey and the census of buildings in the liberated zone in Southern Lebanon. The results of the survey of staff capabilities add further evidence to the conclusion that both capacity and the capabilities of staff must be increased for the CAS to be able to implement the strategy.

Table 1. Capabilities of the 19 university- and college-trained staff at the CAS as of August 10, 2001.

	0=No	1=Some	2=Good	3=Very good	Average
Statistical theory:					
Basic statistics	6	6	3	4	1,3
Sampling and estimation	14	1	0	4	0,7
Econometrics	9	5	1	3	1,0
Arabic					
Reading technical text	2	7	6	3	1,6
Drafting reports	7	6	2	3	1,2
English:					
Reading technical text	4	4	7	4	1,6
Drafting reports	7	5	6	1	1,1
French:					
Reading technical text	5	4	6	3	1,5
Drafting reports	5	5	5	4	1,4
Computer skills:					
Word	1	3	7	8	2,2
Excel	1	7	3	8	1,9
SPSS	11	4	0	4	0,8

The CAS has four young statisticians of rather exceptional potential. The computer skills of some of the other staff members are quite acceptable. The collective language skills needed for reading and drafting technical reports are also acceptable in view of the little practice that most staff have. On statistics theory the capabilities of other staff seem surprisingly low.

The collective capacity and capabilities of staff will increase when the eleven new recruits are in place, since only candidates with a modern university education have been accepted. However, few of them come with much experience. The way to build capabilities in this situation is to engage all present and new staff in the three big exercises of data collection that are the main elements of the November strategy plan.

and to provide them with an experienced team of technical advisors to provide intensive on-the-job training. *This in a nutshell is the strategy for staff capability building. Production and training must go together for the strategy to be at all realistic.*

7. The acute needs for staff to implement the November strategy

It must be emphasized at the outset that the three main elements in the strategy plan are major activities to undertake for any national statistical agency. For the CAS with its meagre record of large-scale data collection exercises, each of the activities will no doubt constitute a daunting challenge, each of them being national in scope. Each of them needs complex preparations with pilot surveys to calibrate the preliminary logistics plan. The exact size of the three activities cannot be given at this stage. A vigorous public relations campaign is needed to generate local support and public acceptance.

The update of the 1996 registration of buildings, dwellings and economic establishments will involve probably 300 to 600 fieldworkers to visit all buildings in the country to count dwellings and register economic establishments. The number will depend on the length of the fieldwork period and lots of other considerations that must be taken into account in the logistics plan for the fieldwork.

