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Technical session 2

Operationalisation of the Modular Approach and Integration of Census and Surveys

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1. Background

The 2010 round of agricultural censuses has been developed after a review of country experiences with the previous programme. Many countries are concerned about the costs of agricultural censuses, as well as the demands made on technical and other resources. Countries are finding it difficult to meet the increasing demand for often complex data on current issues, such as food security, agricultural practices, and the environment. Greater use is being made of sampling methods in agricultural censuses. Countries would also like to link agricultural and population census data.

The need to better integrate the agricultural census into the ongoing system of agricultural statistics, in particular, and in the entire national system of collection of statistics in general, is also of a concern to many countries. Needless to say that the integration with the statistical system provides a cost effective solution to data providers in meeting diverse data demands but also facilitates multi-dimensional analysis of data which would not be possible in a fragmented system of surveys. The integration while providing the flexibility to plan and implement the agricultural surveys by different agencies according to their specific needs, also avoids duplication in data collection efforts at country level. Modular Approach to planning of census and surveys is a method to prepare an integrated plan of data collection.

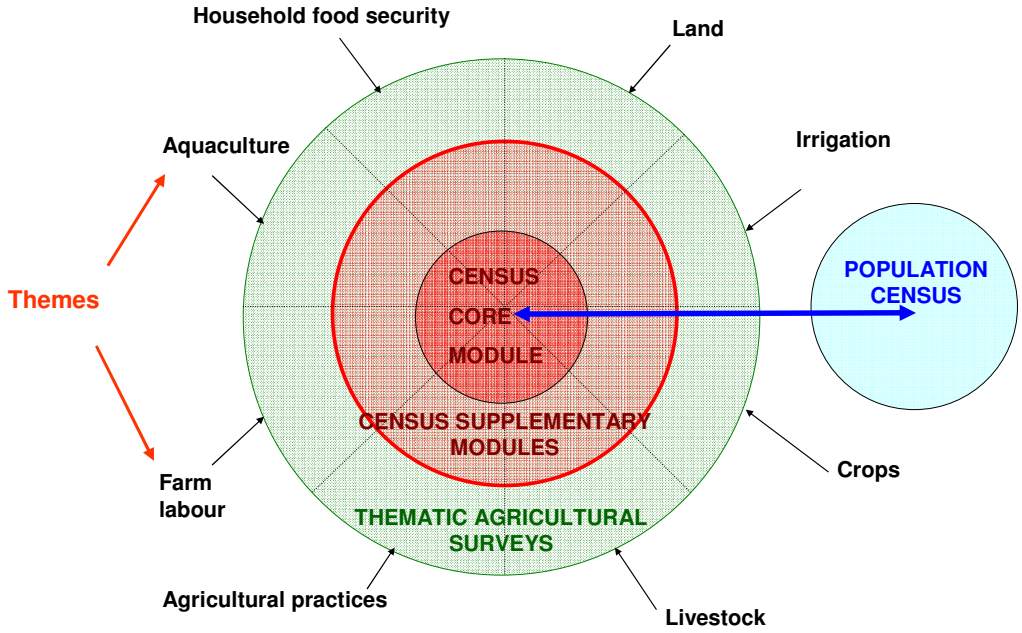
2. The framework of an integrated agricultural census – survey programme

The new programme provides for agricultural censuses to be conducted as the central component of the system of agricultural sample surveys. Under this scenario, the agricultural census-survey programme can be viewed as having two related components: (i) the *agricultural census*; and (ii) the series of agricultural sample surveys based on the agricultural census, called the *thematic agricultural surveys*. Each country is encouraged to develop its agricultural census within the overall framework of the system of agricultural surveys, and to plan the thematic agricultural surveys as a part of the agricultural census planning.

The thematic agricultural surveys will be based on sampling frames obtained from the agricultural census. These surveys will provide more detailed data for agricultural census topics, such as crops and agricultural practices. They will also include new topics, such as time use and cost of production, as well as ongoing agricultural surveys such as crop and livestock production.

A schematic representation of agricultural censuses in the framework of an integrated agricultural census/survey programme is shown in Figure 1. It shows items under selected headings, such as land, irrigation, etc., according to their suitability for inclusion in the census core module, in a census supplementary module, or in a thematic agricultural survey.

