



Forwarding Armenian Statistics Through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

on

AGRICULTURAL CENSUS

ACTIVITY D.2 PLAN AND REPORTING FORM FOR THE AGRICULTURAL CENSUS

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National Statistical Service
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List of Abbreviations

AC	Agricultural Census
AMD	Armenian dram
EU	European Union
FSS	Farm Structure Survey in the EU member states
MoA	Ministry of Agriculture of Republic of Armenia
NSSRA	National Statistical Service of the Republic of Armenia
PC	Population Census
USDA	United States Department of Agriculture
USD	US Dollar

Executive Summary

The preparation for the AC is strongly linked to the activities concerning the PC. The report from the PC pilot survey is not yet available but the PC questionnaire is accepted by the Government, which secures a session of agricultural questions in the PC. For budget issues a final decision is expected for mid June. For the further work in component D it is important to, among others, study the report from the Pilot PC survey and use this experience for the AC where it is relevant, study the tables that will be produced from the Pilot PC survey and find out if they can be used for some tests, for example concerning thresholds in the AC, and to study the 66 instructions for the PC and see which can be transferred to the AC.

The most important concepts and definitions in the AC as those of *farm*, *farmer* and *location of farm* need to be clearly expressed and instructions/examples on specific cases are needed for the interviewers and farmers to fully understand how to handle (and answer) these.

The question of setting special thresholds is important when deciding the population of the AC. The way to construct thresholds in corresponding EU surveys was shown as an example.

The AC questionnaire is almost finalised. Still to be elaborated are the instructions/comments to each section that are needed to secure the quality of the responses.

Questions related to promotion of the AC (public information), staff recruitment, training, data collection, data entry, checking routines and tabulation, and dissemination of results were mainly left for coming discussions. Experiences from the PC pilot survey and the planning of the PC need to be studied.

During the next mission all the above mentioned issues will be further discussed and also the implementation of the logistics for the AC will be covered.

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1. General comments

This mission report was prepared within the National Statistical Service of the Republic of Armenia (NSSRA). It was the second activity within Component D of the Twinning project, Development of methodology and preparation of Census of Agriculture.

The objectives for the mission were:

- To review all steps in the agricultural census, e.g.:
 - the reporting forms to be used for the agricultural census,
 - the survey techniques, and the implied statistical methods,
 - the correspondence with existing EU regulations with special focus on the important concepts and definitions, such as the unit to be surveyed, and the possible thresholds to be used when defining the population;
- To discuss the planning of the implementation of the agricultural census with respect to data collection and budgeting;
- To discuss and start analysing the results of the agricultural questions included in the pilot study on the Population Census (PC).

The MS Experts would like to express their thanks to all officials and individuals met for the kind support and valuable information they received during the stay in Armenia which highly facilitated their work.

The views and observations stated in this report are those of the MS Experts and do not necessarily correspond to the views of Statistics Denmark or Statistics Sweden.

2. Assessment and results

2.1 Issues concerning the Population Census (PC) 2011 with connections to the Agricultural Census (AC)

The PC questionnaire is now accepted by the Government, implying that the proposed questions related to agriculture will be included. A report of the experiences from the PC pilot survey is elaborated.

A final confirmation concerning the budget for the PC is expected the mid June 2011.

The plan is at present to place the agricultural section of questions as the second last section of the PC questionnaire. This is an acceptable approach from agricultural statistics point of view, because the two previous sections of the questionnaire are dealing with strictly person and household questions that are typical for a PC. The experts note that to have one last section of questions after the agricultural section reduces the risk for weak quality of the answers to the questions related agriculture.

USDA is at present creating tabulation programs for the PC data processing. PC pilot data will be provided to USDA in late May, after which tables will be produced. These tables will probably be useful for testing purposes in the planning process of the AC.

For the operational planning of the AC it is important to consider the experience, at a general and a specific level, from the PC in order to transfer this experience to the AC planning. A basic issue is to find out whether the concept *household* in the PC corresponds to *agricultural household* in the situation where agricultural activities are reported in the PC. The MS Experts had the possibility to study the definition of household in the PC and the questionnaire for the pilot PC. The definition of household is not very precise. However, in most cases it can probably be reasonable to assume that a household that reports agricultural activities can be considered an agricultural household in the AC.