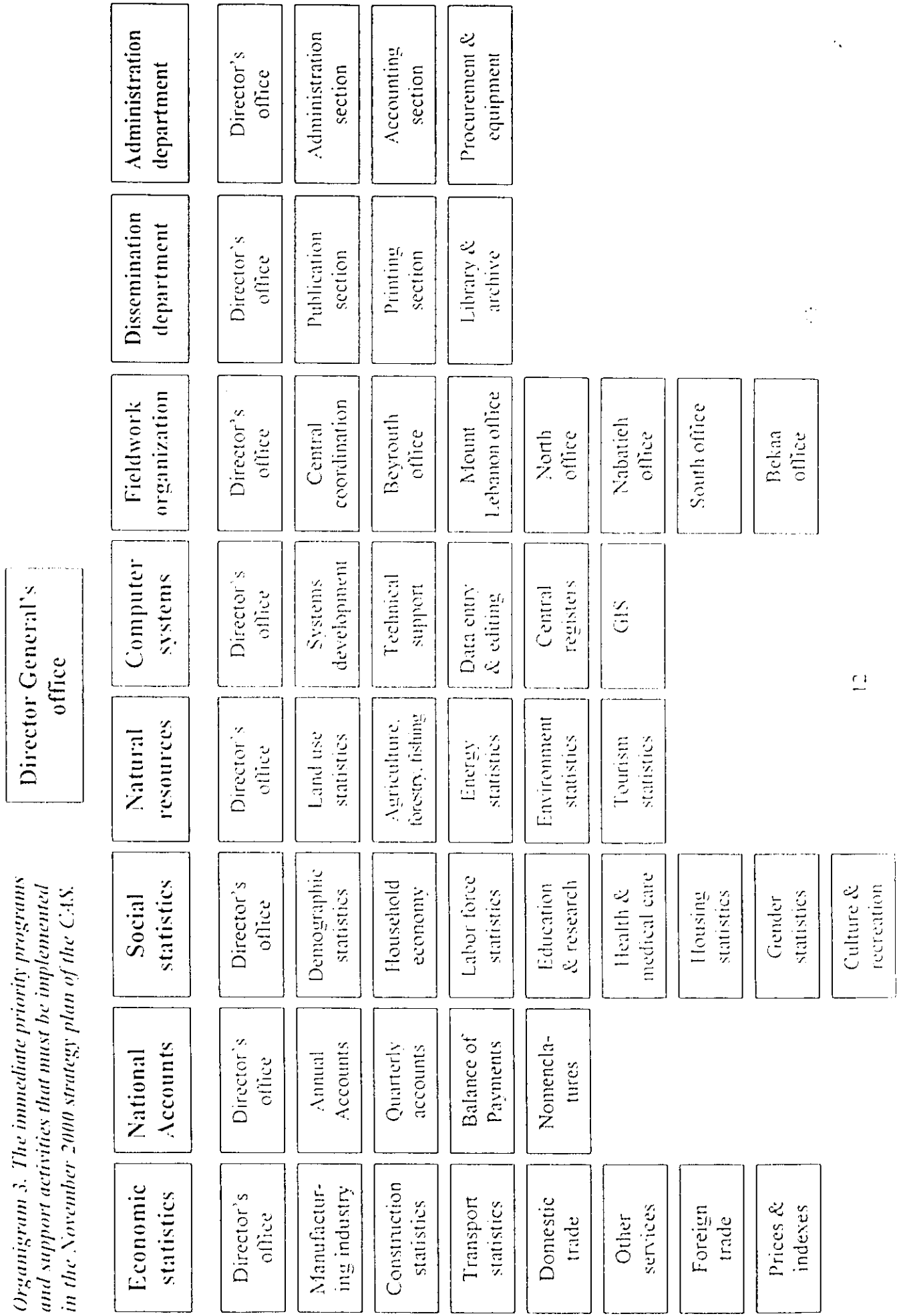
The household survey requires the participation of some 14 000 households, of which about 8 000 must be persuaded to record in a diary for a 14-day period all expenditures on consumption and all economic transactions in household production. A minimum of 100 fieldworkers must be recruited and trained to visit about 300 households three times each of 26 fortnights spread over the whole calendar year, if this design will be used.

For the economic surveys up to maybe 10 000 economic establishments will have to give a detailed economic account of income and expenditures during 2001 to enable calculation of value added in all sectors of production for the National Accounts. This survey will require special interviewers, preferably last-year students or recent graduates from university studies in accounting, business administration or economics.

Together the two surveys and the update of the 1996 sampling frame will not allow for much of other data collection activities for the next twelve months. The surveys will need to be strictly prioritised before all other activities. In *Organogram 3* the internal priorities for the CAS are indicated.

A realistic recruitment plan both for the short and the longer run must take into account an expected yearly staff turnover of up to 15 percent in the subject matter departments and maybe up to a 30 percent in the computer department. Realistically one should plan for the *initial* recruitment of three for each statistics program that is started. The November strategy plan implies that the "sections" in the Economic Statistics Department and the Household Economy section in the Social Statistics Department should be fully recruited in the short run and the National Accounts Department with some delay into 2002. The other sections in the Social Statistics Department and in the Natural Resources Department can be staffed gradually over some years as the various sector ministries find that they need official statistics continuously in their respective areas.

Organigram 3. The immediate priority programs and support activities that must be implemented in the November 2000 strategy plan of the CAS.



We also need to look at lower-level production staff for fieldwork and data entry. The two are necessary functions also for the strategy plan. The 1980 Decree provides for 57 positions for fieldworkers, of which 13 are filled, six of them on short-term contracts (journaliere). The average age among the 13 is 57 years. Two of them are out of service because of chronic illness.

The 1980 Decree provides for 22 positions for data entry, of which 13 are filled but also these employees are old, average age being the same as for the fieldworkers. It may not be a good idea to fill all the vacant positions for fieldwork and data entry with permanent staff since both these activities will have strong seasonal variation. Neither fieldwork nor data entry are normally good jobs for elderly people.

The 1980 Decree provides for 32 positions for clerks, secretaries, typists, of which 17 are filled. Of the 26 positions for janitors, guards, drivers, servants and telephone dispatchers six are filled. Rather few of the 35 vacant positions will need to be filled and if at all with the old staff from fieldwork and data entry.