Figure 1: Agricultural censuses in the framework of an integrated agricultural census/survey programme



3. Wider scope of agricultural census

As in the past, the 2010 round of agricultural censuses focuses on the collection of structural data on agriculture from agricultural holdings. However, two options to widen the scope of the agricultural census are provided:

(i) In traditional agricultural censuses, units engaged in aquaculture production are included only if they also have some crop and livestock production activities. In view of the growing importance of aquaculture in many countries, the option is provided to cover all aquaculture production units.

(ii) Some countries may wish to expand their agricultural censuses to collect socio-economic data about other rural households that are not agricultural holdings, such as those containing farm labourers.

4. Modular approach

A modular approach is proposed to be used for agricultural censuses in the 2010 programme. A *core census module*, to be conducted on a complete enumeration or large sample basis, will provide a limited range of key data. One or more *census supplementary modules* will be conducted on a sample basis, using the core census module as a frame, to provide more in-depth data. This is essentially the short/long questionnaire approach already used by some countries.

A list of 16 items has been identified as being suitable for inclusion in the core census module. These items have been selected on the basis of: (i) their importance for national policy-making

and for making inter-country comparisons; (ii) the need to establish sampling frames; and (iii) the importance of providing data at low-level administrative units. The 16 items are:

- identification and location of holding
- legal status of agricultural holder
- sex of holder
- age of holder
- household size
- main purpose of production of the holding
- area of holding according to land use types
- total area of holding
- land tenure types on the holding
- presence of irrigation on the holding
- presence of temporary crops by type on the holding
- presence of permanent crops by type and whether in compact plantation
- number of animals on the holding by each livestock type
- presence of aquaculture on the holding
- presence of forest trees and other wooded land on the holding
- other economic production activities on the holding's enterprise.

Further 87 items have been identified as suitable for enumeration by sample methods in the census supplementary modules. These items may be as important as the 16 recommended core items, but do not need to be collected on a complete enumeration basis because they are not needed for sampling frame purposes or because data are not required for low-level administrative units. These 87 items are classified under 12 headings, representing possible topics for census supplementary modules:

- land
- irrigation and water management
- crops
- livestock
- agricultural practices
- agricultural services
- demographic and social characteristics
- economic activity of household members
- household food security
- aquaculture
- forestry
- management of the holding

Under each of these themes it is possible to imagine a hierarchy of data items (questions), depending on details. For example, consider the data items on Livestock.

For the holding

0013 Number of animal (of each species) on the holding
0401 Type of livestock production system
0402+ Use of veterinary services

For each livestock type

0411 Number of animals: age, sex and breed
0412 Number of animals according to purpose
0413+ Number of milking animals according to milk status
0414+ Number of animals born
0415+ Number of animals acquired
0416+ Number of animals slaughtered
0417+ Number of animals disposed of
0418+ Number of animals died from natural causes
0419+ Types of feed
0420+ Value of livestock production
042A Production of meat by each livestock type
042B Value of sales of livestock products

One would note that these items are arranged in increasing order of details on livestock theme. The choice of segregating these data items in the census and surveys will depend upon the country situation. However, in most countries, it would be appropriate ask questions relating to births, deaths, acquisition, disposal and meat production of livestock in a specialized sample surveys rather than an agricultural census. Such a survey will be needed to provide production in the livestock sector as well as for preparing inter-censual estimates of livestock census population. The table below exemplifies the treatment of livestock related information in census and/or surveys.

Type of information	**Questions/ data items**	**Type of survey**	**Periodicity/ sampling fraction**
List of holdings by livestock types, livestock population by small administrative unit	Is the holding engaged in livestock production? If so, number of animals	Population census or agriculture census	decadal, complete enumeration
Livestock system	Rearing system, feed system, use of vet services	Agricultural census/ Livestock survey	decadal / 5 yearly, sample
Livestock production	Livestock death, birth, acquisition, slaughter, milk status	Special livestock Survey	Annual/ sufficiently large sample
Livestock production per animal	yields of milk, meat, honey	Yield survey	5 yearly, Thin sample

The modular approach can also be illustrated using the example of aquaculture. One aquaculture item i.e. presence of aquaculture, is recommended for inclusion in the core census module to provide data on the number of holdings with aquaculture and to help establish a sampling frame. The following five items are recommended for enumeration by sampling methods.