The MS Experts were informed that 46 out of 66 “instructions” (definitions, actions, etc.) necessary for the implementation of the PC were finalised by NSSRA by the end of May 2011. Further studies of those “instructions” are planned for the next mission as they may be very relevant also for the AC.

2.2 Concepts and definitions in the Agricultural Census

2.2.1 General aspects

It is important to have clear definitions of some basic concepts that will be used in the AC. The definitions can often be expressed in a few words but explanatory notes commenting on specific situations are normally needed. The definitions and the additional information will preferably be included in the manual/instructions for the interviewers.

2.2.2 Holding/Farm

According to the EU-regulation 1166/2008 a farm is defined as *a unit producing agricultural products, either crops or livestock*. The regulation contains a long list of crops and animals

which a farm structure survey (FSS) has to cover. Generally, the list is in accordance with a normal understanding of agricultural activities.

It means that farms with for example cereals, pulses, root crops, fruits, berries and animal fodder crops should be covered as well as livestock farms with cattle, pigs, sheep, goats, horses and poultry.

Some cases often give rise to discussion or misunderstanding. It could be mentioned that these activities not have to be covered in the FSS, however, any EU country is free to cover these aspects in the FSS for national reasons:

- Fur animals
- Forestry
- Aquaculture
- Agricultural services

Among cases which in principal have to be covered the following items could be mentioned bee hives, rabbits, and Christmas trees. However, the cases could be left out of the questionnaire if the item in question is not relevant for the country. If there, on the other hand are other marginal examples that are relevant for the country and not mentioned in the EU regulation, these should be included in the questionnaire.

It is not of importance whether a farm produces for the market or not. The question of survey thresholds will be dealt with in section 2.3 but here it should just be emphasized that a farm with for example cows should be included in the FSS whether the milk is sold to the dairy or consumed by the farmer's family.

Likewise farms should be covered by the FSS whether the land is owned or leased, and also if the land is partly owned and partly leased. When surveying the farms it is of crucial importance that the interviewer underlines that areas in tenancy should be included by the tenant and not by the owner. It should thus be avoided that land is double counted or is not counted at all.

If a farmer owns land in *Region 1* but also leases some land in *Region 2* all the land should in the regional statistics normally be referred to *Region 1*. The question is dealt with in section 2.2.3. Here it should be underlined that in the published farm structure statistics - where the farm is the survey unit - 100.000 hectares with wheat in *Region 1* means that farms in *Region 1* cultivates 100.000 hectares with wheat even if a smaller or larger fraction of the wheat area is physically located in other regions.

The users of the statistics should be informed about the logics of the FSS.

Normally the statistical definition of a farm does not conflict with the intuitive understanding: One man owns some land and cultivates the crops and has some animals, for instance cattle and pigs. He runs the farm with the help of his family and might also have one or more non family workers if the farm is big. It means that in most cases there can be no doubt about the statistical unit. The following list concerns special cases:

- *Two farmers have a close co-operation.* There is no exact rule as to when the co-operation is so close that the case in fact should be considered as one farm. For big farms a criterion could be common book keeping but it would hardly make much sense for most farms in Armenia as they are often rather small and do not have a formal book

- keeping system. It is however, of importance that the interviewers are aware of the problem, and they are provided at least with some guidelines.
- *Collective and state farms* should be included in the FSS. These farms do not exist anymore in Armenia and are thereby not an issue.
 - *Farms with livestock but no land* should also be included. They might have bought or leased a pig or cattle stable from another farm so that the land and the livestock of what used to be one farm unit now are two farms.
 - *Agro scientific research farms* are also farms. They have most often land and livestock which easily can be recorded in the questionnaire. The labour force questions of the AC are more difficult because most of the staff is not traditional agricultural workers.
 - *Common land farms* are special farms which hardly can be seen as real farms. The problem concerns cases where livestock farms in a village have access to an area with common grass land. The land cannot be attributed to any specific farm; one farmer cannot know how big an area he uses of the common land. NSSRA are perfectly aware of the problem and in the opinion of the MS Experts their solution is good: The local administration has to report the common land to the statistical office so that such land is included in the total agricultural area.
 - *Other special cases* are agricultural land owned by religious societies, prisons, hospitals, homes for disabled persons, schools and military barracks. Such farms should also be included in the FSS but again, also for such farms, the labour force questions of the AC might be a bit difficult.