7. Priorities in seven points

1. The five "sections" for the main branches of the economy. These may need to be staffed with three university trained staff each, to be trained and assisted by a qualified foreign expert to develop the questionnaires, manuals and logistics plans, to execute pilot surveys and training of fieldworkers for the annual economic surveys for 2001, to be carried out in the second quarter of 2002. Total 15 university trained are needed, of which 5 will be available including the 2 new recruits provisionally allocated.

2. The two other "sections" in the economic statistics department. They must have some staff to continue on-going activities in foreign trade and price indexes, both needed for the National Accounts later on. Total 3 university-trained are needed in the short term, of which x are available.

3. The update of the sampling frames: Since items 1 and 2 above will engage more than the presently available staff including the new recruits allocated to economic statistics the staffing of the update is a problem that needs a solution. However, there is no longer time to do three months of preparations of the GIS and the database and the pilot, the 3-6 months of fieldwork depending on the number of fieldworkers that can be put into the field the 1-3 months of data processing. The CAS has had to make the decision on technical grounds that the update can no longer be done in time for the economic surveys in the second quarter of 2002. The fieldwork will have to be done in the second half of 2002.

The National Accounts Department will not be an acute priority for the coming twelve months. The exercise to produce provisional National Accounts estimates for 1995-2000 will be reported with the conclusion that gaps in data and inconsistencies between available data sources are too large for CAS to warrant further attempts to produce such estimates. Furthermore, only few data needed for National Accounts compilation for 2001 will be available before September 2002 when the data from the economic surveys

are ready. Consequently, the two new recruits allocated to the National Accounts Department can be allocated for tasks in the Economic Statistics Department or in the Social Statistics Department. The National Accounts Department will need its present staff to collect and prepare other data for the National Accounts other than from the surveys (public administration, financial sector, Balance of Payments, Nomenclatures, etc).

4. The Social Statistics Department: That the household survey to measure level and structure of household consumption is carried out over the whole year of 2002 is an absolute priority to fill the largest gap in the available data sources for the National Accounts. This must therefore be the only activity in the Social Statistics Department, engaging all its meagre staff of two and one presently allocated new recruit. The INSEE of France will provide technical assistance to the household survey. Total 5 university-trained staff is needed in the CAS, of which 3 are available including 1 new recruit.

5. The Computer Department This department will be in a much-improved position to serve the strategy plan endeavours when the seven new recruits are installed. According to the CAS computer staff specialist, it will not be difficult to hire students from the IT-departments at the universities on temporary contracts to do the data entry for the GIS coordinates. The Lebanese Government has not been able to decide in time whether or not it can authorize the agreement between the Army and the CAS to make the system of digitised maps available for GIS cartography needed for the update. If the Government decision finally is no to the agreement, the CAS will have to revert to the old less efficient method with hand drawn maps on paper. In this case a conventional cartographic expert will be needed instead of a GIS expert. The staffing of the data entry and editing section in the Computer Department can be mainly done by staff on temporary contracts for the time being. Total 10 university-trained staff is needed for the strategy in this department, of which 8 are available including 7 of the new recruits. Additional staff on temporary contracts for short-term projects is needed.

6. The Fieldwork Department: The eleven old fieldworkers, who are presently available, may serve as coordinators or supervisors for the otherwise completely new temporary big teams of fieldworkers that will be needed for the three fieldwork exercises. Temporary offices will be needed in the six main regions but staffing the offices with permanent staff should wait for further considerations on their functions in the future system of fieldwork and of data dissemination to local users. (300 (?) for three months for the update, at least 100 (?) for one year for the household survey and probably 200 (?) for three months for the economic surveys. The need for permanent staff for the Fieldwork Department is acute. Total 10 university-trained staff is needed, of which one is available.

7. ARLA technical assistance: The Terms of Reference circulated by the Dutch consulting firm has attracted a number of qualified experts for the five types of missions. From the pool of candidates a fairly outstanding team of experts can be constituted. The Terms of Reference for the GIS expert missions must be changed to a more conventional cartographic expert if the Lebanese Government finally does not authorize the CAS' agreement on digitised maps with the Army. The remaining man months of the resident

long-term adviser on National Accounts should be reallocated to the expert team. International and regional organizations will be willing to fill any gaps in technical assistance if called upon to help. INSEE of France has offered assistance to the household survey (and even delivered some) and to foreign trade.

These seven points taken together constitute to the best of my knowledge a coherent logic for an eventual decision by the Lebanese Government, the CAS management and staff, the ARLA project in OMSAR and the EU Delegation as to whether to go ahead now or with the postponement of one year of 2002 as the target base year according to the strategy plan.