- area of aquaculture by type of site
- area of aquaculture by type of production facility
- area of aquaculture by type of water
- sources of water for aquaculture
- type of aquaculture organism cultivated

In countries where there is a high incidence of aquaculture activity on agricultural holdings, it may be good to attach a special module to agricultural census and use a long-short questionnaire approach. In some other countries, it may be suitable to carryout a separate survey on aquaculture based upon the sampling frame provided by agricultural census.

The number of items in the 2010 round of agricultural censuses is larger than in previous programmes but a majority of these are optional for the agricultural census and are more suitable for thematic surveys based on the agricultural census. In developing their core census modules, countries will be encouraged to include all 16 recommended core items, plus other items required to meet national data needs or to help establish sampling frames. For example, an item on fertilizer use might be included in the core census module for sampling frame purposes if an agricultural inputs supplementary module will be required. Normally, the core census module should cover fewer items than in agricultural censuses in the past.

A country is not expected to collect all the recommended supplementary items; Instead it should select topics for supplementary modules according to national policy priorities and data needs. It is expected that countries will carry out one or two census supplementary modules in association with the core census module. Usually, a supplementary module will include data from several headings. For example, a household food security module could include data from the land, crops, and agricultural practices categories, as well as household food security items. Such surveys could be country-wide or be confined to a specific area (e.g. province) where the characteristic under study is predominant. These surveys could be implemented by the Census agency or could be carried by any other agency with a technical contribution from the Census agency.

The dividing line between the census supplementary modules and the follow-up thematic surveys is in general thin. Decision regarding inclusion of item in the census supplementary module or follow-up survey will be taken considering:

(1) the level of precision needed in the estimates
(2) the lowest administrative level at which the data is needed, and
(3) the periodicity at which the data needs to be updated.

There may also exist possibilities of implementing a specific census supplementary module only in any specific region where the questions contained in the module are more relevant. Such options need to be explored at the census-survey planning stage keeping in view resource availability, users demands and the work load for the field work.

5. Examples of Modular Approach

The modular approach could be operationalised as:

(1) Long and short-questionnaire, as in Thailand, or
(2) A phased Census-Survey programme based on complete enumeration and sample surveys, as in India and Niger

Example 1. **Thailand** implemented short-long questionnaire approach, whereby every fourth agriculture household was selected to answer the long form. Broadly, the data item coverage of these forms was as follow;

Short Form	**Long Form** (Detailed information)
Land Use: Parcel number and Total Area Crop cultivated: Rice, Para rubber, Permanent Crop, Field crop, Vegetables, Forest Land tenure: Owner Land, Non owner land, Type of document of owner land	Land Use: Parcel number and Total Area Livestock Crop cultivated: Rice, Pararubber, Permanent Crop, Field crop, Vegetables, Forest, Flowers and ornamental plants, herbs Land tenure: Owner Land, Non owner land, Type of document of owner land Fresh water culture Fertilizer and pesticide Employment on holding Machinery Household income and debt for agriculture

It is also possible to decide on use of long or short question based upon size of the holding.

Example 2. **Indian programme for agricultural census** comprises 3 phases:
Phase 1 (Listing): A listing of crop holdings is carried out using the land cadastre or door-to-door enquiry.
Phase 2 (Main Census): Information on land use, land tenure, cropping pattern and irrigation infrastructure is collected through enumeration work in 20% of the villages randomly selected. In the States and Union Territories without Land Records, a stratified two-stage sampling design is applied.

Phase 3 (Input Survey): Data on application of inputs along with details of multiple cropping, agricultural machinery, credit and livestock are collected through a stratified sub-sample selected from 7% of villages from the 20 villages where census was conducted. The stratification is based on size of holdings collected during the listing. This is conducted one year after the main census.

Example 3: **Niger** collected on the 16 data items recommended for the core agricultural census as part of agriculture module of the population census. This module included questions on land use, land tenure and crop-cultivation and sedentary livestock. This provided sampling frames of most of the agricultural surveys which were implemented as a phased programme. There was a special module on Nomadic and semi-nomadic livestock. Other thematic survey module included: Food security module, Vegetable survey module, Livestock productivity module and Annual agricultural crop production survey modules.

