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**Methodology for conducting telephone surveys in agriculture**

**1. General provisions**

1. Methodology for conducting telephone surveys in agriculture (hereinafter - Methodology) refers to the statistical methodology, formed in accordance with international standards and approved in accordance with the Law of the Republic of Kazakhstan dated March 19, 2010 "On State Statistics".

This Methodology defines the main approaches to organizing and conducting the collection of primary statistical data within the framework of nationwide statistical surveys by telephone survey using a computerized system.

The methodology is applied by the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan and its territorial bodies when conducting national statistical surveys in agriculture.

The methodology was developed within the framework of the project “KAZSTAT: Project to Strengthen the National Statistical System”, taking into account the study of the experience of European countries in the field of collecting primary statistical data by telephone interview, using the example of the Statistical Office of Poland.

2. In agricultural statistics, various collection methods are used to obtain primary statistical data from agricultural producers (hereinafter - agricultural holdings). Along with the collection of primary statistical data from respondents on paper and in electronic form, through a personal survey by an interviewer using paper or using a tablet, data collection through a computerized telephone survey system is also used.

3. Computerized telephone survey system (hereinafter - CTIS) - an information system that allows nationwide statistical observations to be carried out by interviewing respondents by telephone.

The telephone survey is conducted by a specially trained telephone interviewer, who is an employee of the territorial body of statistics, whose functional duties additionally include the collection of primary statistical data on nationwide statistical observations using CTIS, provided for this with appropriate equipment and software on a personal computer (hereinafter - telephone interviewer). The telephone interviewer during such a survey has at his disposal a telephone headset and a computer terminal, with special software that allows you to automatically dial the respondents and issues a questionnaire with a list of questions. After the interview, all questionnaires fall into a single research database.

4. The work of telephone interviewers is coordinated by a supervisor, who is an employee of the Committee on Statistics or its territorial body , whose functional duties additionally include coordinating and evaluating the work of telephone interviewers (hereinafter - supervisor).

5. A computerized telephone survey system has its pros and cons, which influence the decision to use this method of collecting primary statistical data within the framework of one or another nationwide statistical observation. The decision in favor of choosing CTIS for data collection is made in the following cases:

the need to reach a large number of respondents in a very short time;

conducting statistical observation within the limits of the budget;

conducting a survey of respondents located in remote and hard-to-reach settlements.

6. Due to the fact that the range of respondents for data collection by telephone survey is limited by the need for the respondent to have a telephone, CTIS is used only in combination with other methods of data collection.

When deciding on the possibility of collecting data on statistical observation by the CTIS method, the size of the questionnaire (the recommended average duration of one interview is no more than 20 minutes) and the content of the questions are also taken into account. The opportunity to warn the respondent in advance about the time of the telephone interview is taken into account so that he prepares the necessary data.

7. The process of organizing and conducting telephone interviews consists of several stages:

development of an electronic questionnaire adapted for the CTIS system;

determination of a specific list of respondents who, during statistical observation, will be interviewed by phone;

training of telephone interviewers and supervisors in the methodological basis for conducting a specific statistical observation and the technology of questioning and data entry through the CTIS system;

making a call;

conducting telephone interviews and data entry;

assessment of the quality of the telephone interview.

**2. Development of a questionnaire for CTIS**

8. The task statement for the electronic questionnaire adapted for the CTIS system is developed by the structural subdivision of the Committee on Statistics, responsible for the compilation of agricultural statistics.

9. When developing, it is taken into account that the telephone survey is conducted as soon as possible, in connection with which the respondent is not asked all the questions provided in the questionnaire or form, but only those on which the respondent has the opportunity to provide information. To do this, questions are arranged sequentially. Intermediate questions are provided, on which it is found out whether a process or phenomenon takes place, then, based on the results of the answer, a transition takes place either to more detailed questions or to the next topic. Suppose the question is asked whether the respondent had cows on the farm during the reporting period. In the case when the respondent answers positively, a question is asked about the amount of cow's milk produced. In the case when the respondent answers that he had no cows on the farm, the question about milk yield is not asked. An example of building questions for an electronic questionnaire in CTIS is given in Appendix 1 to this Methodology.