It is expected that the population census 2011 (PC) will define most of the units to the AC. Most agricultural activities in Armenia take place among private households which own some land or have some animals. It has been discussed with the agricultural statistics experts of NSSRA whether one household with agriculture always corresponds to one farm. What if two farmers share the same address but have their own farms independently of each other? Or what if the opposite situation occurs where a farmer and his companion live at different addresses? NSSRA should be ready to handle such unit problems, and it is recommended by the MS Experts that clear decision rules are worked out by NSSRA for the interviewer instructions.

2.2.3 Location of holding/farm

Regional statistics about agriculture are most often of great interest among the users. Very often the users demand even very detailed statistics with figures at municipality level. Thereby every farm should have a municipality code recorded in the survey register.

Normally it is pretty easy to determine the municipality code of the farm. It is simply where the farm is located. But there might be situations where there could be doubt. If a farm has land in more than one municipality it should have the municipality code where the farmer has his house. If the farmer lives somewhere else, the municipality code should be where the farm has its' biggest area. It should be noticed that the farmer's private address might differ from the address of the farm, and thus the municipality code might also differ.

2.2.4 Holder/Farmer

At a farm structure survey in accordance with the EU standard the following person should report their working time:

- The farmer (holder)
- The manager (if there is no personal holder or if the holder does not work at the farm)
- The spouse of the farmer
- Family workers
- Non family workers

It is thus of importance to decide *who is the farmer*, and who should be recorded somewhere else. The farmer is, at a traditional farm, most often the person who owns the land and runs the farm, very often together with his family.

In the following are listed the cases where doubt may arise:

- Man-wife farms: Here the farmer should be the spouse with the biggest responsibility. If the children take part in the work of the farm it could occur that for example the oldest son might be the best choice as the farmer, especially if the parents are not quite young anymore.
- Farms run by two or more partners: As above, the partner with the biggest responsibility should be chosen as the farmer.
- The owner/tenant of the land does not work at the farm: in these cases a manager should be chosen who is hired to take care of the leading of the farm. Such a case is very rare.
- The farmer is not a natural person: This is the case for farms owned by government institutions and farms run by companies. For such farms one person should be selected as the manager.

If it is difficult to determine who has the biggest responsibility at a farm other criteria might be used, for instance to choose the oldest person working at the farm.

2.3 Thresholds, defining the population of the AC

In the farm structure statistics it very common to exclude the smallest farms as long they do not contribute very much to the agricultural land and the livestock. Also, the EU regulation deals with so-called thresholds which means that EU countries are allowed to exclude very small farms from the census. The rules can be a bit tricky:

A country should include either:

- 1) All farms which have at least 1.0 hectare of agricultural land.

or

- 2) If another threshold is selected – say 3.0 hectares – at least 98 percent of the total area and at least 98 per cent of the total livestock (livestock units) should be covered.
- 3) Irrespective of 1) and 2) all farms which fulfil just one of the following criteria should be included:
 - a) At least 5.0 hectares of agricultural land
 - b) At least 1.0 hectares with vegetables, fruits and berries
 - c) At least 10 cattle
 - d) At least 20 sheep
 - e) At least 20 goats

- f) At least 50 pigs
- g) At least 20 sows
- h) At least 1,000 poultry

So it should be noticed that there never can be any freedom from including farms which fulfil just one single of the criteria a-h.

It is the view of the MS Experts that for the Armenian AC it would definitely be necessary to choose more strict rules so that more small farms are included in order to fulfil national needs for adequate statistics. The discussion with NSSRA colleagues led to the following rough example as how to construct the threshold:

- i) At least 0.5 hectares of agricultural land
- j) At least 0.05 hectares with vegetables, fruits and berries
- k) At least 3 cattle
- l) At least 5 sheep
- m) At least 5 goats
- n) At least 5 pigs
- o) At least 1 sow
- p) At least 100 poultry

To set a threshold is in some way to find a balance between the statistical needs and the cost of the statistical production. For the coming AC, the agricultural information from the PC will provide an excellent base to calculate the effects of using specific constructed thresholds, based on the area of crops and the number of livestock. There might be a number of scenarios that can be tested, from using no thresholds at all till not surveying i.e. the 100,000 units in the urban areas.