6. Planning a Modular Approach

Typically, the planning for any large scale data collection exercise should begin by taking stock of all the on-going statistical activities in a country, including efforts made by the National Statistical Office, Line Ministries and Departments, Non-governmental Organizations and even the private sector. In most cases, such an exercise reveals some duplication in efforts.

Given that the funds for statistical activities are generally scarce, every effort should be made to avoid duplication in data collection efforts; also to avoid confusing the user with multiple estimates of the same characteristics. A list of surveys conducted in the country with coverage of data items in them should invariably be prepared. An integrated census-survey programme could then contribute to improvement in these surveys: by way of providing better sampling frames or a more representative sampling design.

Often, it is a good idea to make an assessment of user demand with inputs from stakeholders in agricultural census-survey programme. This assessment could be carried out through:

1. A formal User Survey to assess to expectation for different categories of data users. An example of this is attached in Annex -1.
2. A Working group of data producers and users from different categories of stake holders
3. Structured interviews of prominent users
4. Regular comments received through the web-sites and E-mail.

No matter what method is adopted for carrying out an assessment of user requirement, it is always a good idea to present the synthesised assessment in a User-Producer workshop to validate the conclusions as also to gain the support of the user community in the national plan for collection of agricultural statistics. This workshop may also serve as building partnerships in the data collection efforts by way of sharing of manpower and financial resources needed for implementation of an integrated programme for census and survey.

Usually, in situations where data sources are not developed and conduct of an agricultural census is a rare occasion, the list of data demands tends to be long and unmanageable in any single census and/or survey. At this stage it will be good to specify for each data item:

- the degree of details with which the data is required,
- the administrative level at which the data is needed,
- the acceptable level of precision in the estimates,
- the frequency/ periodicity at which the data is needed,
- the number of users a data items, and
- the use of the data.

Having obtained these details, a survey planner is in a better position to decide whether a particular data item is suitable of complete enumeration or sample enumeration. The complete enumeration items will indeed go Census supplementary Module with the Core Census module. The sampling modules could also be implemented with the census using long-shot questionnaire approach. Thematic Sample Survey which will collect very detailed data will indeed be done after the census. Example of these surveys are: a livestock survey to estimate meat production per animal slaughtered, crop yield survey, survey of commercial vegetable producers et.

In most country situation the statistician will be expected to provide scenarios of data collection programme along with associated costs for the whole programme for census and surveys as well as spread of expenditure. The choice of a programme will, in most cases, will be made on the basis of availability of resources. Thus it will be good to build a bit of flexibility in the programme so that it could easily expand when the resources become available. This issue is particularly relevant for availability of frames for conducting

specialized surveys. For example, if a meat production survey was not foreseen, even if the budget is not immediately available, at the census planning stage, it will be costly to build a special frame for such a survey when the resources become available.

In the ultimate analysis, given the innumerable considerations and trade-offs involved in process of development of a statistical system, the task of a survey planner involves a bit of creativity. The task of developing a feasible integrated plan for census and surveys is an art rather than just the statistical principles and management of field operations.

ANNEX-1

.....MODEL EXAMPLE for LEARNING.....

Survey on Assessment of Needs of Users of Agricultural Statistics
- - - Q U E S T I O N N A I R E - - -

Dear respondent,
Department of Statistics, supported by an International DONOR and FAO is committed to plan and implement a new system of agricultural statistics in conformity with international norms and standards and in accordance to the needs of all categories of users. To this goal we kindly ask you to fill in the questionnaire below. Besides obtaining your opinion on the present status of Agricultural Statistics and your preferences for obtaining the data, the survey aims to precisely assess the demand for various types of statistics.

Your feed back will provide vital input into the process of building of a new system for collection of agricultural statistics and would help the Department set priorities.
Thank you for your cooperation and understanding!