10. In order to minimize the number of possible errors and improve the quality of data, various kinds of arithmetic-logical controls are carried out during the telephone survey at each stage of data entry. To do this, the problem statement provides for all possible validations, that is, correct and erroneous situations in responses, including valid and invalid arithmetic-logical controls. An example of building validations for an electronic questionnaire in CTIS is given in Appendix 2 to this Methodology.

**3. Determination of the list of respondents for CTIS**

11. To conduct a telephone survey, an individual catalog of respondents with current telephone numbers is formed. The updating of telephone numbers in the statistical registers is coordinated by the structural subdivision of the Committee on Statistics responsible for maintaining the registers. Updating is carried out by territorial statistical bodies using data from national statistical observations and other sources. To conduct a telephone survey, both fixed and mobile phone numbers of respondents are used.

12. Due to the fact that the answers in the statistical questionnaires on agriculture assume that the respondent has a deep knowledge of quantitative data about his agricultural production, the respondent is warned in advance about the time of the interview in order to enable the farmer to prepare and have the necessary data at hand at the time of the interview. Preliminary contact with the respondent is also important to determine the respondent's willingness to use such a data collection method as a telephone survey to provide data to the state statistics authorities in order to reduce the percentage of refusals already in the survey process.

**4. Preparing the phone i interviewer**

13. Selection and training of telephone interviewers is carried out by the territorial statistical bodies in the field from among full-time employees. When selecting telephone interviewers, the following qualities of candidates are taken into account:

the ability to assimilate the material of statistical observation;

the ability to understand oral and written instructions for conducting telephone interviews and apply them in the course of work;

the ability to make decisions in unexpected situations and clearly formulate an idea;

diligence, discipline;

the ability to establish contact and evoke a feeling of sympathy among respondents, to listen and understand the behavior of others;

good diction.

14. The process of training telephone interviewers is carried out in the following stages:

1) training in the main methodological aspects of statistical observations in agriculture;

2) the study of questionnaires for specific statistical observations, adapted for a telephone survey;

3) briefing on working with the software Application for conducting a telephone survey and data entry;

4) practical role-playing games, in which each question is analyzed in detail (possible answers, intonations, reactions to the answer, and so on);

5) teaching the basic rules of behavior of a telephone interviewer, telephone interviewing techniques.

**5. Making a call while conducting a telephone survey**

15. The first step in conducting a telephone interview is the process of calling the respondent. The call is made automatically by the system. There are several variants of the dialing result, each of which provides for a certain action on the part of the telephone interviewer.

16. All dialing results are divided into two groups:

the call was not made;

the call has been made.

17. Dialing is considered failed in cases where:

number does not answer;

the number is busy;

this number is not in service.

In cases where the number is unanswered or the number is busy, the telephone interviewer indicates in the system that the number needs to be called back. This number is called up to four times before the expiration of the telephone survey period. After that, dialing stops, in the system, no dialing is indicated for this number.

In the case when a message is received during dialing that the number does not exist, the telephone interviewer indicates in the system that the number is incorrect, after which the dialing stops, and no answer is indicated in the system for this number.

After the final establishment of the fact of non- response of the respondent using the telephone interview method, further collection of primary data is carried out by other methods.

18. Dialing is considered to be carried out if any contact with the subscriber is established, that is, someone picked up the phone. In this case, the telephone interviewer clarifies whether the subscriber is the desired respondent.

If the caller is not the desired respondent, the telephone interviewer marks the wrong number in the system and terminates the call.

If the caller is not the target respondent, but knows the respondent and can suggest the correct number, the telephone interviewer enters the correct respondent number into the system, makes a note that the respondent needs to be called back later, and ends the conversation.

If the number has an answering machine installed, the telephone interviewer leaves a message and makes a note in the system.

If contact with the desired respondent is established, but at the moment the respondent is not ready for the survey and asks to call back at another time, the telephone interviewer specifies the time convenient for the respondent, makes a corresponding mark in the system and ends the conversation.