It is the viewpoint of the MS Experts that the situation is favourable because even if a certain number of units are excluded from the AC (a threshold is defined), basic agricultural information is received in the PC. This implies that these units can be included in sample surveys concerning special topics and can also be stored in a coming statistical farm register.

2.4 Questionnaire design and instructions

NSSRA put forward the draft questionnaire for the AC elaborated in the cooperation with USDA. It is a questionnaire of 7 pages with questions on crops, livestock, machinery and labour force. It is rather close to the EU standard of a questionnaire as it is described in Regulation 1166/2008.

The MS Experts had the following remarks:

- 1) On page 2, section II, the farmer is asked to give a distribution of its agricultural land by owned area, area in tenancy and leased out area. This is quite normal but the farmer also has to give this information by 7 main categories of crops. This information seems to be an unnecessary complication so it suggested just to have a section like this:

Owned land + land in tenancy - leased out land = Total land of farm

The total land should afterwards be distributed by crops. The list of crops seems to be almost exhaustive but two categories “unused land” and “other crop” should be added.

- 2) The area of each crop must also be distributed by irrigable area and actually irrigated area. It could be simplified a bit. The consultants had two ideas:
 - a) Just two figures: Irrigable area and actually irrigated area in the recent season.
 - b) Irrigable area and a distribution of the irrigated area by a simplified set of crops.
 Solution b) is the EU standard but also a) is quite satisfactory.
- 3) On page 4 there are a few questions on use of fertilizers and use of pesticides. The MS Experts warned about that such questions often are pretty difficult to answer. The situation might not be too critical, though, since the questions concern hectares of fertilized/sprayed land and not quantities used.
- 4) The section on page 5, section VII on machinery was discussed. The questions on tractors distributed by horsepower make good sense (even if that demand is deleted in the EU regulation), at least for the first Armenian census. It could be considered also to add questions on the use of machines for farms which do not own machines themselves.
- 5) The section with labour force questions is on page 6, section IX. AC questions on labour force traditionally are difficult. It could be considered that the work time should be indicated by hours per week and not hours per year. Armenia, however, is here in line with the Swedish questionnaire but not with the Danish. If simplification is needed an option could be to skip the distribution of the agricultural workers by men and women. NSSRA at present prefers to keep the distribution by gender. The initial question, whether working hours spent for plant growing or cattle breeding represent at least 2/3 of the total working time might be constructed as a Yes/No question for better clarification.

The fact that the census is going to be made by means of personal interviews is an advantage when compared to a postal survey. It means that a competent interviewer can avoid that the farmer misunderstands some questions. On the other hand personal interviews require interviewer's instructions of a high quality.

2.5 Further steps in the planning of the Agricultural Census

Only short time was dedicated to activities concerning

- Promotion of the AC
- Staff recruitment, training
- Data collection
- Data entry, checking routines
- Tabulation, dissemination of results

The reason for this was partly the need to prioritise between the issues and partly that more efficient review of the above five mentioned topics will be possible when the report from the PC pilot study is available. The before mentioned 66 instructions for the PC will also be valuable information for the purpose. The aim is that a number of routines from the PC more or less will be possible to copy for the AC.

Post census activities were shortly discussed. One topic of interest could be to compare cadastre land data with land data from the AC. Another topic could be to compare the community books with the AC concerning crops and livestock information.

2.6 Budget issues

Budget principles for calculating the costs for the AC were discussed. At this stage it is not possible to calculate the total costs for the AC. These will depend on the surveyed population, the possibilities to reuse PC experiences of various kinds etc. In Annex D2.4 is found a first outline of a budget with a division of costs between fixed costs and variable costs related to different number of surveyed units.

2.7 Time plan for implementation of the AC and for coming Twinning Activities

A tentative time plan for the AC was prepared by the consultants. The plan is done with a number of assumptions, i.e. the PC will be conducted and finalised according to plan, the financing of the AC will be secured in due time and most infrastructure for the AC can be reused from the PC. More details are found in Annex D2.5, which also includes a plan for the coming Twinning Activities in the component D.

It can also be mentioned that the MoA has sent a letter (prepared by NSSRA) to FAO stressing the importance of an AC in Armenia and asking for budget support. The letter is found in Annex D2.6.