Part A: User Profile

(Please mark by putting **X** *in the box corresponding to your profile)*

1. **Nature of Organization in which you are working** (please mark only one box)**:**
- Government Department/ Ministry..... ☐ (1)
- Parliament..... ☐ (2)
- District office..... ☐ (3)
- Bank ..... ☐ (4)
- Development Research Institution ..... ☐ (5)
- Academic Institution..... ☐ (6)
- NGO (non-governmental organization) ..... ☐ (7)
- International Organization/Agency ..... ☐ (8)
- mass-media ..... ☐ (9)
- Private company..... ☐ (10)
- Other (please specify)_____ ☐ (11)

2. Nature of your duties in the organization (mark one or several boxes, if the case)**:**
- Policy analysis and policy formulation for development..... ☐ (1)
- Management and execution of projects ..... ☐ (2)
- Identification of investment opportunities and formulation of development projects ..... ☐ (3)
- Technology dissemination ..... ☐ (4)
- Market management..... ☐ (5)
- Consulting activities..... ☐ (6)
- Teaching and research..... ☐ (7)
Other (please specify) _____ ☐ (8)

3. Which specific aspect of Food and Agriculture sector you are particularly concerned (mark one or several boxes, if the case)**?**
- Crop Production..... ☐ (1)
- Livestock rearing..... ☐ (2)
- Fishing and Aquaculture..... ☐ (3)
- Food supply ..... ☐ (4)
- Food safety ..... ☐ (5)
- Crop health monitoring ..... ☐ (6)
- Livestock health ..... ☐ (7)
- Rural development ..... ☐ (8)
- Other (please specify) _____ ☐ (9)

4. What activities are your primary concerns? (mark one or several boxes, if the case)**:**
- Production process ..... ☐ (1)
- intermediate consumption ..... ☐ (2)
- Post harvest storage and processing..... ☐ (3)
- Marketing..... ☐ (4)
- Other (please specify)_____ ☐ (5)

5. How frequently do you need statistics for your work (please mark only one box)**?**
- Almost daily ..... ☐ (1)
- Once a week ..... ☐ (2)
- Occasionally..... ☐ (3)
- Rarely..... ☐ (4)

6. Which data sources you mostly rely on? (mark one or several boxes, if the case
- Department of Statistics..... ☐ (1)
- Ministry of Agriculture..... ☐ (2)
- Other ministries/government agencies..... ☐ (3)
- National Bank ..... ☐ (4)
- Local authorities..... ☐ (5)
- Various registers..... ☐ (6)
- Other administrative sources..... ☐ (7)
- Research inquiries/studies..... ☐ (8)
- International organizations..... ☐ (9)
- Other (please specify)_____ ☐ (10)

Part B. General assessment of existing sources of agriculture statistics

Please give your general opinion about current state of data on agriculture sector, particularly on the aspects linked to your activity. Mark the option by inserting corresponding number in the box for each quality component

		Availability vs. needs	**Source and evaluation** *(To be completed only if the answer in the previous column is (1)*			
		Do you need the data of this group and are they available to you?	**Which is the data source you usually use?**	**How completely your needs are met?**	**How timely the data are available?**	**How reliable are the data**
Major data groups		codes: (1)- Available (2)- Needed but not available (3)- Not needed	codes: (1)- Department of Statistics; (2)- Ministry of Agriculture; (3)- Other administrative sources (4)- Scientific studies (5)- International organizations; (6)- Other sources	codes: (1)- completely (2)- adequately (3)- only partially (4)- with efforts (5)- not at all	codes: (1)- available on time (2)- available with delay but useful (3)- available when the operational need is over	codes: (1)- reliable and accurate (2)- workable (3)- not dependable
		1	**2**	**3**	**4**	**5**
1. Holdings and holders	1					
2. Land operated by holdings	2					
3. Irrigation and water management	3					
4. Temporary crops	4					
5. Permanent crops	5					
6. Livestock	6					
7. Animal production	7					
8. Fertilizers	8					
9. Agricultural chemicals	9					
10. Machinery and equipment	10					
11. Agricultural buildings	11					
12. Agricultural practices	12					
13. Producer prices	13					
14. Labour force	14					
15. Agricultural services	13					
16. Use of agricultural production	16					
17. Cost of production	17					

Part C Expectations from the new integrated system on agricultural statistics

Here we would like to find out your preferences on how to receive agricultural statistics data. Please indicate your answers by inserting the appropriate code number in the cells of the table below