If contact is made with the target respondent, but the respondent refuses to be interviewed by phone, the telephone interviewer makes an appropriate note in the system about the refusal and the need to change the method of collecting data from this respondent and ends the conversation.

If the connection is interrupted during the conversation, the telephone interviewer makes a corresponding note in the system that the interview is not completed.

If contact with the desired respondent is established, and he is ready to conduct a dialogue, the survey begins.

**6. Actions of the telephone interviewer during the interview**

19. When conducting a telephone interview, the telephone interviewer:

introduces himself as a representative of the territorial body of the Committee on Statistics, gives his last name, first name, patronymic (if any);

Briefly but clearly outlines the purpose and objectives of the telephone survey;

during the interview, addresses the respondent by name and patronymic (if any);

adheres to the wording and sequence of questions set out in the toolkit;

conducts a survey in a natural tone, in a manner of conversation;

speaks clearly and distinctly throughout the interview;

advances at a pace that is convenient for the respondent, but does not drag out the interview for a long time;

maintains a sufficient pause between questions so as not to allow the respondent to get sidetracked and lose his interest and attention until the end of the interview, small pauses are allowed while the telephone interviewer marks the respondent's answer on the questionnaire screen;

constantly monitors the conversation so as not to allow the respondent to be unnecessarily distracted and involve the interviewer in their problems;

maintains contact with the respondent, controls his own behavior, not allowing any influence on the content of the respondents' answers;

in case of detection of errors in the answers of the respondent during the interview, timely clarifies the data;

at the end of the telephone survey, thanks the respondent for their cooperation.

20. Before disconnecting, the telephone interviewer makes sure that the respondent has no questions about this statistical observation, and he is ready to use this method of providing statistical data in the future.

21. In the event that contact is established with the desired respondent, but he refuses to conduct a survey by telephone, the telephone interviewer:

1) provides the interlocutor with additional information:

tells how long the interview will take;

notes that it is possible to call back another time, at a more convenient time;

explains how this respondent was selected and that substitution is not allowed;

once again explains the purpose of statistical observation, indicates that its implementation is important for analyzing the situation in this area and making government decisions.

2) shows flexibility:

tries to change his approach to establishing contact;

shows a willingness to end the interview and call back at another time, especially if there is a feeling that the threat of rejection is looming;

ends the conversation before the refusal becomes explicit, so as not to appear intrusive.

22. In cases where the respondent is not ready to give an answer because he does not know it or has forgotten it, the telephone interviewer gives the respondent some time to think or recommends looking at some document that will give the necessary information.

23. Changing the wording of questions and their order during the interview by a telephone interviewer is not allowed.

If the respondent does not understand the question and asks to repeat it, the telephone interviewer reads the question again in the same wording as given in the questionnaire.

24. In the case when the telephone interviewer believes that the answer received from the respondent is fuzzy, unclear, ambiguous, clarifying probing is used, in which additional questions are asked to clarify the information.

25. In the case when the telephone interviewer needs to clarify a rather long answer of the respondent, together with the clarifying question, the part of the answer that needs clarification is quoted.

26. When probing factual questions, the telephone interviewer:

1) requests only accurate information (exact figure, date);

2) if the respondent did not immediately give an exact answer, he asks if he could indicate a more accurate figure, date;

3) if the respondent cannot do this, asks him to give an approximate answer or an estimated value. It is important to make sure that the respondent gave the closest answer to the exact answer, for example, by asking which of the two answers he considers more accurate.

27. In the case where a question involves a choice of one of several ready-made answers, the telephone interviewer reads all answers and prompts clearly and always to the end of the last paragraph.

In this case, the telephone interviewer provides a sufficient pause between prompts to separate one prompt from another, in order to prevent a situation where the respondent interrupts the telephone interviewer before he has read all the points.

If the respondent responds before all the prompts are given, the telephone interviewer notes that he would like to read all the possible answers to the respondent before he makes his choice. If the respondent gives an answer that is unclear or modified in any way, the telephone interviewer asks which answer is generally more appropriate and repeats the prompts.