2.8 Meeting with the Ministry of Agriculture of RA

The MS Experts were invited to participate in a meeting between NSSRA and the MoA concerning the use of administrative data for statistics, the role for the NSSRA and the MoA when collecting agricultural data from the communities etc. The MS Experts had the opportunity to give a short presentation of the policy for EU statistical work (Code of Practice) and how to deal with administrative data in statistics. The presentation is found in annex D2.7.

3. Conclusions and recommendations

3.1 The Population Census

The preparation for the AC is strongly linked to the activities concerning the PC. The report from the PC pilot survey is not yet available but the questionnaire is accepted by the Government, which secure a session of agricultural questions in the PC. For budget issues a decision is planned for mid June.

For the work in component D it is important to

- Take note of the outcome of the budget decision for the PC and assess how it will influence the planning of the AC.
- Study the report from the Pilot PC survey and use the experience for the AC were it is relevant.
- Study the tables that will be produced from the Pilot PC survey and find out if they can be used for some tests i.e. of thresholds in the AC.
- Study the 66 instructions for the PC and see which can be transferred to the AC.

3.2 Concepts and definitions

It is important in the Armenian AC to define the most important concepts like farm, farmer and location of farm. The MS Experts provided information on the corresponding definitions in EU from the EU regulation 1166/2008. The MS Experts also stressed the need for instructions/examples of specific cases connected to the definitions in order to clarify how the definitions should be understood for the interviewer and the farmer.

3.3 Thresholds

The MS Experts informed about the threshold used in the EU member states. For Armenia it will be possible to construct physical thresholds (using crop areas and number of livestock) in a similar way. These thresholds will probably be lower because of the structure of the Armenian agriculture with many small farms. The fact that basic agricultural information will be collected in the PC might also influence the decision about thresholds. The need for statistics must also be clearly expressed from the main users, but as usual the needs must also be realistic compared to financial resources. This issue need further consideration and some tests are recommended by using results from the PC pilot survey.

3.4 The questionnaire design and instructions

The questionnaire is almost finalised. The consultants only recommended a small number of possible improvements. Instead it is important to construct comments/instructions to the different sections for improving the quality of the answers. The corresponding EU manual can be a useful document in this work.

3.5 Other issues

Questions related to promotion of the AC, staff recruitment, training, data collection, data entry, checking routines and tabulation, dissemination of results were mainly left for coming discussions. Experiences from the PC pilot survey and the planning of the PC need to be studied.

4. Actions before next activity (D.3)

The next mission in this component connected to activity D.3 will to some degree be a continuation of the work in the activity D.2 but according to the program also deal with implementation of the logistics for the AC. The MoA and relevant associations of farmers should be consulted. The following work would be useful before next mission:

- Translation of the PC pilot survey report to English
- Listing in English at least the headings of the 66 instructions for the PC (later some of them that are assessed useful for the AC need full translation)
- Translation of tables from the PC pilot survey to English
- NSSRA provides draft ideas of definitions and linked comments to them
- NSSRA provides draft comments/instructions to the different sections of the AC questionnaire
- NSSRA provides preliminary strategy for setting thresholds in the AC

Annex 1. Terms of Reference

Component A	Quality Management
Component B	Business Register, Structural Business Survey, and Respondent Burden
Component C	Improvement of the Exhaustiveness of GDP
Component D	<i>Agricultural Census</i>
Component E	Harmonized Consumer Price Index
Component F	ICT Society

Activity D.2 Plan and reporting form for the Agricultural Census

1. Purpose of activity

The purposes of the activity are:

- To review all steps in the agricultural census, e.g.:
 - the reporting forms to be used for the agricultural census,
 - the survey techniques, and the implied statistical methods,
 - the correspondence with existing EU regulations with special focus on the important concepts and definitions, such as the unit to be counted, and the possible thresholds to be used when defining the population;
- To discuss the planning of the implementation of the agricultural census with respect to data collection and budgeting;
- To discuss and start analysing the results of the agricultural questions included in the pilot study on the Population Census (PC)

2. Expected output of the activity

The expected outputs of the activity are:

- A work plan for the agricultural census including:
 - The draft questionnaire(s) to be used for the census; the preferred survey technique, e.g. cut-off method, stratified sample, a combination hereof, or a total survey, a communication strategy, a draft budget for the main budget lines;
- A lining up of work programme for the next activity (D.3);
- To decide upon the preferred timing of the next activity (D.3);

3. Project Participants

Mr. Gagik Ananyan, Member of State Council on Statistics (*BC Component Leader*)

Mr. Arsen Avagyan, Head of Agriculture Statistics Division

Ms. Laura Grigoryan, Main Specialist of Agriculture Statistics Division

Ms. Rouzanna Vardanyan, Main Specialist of Agriculture Statistics Division

Mr. Vardan Arevshatyan, Leading Specialist of Agriculture Statistics Division

Mr. Rolf Selander, Senior Adviser, Statistics Sweden (*MS Component Leader*)

Mr. Karsten Larsen, Head of Section, Agricultural Statistics Division, Statistics Denmark

External Stakeholders taking part in the activity

a. Ministry of Agriculture of RA

Annex 2. Meeting Programme for MS Experts

23 May (Monday) – 27 May (Friday)

Time	Place	Event	Purpose / Detail of event
Monday, morning	Congress Hotel	Meeting with RTA	Discussion of the programme of the week
Monday, afternoon	NSSRA	Meeting with BC Component Leader	Updating of the MS experts on the current status on the planning of the Agricultural Census and the status of the Population Census (PC)
Tuesday	NSSRA	MS Experts presentation - discussion	The EU Regulation on AC - discussion of <ul style="list-style-type: none"> • Statistical unit • Questionnaire • Implications for AC in Armenia
Wednesday, morning	NSSRA	Round table discussion	Discussion of the possible scenarios for the Agricultural Census: <ul style="list-style-type: none"> • Survey technique • Cut-off/threshold • Financing
Wednesday, afternoon	NSSRA	Ad-hoc meetings with BC Experts	Further work on the existing drafts of the questionnaire to the AC.
Thursday, morning	NSSRA	Meeting with BC Component Leader	Discussion of the budget of the AC. Discussion of a communication strategy concerning the AC.
Thursday, afternoon	NSSRA	Ad-hoc meetings with BC Experts	Work on road map(s) concerning the AC
Friday, morning	Ministry of Agr.	NSSRA meeting with Minister of Agr. & staff of MoA	To discuss a future Armenian system of administrative agricultural registers – presentation of Code of Practice in relation to administrative registers
Friday, afternoon	NSSRA	Debriefing with BC Project Leader	Presentation of the results of the activity (mission) and the implications for the next activity (mission) as well as the work programme in between.

Annex 3. Persons met

Mr. Stepan Mnatsakanyan, President of NSSRA

Mr. Gagik Ananyan, Member of State Council on Statistics (BC Component Leader)

Mr. Arsen Avagyan, Head of Agriculture Statistics Division

Ms. Anahit Safyan, Head of International Statistical Cooperation Division

Ms. Karine Kuyumjyan, Head of Population Census and Demography Division

Ms. Laura Grigoryan, Main Specialist of Agriculture Statistics Division

Ms. Rouzanna Vardanyan, Main Specialist of Agriculture Statistics Division

Mr. Vardan Arevshatyan, Leading Specialist of Agriculture Statistics Division

Mr. Vahe Chagharyan, First Class Specialist of Agriculture Statistics Division

Mr. Sergo Karapetyan, Minister of Agriculture of RA

Deputy Ministers of Agriculture and other senior officers from MoA

Annex D2.4 Budget principles for the AC - different scenarios

This budget must in no way be considered as precise, but should rather be seen as indicative as it outlays the basic principles that could be applied when working with the budget. This, in particular, is relevant for the estimated money costs for salaries for data collectors.

Fixed and variable costs

Fixed costs relate to budget items where total costs will be (more or less) the same in all scenarios. Variable costs relate to budget items where total costs vary directly with the necessary input.