In *Table 2* at the end, we have summarized the statistics on staff capacity of university- and college-trained staff of CAS for statistics production according to the 1980 Decree, as of August 2001 and the needs for the strategy plan that can be satisfied by recruitments that are within the frame of the 1980 decree.

8. Options

To "go ahead" according to the November strategy modified in May because of the delays in filling vacancies at the CAS and again in August requires decisions by the government (1) to authorize the agreement between the Army and the CAS on maps, (2) to expedite the formal appointment of the 14 selected recruits for CAS in time, (3) to authorize the CAS to hire some technical staff on temporary contract as needed for the two surveys and the update of the 1996 sampling frames, (4) to plan for a gradual increase of permanent technical staff for the CAS over the coming years according to an updated 1980 decree and (5) to allow the implementation of the ARLA technical assistance plan as modified because of the resignation of the long-term adviser for National Accounts.

The decision to reschedule the update to the fall of 2002 became necessary on technical grounds when the preparations could not start because the digitised maps were not available even in July. The postponement of the update of the sampling frames alone does not endanger that target to have 2002 as the base year according to the November strategy but it will not be possible to sample effectively enough for the economic surveys to reach good quality for the 2001 National Accounts estimates from the production side. It would still be very desirable to carry out the set of economic surveys in 2002 with 2001 as reference year in order to gain experience and train the staff for the surveys in 2003 with 2002 as reference year that will be the base year. The quality of the base year estimates are very important because the base year estimates are used to control and calibrate estimates in coming years and can also be used to support estimates retroactively for years before the base year.

Of the two other data collections, the preparations for the household survey, started with technical assistance from the INSEE of France outside the ARLA program, can continue with January 1, 2002 as the target date for the start of fieldwork. INSEE has not been able to commit itself as to the amount of assistance it can provide to the household survey.

The preparations for the set of economic surveys can start in-house with CAS staff since we now have obtained Arabic language questionnaires and manuals for the whole set of economic surveys needed for modern National Accounts through regional statistical co-operation. However, the CAS needs technical assistance by an expert on business survey design and management and the operation will not yield *sustainable* staff capacity and capabilities unless more vacancies in the economic statistics department are filled

This November strategy modified in May and again now in August would still yield the planned outputs, albeit with more problems to solve in the sampling for the economic and surveys carried out in 2002

1. Much improved possibilities to compile National Accounts provisional estimates from the production side for 2001 in comparison with the situation for 1995-2000
2. For 2002 the National Accounts from the production side would be much more reliable building on the experience from the previous round. The household survey would give estimates for private consumption and thus make possible a first exercise with Supply-and-Use Table methodology for 2002 in preparation for the real thing for year 2003
3. Updated sampling frames in the beginning of 2003 available in time for the economic surveys that go into the field in the second quarter of 2003 and also available to calibrate the preliminary weights for the household and the set of economic surveys carried out in 2002

Table 2. The staff capacity of university- and college-trained staff of CAS for statistics production according to the 1980 Decree and as of August 2001.

Positions	In the 1980 Decree	Vacant	Filled permanently	Filled by contract	New recruits	Additional for strategy
Economic Statistics Department :						
Statistician Department Director	1	1				
Statisticians	7	6	1			
Specialists in economics	2		1	1		7
Specialists in business administration	1	1			1	
Specialists in mathematical statistics	2	1		1	1	
Assistant statisticians	14	13	1			
Totals	27	22	3	2	2	7
Social Statistics Department:						
Statistician Department Director	1	1				
Statisticians	6	6				
Specialists in economics	1		1			1
Specialists in social sciences	4	2	2			1
Specialists in mathematical statistics	2	2			1	
Assistant statisticians	12	10	2			
Totals	26	21	5		1	2
Coordination and National Accounts Department:						
Statistician Department Director	1	1				
Statisticians	4	3	1			
Specialists in economics	4	1	2	1		3
Specialists in business administration	1		1			
Specialists in mathematical statistics	3	3			(2)	
Assistant statisticians	8	6	2			
Totals	21	14	6	1	(2)	3
<i>Totals for subject matter departments</i>	74	57	14	3	5	12
Fieldwork Department:						
Statistician Department Director	1	1				1
Statisticians	5	4	1			4
Assistant statisticians	6	6				6
Totals	12	11	1			11
Computer Department:						
Statistician Department Head	1	1				1
Statistician	1		1			
Analysts	3	3			2	1
Programmers	8	8			4	4
Totals	13	12	1		6	6
<i>Total university- or college-trained</i>	99	80	16	3	11	29