28. During the probing, the telephone interviewer:

1) avoids the use of leading and negative questions, the wording of which suggests an answer;

2) avoids hints that the respondent may not know the answer;

3) avoids assuming that he knows the exact answer based on what the respondent said earlier;

4) does not allow the use of phrases that may sound harsh or hint that the respondent is incompetent;

5) in the case when questions about past events cause the respondent to have difficulty remembering the required facts, accurately and clearly indicate which period the question covers;

6) ensures the consistency of the respondent's answers. Separate instructions for harmonizing questions are given in the electronic questionnaire itself in the software application.

**7. Evaluation of the quality of a telephone interview**

29. To maintain a high level of interviewing and obtain complete and reliable data, supervisors evaluate the quality of work of telephone interviewers in the following areas:

1) compliance with the established deadlines for conducting a telephone survey;

2) compliance with the provisions of this Methodology;

3) compliance with the instructions for the telephone interviewer on a specific statistical observation;

4) compliance with the instructions on the technology of conducting a telephone survey and data entry.

30. Quality assessment is carried out at least once for each telephone interviewer for each statistical observation in agriculture.

31. If inconsistencies are identified based on the results of the assessment, the supervisor makes a decision on the need to retrain the telephone interviewer or replace him.

Appendix 1

to the Methodology for conducting telephone surveys in agriculture

An example of building questions for an electronic questionnaire in CTIS

| Question code | Question | | | | | | | | | | | | | Field code | Note | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAA1 | During the reporting quarter, did you harvest sunflower in area A ? | | | | | | | | | |  | 1. Yes  2. No |  | DAA1 | this question is not asked in Q1 and Q2 | | | |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAA2 | In what quantity did you harvest the following types of sunflower in region A :  (please state in tons with one decimal place) | | | | | | | | | |  |  |  | DAA2 | this question is not asked in Q1 and Q2 | | | |
|  | 1. ► | | food- | | | |  |  |  |  | a | tons |  | DAA2a | DAA2w = DAA2a+DAA2b+DAA2c | | | |
|  | 1. ► | | seminal | |  |  |  |  |  |  | b | tons |  | DAA2b |
|  | 1. ► | | forage | | |  |  |  |  |  | c | tons |  | DAA2c |
|  | w) | | total |  | |  |  |  |  |  | w | tons |  | DAA2w |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAA3 | During the reporting quarter, did you import sunflowers from abroad into District A? | | | | | | | | | |  | 1. Yes  2. No |  | DAA3 |  |  |  |  |
|  |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DAA4 | How much did you import to area A sunflower of the following types:  (please name in tons with one decimal place) | | | | | | | | | |  |  |  | DAA4 |  | | | |
|  | 1. ► | | food- | | | |  |  |  |  | a | tons |  | DAA4a | DAA4w = DAA4a+DAA4b+DAA4c | | | |
|  | 1. ► | | seminal | |  |  |  |  |  |  | b | tons |  | DAA4b |
|  | 1. ► | | forage | | |  |  |  |  |  | c | tons |  | DAA4c |
|  | w) | | total |  | |  |  |  |  |  | w | tons |  | DAA4w |
|  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |

Appendix 2

to the Methodology for conducting telephone surveys in agriculture

An example of building validations for an electronic questionnaire in CTIS

| Error code | Type of error (H - invalid error, S - valid error) | Question code | Validation formula | | Questionnaire screen error message |
| --- | --- | --- | --- | --- | --- |
| the situation is correct | the situation is wrong |
| 1 | 2 | 3 | 4 | 5 | 6 |
| H001 | H | DAA2 | in case of answer "1"  to question DAA1 DAA2w ≠ 0 | in case of answer "1"  to question DAA1 DAA2w = 0 | Harvest data not filled in, fill in data or go back to question DAA1 |
| H002 \_ | H | DAA 4 | in case of answer "1" to question DAA3  DAA4 w ≠ 0 | in case of answer "1" to question DAA3  DAA 4 w = 0 | import data not filled in, fill in data or return to question DAA3 |