Budget assumptions

IT infrastructure

the main IT infrastructure from the PC can be utilized, only relatively small extra costs
computers from the PC are available
development of software and databases can be based on the experience from the PC

Interview leaders

each interview leader will be employed for three months
one interview leader is required for each 25 data collectors
the monthly salary (all included) is 300 USD /210 EUR / 112,000 AMD

Interviewers

data collection of AC will be carried through during a 6 weeks period
each interviewer will be employed for two months:
one interviewer can conduct 6 interviews per day
instruction (education) of interviewers lasts for 2 weeks
the monthly salary (all included) is 200 USD /140 EUR / 75,000 AMD

Entry of data

one staff member can input (enter) data with a speed of 40 questionnaires per day
the monthly salary (all included) is 200 USD /140 EUR / 75,000 AMD

Further processing of data

the further data processing will require two extra full time employees for one year
this number may be imprecise, but is not dependant of the chosen scenario

The population of the AC as derived from the PC consists of

340,000 agricultural households in villages
60,000 summer houses
100,000 urban households with agricultural production

Printed materials

The average price of one questionnaire is 0.50 USD.

From these assumptions, the total costs as measured in USD of the AC can be roughly estimated according to different scenarios. In the table below, three different scenarios with varying coverage are cost analysed according to the assumptions made.

Examples of total costs of the AC under different scenarios with varying coverage (USD)

	Scenario 1	Scenario 2	Scenario 3
Agricultural households in villages	100 pct.	100 pct.	100 pct.
Summer houses	100 pct.	50 pct.	10 pct.
Urban households with agr. prod.	100 pct.	10 pct.	0 pct.
<i>Total number of interviews</i>	<i>500,000</i>	<i>380,000</i>	<i>346,000</i>
<i>Variable costs (USD)</i>			
Data collection, total costs (USD)	1,053,333	800,533	728,907
Data processing (data entry)	125,000	95,000	86,500
Printed materials (questionnaires)	250,000	190,000	173,000
<i>Fixed costs (USD)</i>			
IT	200,000	200,000	200,000
Data treatment, salaries	10,000	10,000	10,000
PR	100,000	100,000	100,000
Rental of office facilities	25,000	25,000	25,000
Vehicles and energy	100,000	100,000	100,000
Other fixed costs	300,000	300,000	300,000
Total costs	2,163,333	1,820,533	1,723,407

It must be stressed that the presented budget is made by the MS Experts and based on a relatively low level of knowledge of the expenses etc. made not only in the assumptions but also related to most the fixed cost component. Moreover, the financing of a pilot AC has not been taken into account when putting the principal budget together.

Annex D2.5 A draft roadmap / time plan for the AC

Premises:

- The Population Census (PC) is, as planned, implemented 12-21 October 2011
- The PC data entry and validation of data is, as planned, finished by 30 June 2012
- The financing of a pilot Agricultural Census (AC) secured by 30 June 2012
- The financing of the AC secured by 1 February 2013
- Infrastructure (computer hardware and staff recruitment) from PC can, at least to a high degree, be re-used

Milestone / Activity (see footnote)	Deadline	Twinning Activity
Development of strategy (1)	March 2011, May 2012	D.1, D.2
Development and adoption of questionnaire (5)	May 2011, Oct. 2011	D.2, D.3
Development of interviewer instructions (5)	Oct. 2011, March 2012	D.3, D.5
Census logistics and organisation (7)	Oct. 2011, March 2012	D.3, D.5 (training)
Development of PR campaign (8)	March 2013	D.5 (training)
<i>Recruitment and staff instruction for Pilot AC</i>	<i>March-Apr. 2012</i>	
Organisation of AC (11, 13)	May 2012	D.4 (study visit)
<i>AC pilot census data collection (13)</i>	<i>May 2012</i>	
Definition of AC population	Sept.-Nov. 2012	D.6
Evaluation of results from AC pilot census (14)	Sept.-Nov. 2012	D.6
Adjustments of questionnaire and instructions	Dec. 2012 - Jan. 2013	
Recruitment and staff instruction for AC (17-18)	Feb.-Apr. 2013	
<i>AC data collection (19)</i>	<i>Apr-May 2013 (6 weeks)</i>	
Data entry, validation of data etc. (20-26)	Nov. 2013	
Preliminary results (27)	Feb. 2014	
Final results and dissemination (30)	May 2014	

Numbers referring to Annex D1.7b (list of activities produced by NSSRA/USDA)

Planning of coming Twinning Activities:

D.3	October 2011	Implementation assistance
D.5	March 2012	Training (regional aspects)
D.4	May 2012	Study visit to Statistics Denmark
D.6	November 2012	Review of the implementation of the Twinning Component