Data items		Degree of need to your work?	Desired periodicity	Lowest administrative level at which data is needed?	Acceptable error	Acceptable time-lag
			(to be completed only if the answer in the previous column is not (5))			
		Codes: (1) Can' to without it (2) Hard to do without it; (3) Need it (4) Good to have it (5) Do not need it	***Codes:*** (1) - daily (2) - weekly (3) - monthly (4) - quarterly (5) - annually (6)- periodicity of more than one year (7)- occasionally	***Codes:*** (1) -Country (2) -Region (3) -District (4) -Sakrebulo (5) - Village	***Codes:*** (1) ± 2% (2) ±5 % (3) ±10 %	***Codes:*** (1) 1 day (2) 5 days (3) 10 days (4) 1 month (5) 2 months (6) a quarter (6) half a year (7) a year (8) more than one year
		1	**2**	**3**	**4**	**5**
1. Holdings and holders						
- Distributions by various characteristics	11	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Holder characteristics	12	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	13	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
2. Area operated by holdings						
- By land tenure	21	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- By land use	22	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	14	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
3. Irrigation and water management						
- Area irrigated by crops	31	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Area irrigated by method of Irrigation	32	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Source of irrigation water	33	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Payment terms for irrigation Water	34	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Drainage	35	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	36	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
4. Temporary crops (by each individual crop)						
- Area sown/ harvested	41	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Harvest	42	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Yield	43	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Ongoing information on Sowing	45	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Ongoing information on Harvesting	46	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Production forecasts	48	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	49	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
5. Permanent crops (by each individual crop)						
- Area of compact plantations	51	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Number of trees	52	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋

Data items		Degree of need to your work?	Desired periodicity	Lowest administrative level at which data is needed?	Acceptable error	Acceptable time-lag
			(to be completed only if the answer in the previous column is not (5))			
		Codes: (1) Can' to without it (2) Hard to do without it; (3) Need it (4) Good to have it (5) Do not need it	***Codes:*** (1) - daily (2) - weekly (3) - monthly (4) - quarterly (5) - annually (6)- periodicity of more than one year (7)- occasionally	***Codes:*** (1) -Country (2) -Region (3) -District (4) -Sakrebulo (5) - Village	***Codes:*** (1) ± 2% (2) ±5 % (3) ±10 %	***Codes:*** (1) 1 day (2) 5 days (3) 10 days (4) 1 month (5) 2 months (6) a quarter (6) half a year (7) a year (8) more than one year
		1	**2**	**3**	**4**	**5**
- Harvest	53	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Yield	54	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Nurseries	55	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Planting/felling of trees	56	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Ongoing information on harvesting	57	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Production forecasts	58	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	59	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
6. Livestock (by each individual specie)						
- Total numbers	61	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Numbers by age and sex (big animals)	62	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Numbers by breeds	63	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Numbers by purpose	64	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Births, felling, acquisitions, disposals	65	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Feed type used	66	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Weight gaining	67	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Veterinary services	68	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	69	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
7. Animal Production (by each individual specie)						
- Production	71	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Productivity	72	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	73	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
8. Fertilizers (by crops)						
- Area fertilized	81	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Area fertilized by crops	82	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Quantities used	83	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Quantities used by crops	84	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋

Data items		Degree of need to your work?	Desired periodicity	Lowest administrative level at which data is needed?	Acceptable error	Acceptable time-lag
			(to be completed only if the answer in the previous column is not (5))			
		Codes: (1) Can' to without it (2) Hard to do without it; (3) Need it (4) Good to have it (5) Do not need it	***Codes:*** (1) - daily (2) - weekly (3) - monthly (4) - quarterly (5) - annually (6)- periodicity of more than one year (7)- occasionally	***Codes:*** (1) -Country (2) -Region (3) -District (4) -Sakrebulo (5) - Village	***Codes:*** (1) ± 2% (2) ±5 % (3) ±10 %	***Codes:*** (1) 1 day (2) 5 days (3) 10 days (4) 1 month (5) 2 months (6) a quarter (6) half a year (7) a year (8) more than one year
		1	**2**	**3**	**4**	**5**
- Other (please specify).....	85	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
9. Agricultural chemicals (by crops)						
- Area treated	91	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Area treated by crops	92	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Quantities used	93	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Quantities used by crops	94	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	95	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
10. Agricultural machinery (by type of activities, except tractors)						
- Quantities by capacity	101	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Quantities by age and working condition	102	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Use of machinery and equipment	103	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Use of machinery and equipment by source	104	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	105	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
11. Agricultural buildings (by type, for vegetal production and animals)						
- Quantities	111	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Capacity	112	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Types of tenure	113	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	114	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
12Agricultural practices						
- Incidence of a practice	121	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	122	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
13. Producer prices in agriculture (by type of agricultural products)						
- Prices	131	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Indices	132	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	133	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
14. Labour force						
- Number of workers	141	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Hours worked	142	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋

Data items		Degree of need to your work?	Desired periodicity	Lowest administrative level at which data is needed?	Acceptable error	Acceptable time-lag
			(to be completed only if the answer in the previous column is not (5))			
		Codes: (1) Can' to without it (2) Hard to do without it; (3) Need it (4) Good to have it (5) Do not need it	***Codes:*** (1) - daily (2) - weekly (3) - monthly (4) - quarterly (5) - annually (6)- periodicity of more than one year (7)- occasionally	***Codes:*** (1) -Country (2) -Region (3) -District (4) -Sakrebulo (5) - Village	***Codes:*** (1) ± 2% (2) ±5 % (3) ±10 %	***Codes:*** (1) 1 day (2) 5 days (3) 10 days (4) 1 month (5) 2 months (6) a quarter (6) half a year (7) a year (8) more than one year
		1	**2**	**3**	**4**	**5**
- Other (please specify).....	143	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
15 Agricultural services (by type of activities)						
- Access to the service	151	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Use of the service	152	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Sources of the service	153	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	154	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
16. Use of agricultural production (by agricultural products)						
- In physical terms	161	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- In value terms	162	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	163	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
17. Cost of production						
- Intermediate consumption	171	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Capital expenditure	172	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Taxes	173	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
- Other (please specify).....	174	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
18. Please insert in the left column below any other general or specific items not covered above which you need in your work, and fill in the table for them						
		⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
		⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
		⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
		⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋
		⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋	⌊__⌋

Part D. Preferences for receiving data

(Please mark by putting **X** in the appropriate box/boxes)

D1 How would you like to receive the data? (please mark only one box)

Printed format…….....☐ (1) Electronic formats like CDs.....☐ (2)

Both in electronic and printed format…….....☐ (3)

(if answer is (1) go to d3)

D2. In which form would you prefer to receive the information about the electronic format? (mark one or several boxes, if the case)

Electronic formats (floppy, CDs)..... ☐ (1) Through periodic E-mails.....☐ (2)

From internet…….....☐ (3) Other (please specify)_____ ☐ (4)

D3. In which form would you like to receive the data? (mark one or several boxes, if the case)

Numbers, Tables ……..... ☐ (1) Graphs, charts…….....☐ (2)

Maps…….....☐ (3) Other (please specify)_____ ☐ (4)

D4. Would you prefer to receive the above with or without analysis of results that facilitate decision making? (please mark only one box)

With…….....☐ (1) Without…….....☐ (2)

Part E. Suggestions on mechanism for involvement of users

(Please mark one or more alternatives you prefer by putting **X** *in the appropriate box/boxes)*

Discuss the programme on agriculture statistics at meetings where representatives of users take part..... ☐ (1)

Create special working groups for agricultural statistics.....☐ (2)

Use frequently opinion survey for the users of statistics on agriculture..... ☐ (3)

Insert short questionnaire in statistical publications on agriculture to be filled in by users..... ☐ (4)

Other (please specify)_____ ☐ (5)

Part F. Please expose your general views about the future system of agricultural statistics in the country, specifically on the following topics:

a) Coordination and integration of the system among various institutions

_____

_____

b) Sharing of human and financial resources for data collection and processing of the main agricultural statistics works

_____

_____

c) Which part of the system you consider possible to take over on your charge?

_____

_____

d) Which kind of administrative sources that can be used for statistical purposes you consider appropriate to develop/maintain/improve?

_____

_____

Thank you for the collaboration!