Statistical product– Agricultural Census

Processes	Sub-processes	Sub-processes description
1.Specify needs		
	1.1 Identify needs	Agricultural Census was carried out in the Republic of Armenia in October 2014. The results of Agricultural Census were published in December 2016. According to the international methodology and the Law of the Agricultural Census, it is implemented every 10 years. In Armenia the next Agricultural Census will be implemented in 2024. At present, the Armstat implements the monitoring of consumer demand on published results of Agricultural Census. The new questionnaire of Agricultural Census will be composed taking into account the changes of statistical information introduced by consumers, as well as international methodology of implemented Agricultural Census 2020.
	1.2 Consult and confirm needs	The methodology for organizing and carrying out the Agricultural Census in the Republic of Armenia, as well as the Agricultural Census question guide and the questionnaires have been developed according to the guidelines of the Food and Agriculture Organization of the United Nations, with support of USDA expert Michael Steiner, Resident Twinning Adviser Thomas Bie of the EU TWINNING project "Strengthening of the National Statistical System of Armenia", Rolf Selander, senior adviser of the Statistics Sweden, Kristian Hulsager, head of the Agricultural Statistics Department of Denmark Statistics, Karsten Larsen, Director, Statistics Division, Food and Agriculture Organization (FAO), Pietro Gennari, head of he Agricultural Statistics Division of Denmark Statistics, Giorgi Kvinikadze, statistician at the headquarters of the UN Food and Agriculture Organization, experts Oleg Kara and Vasile Petre, as well as the staff of RA

		Ministry of Economy.
	1.3 Establish output objectives	The statistical information users' opinion related to the inclusion of new proposed indicator, as well as to the available indicator to reveal their attitude the requirements and expectations. The requirements and expectations are periodically studied by phone calls and through the "User satisfaction survey questionnaire" which is available on Armstat website (see: https://www.armstat.am/am/?nid=131).
	1.4 Identify concepts	The main users of statistical information are the state government and local self-government bodies, public, scientific-educational, financial organizations, business society, mass media, international organizations, etc. Implementation of the Agricultural Census in the Republic of Armenia is significant also because the data collected during the census will be used to create systems of monitoring indices: poverty monitoring, food security monitoring, agricultural programming and relevant policy development, maintenance of gender-based statistics, improvement of the quality of the current statistics, delivery of more comprehensive information to consumers, etc. In addition to the above-said, the statistical data collected through the Agricultural Census will allow to do the following: improve the current statistics in the sphere of agriculture, establish a complete system on statistical information about the agriculture, create statistical registers for entities engaged in agriculture, develop the sampling tools for statistics and ensure their compliance with the current international standards and criteria, identify the trends of change of the agricultural infrastructures, specify a more detailed composition and structure of the agriculture as an entrepreneurship (economic type of activities). The information collected by Agricultural Census will find its application in such processes as the strategy development in the field of agriculture, solutions of strategic issues, analysis of business environment, identification of development trends of the field etc.
	1.5 Check data availability	The Agricultural Census was carried out throughout the

		whole territory of the Republic of Armenia, in all communities. Data collection was carried out in universal and sample survey:
		- all legal entities engaged in agriculture, private entrepreneurs, and collective farms- universal, questionnaires filled in independently,
		-individual (rural) households: universal survey, questionnaires filled in by the enumerators,
		-individual farms of urban population engaged in agriculture and members of horticultural associations: sample survey, questionnaires filled in by the enumerators. Survey results are representative at the country, village/town/marz levels.
	1.6 Prepare business case	Before the approval of the questionnaire by the Resolution of RA State Council on Statistics, the working discussions on included indicators and the instruction of filling in the questionnaires with the representatives of Armstat marz departments and the statisticians collecting the statistical information are held, and the opinion of international experts is taken into account where possible.
2 Design		
	2.1 Design outputs	The data are collected based on RA Laws on "Official Statistics" and "Five- Year Statistical Program", as well as Law of the Republic of Armenia "On Agricultural Census" (adopted on 27.11.2008), Decrees of the Government of the Republic of Armenia (No. 402-N dated April 25, 2013 and No. 1054-N dated September 26, 2013) and Decisions of the State Council on Statistics of the Republic of Armenia and other legal acts.
	2.2 Design variable descriptions	The information is collected once in every ten years.
	2.3 Design collection	Statistical data is collected through the questionnaire approved by the individual order of RA State Council on Statistics. Data collection is carried out through the sampling

		and comprehensive methods.
	2.4 Design frame and sample	The design of the general population is implemented about the structure of the agriculture – agricultural lands, livestock, agricultural machinery, agricultural facilities, the available human and material resources and their usage to provide complete information as possible. The received information is summarized according to the main types of agricultural products on national level, marz and community levels.
	2.5 Design processing and analysis	During the agricultural census, data collection was carried out with the following methods: • all legal entities engaged in agriculture, private entrepreneurs, and collective farms- universal, questionnaires filled in independently, • individual (rural) households: universal survey, questionnaires filled in by the enumerators, • individual farms of urban population engaged in agriculture and members of horticultural associations: sample survey, questionnaires filled in by the enumerators. All legal entities engaged in agriculture, private entrepreneurs, and collective farms (penitentiary institutions, military units, social service organizations for elderly and disabled, educational institutions, research and experimental subdivisions) were independently filled and provided the questionnaire in accordance with the developed order of Armstat and the relevant department of the responsible sector (also included Mother See of Holy Etchmiadzin of the Armenian Apostolic Church). The questionnaires of individual (rural) households and individual farms of urban population engaged in agriculture and members of horticultural associations were filled by visiting farm by the enumerators. A preliminary tour of houses has been made by the enumerators.

		"3- AC questionnaire of agricultural census was filled and provided to Armstat by legal entities and private entrepreneurs questionnaire. "2-AC questionnaire of agricultural census in rural and urban communities" were filled and provided by rural 866 and urban 29 community leaders. Highlighting the integrity of the quality of received data by the result of Agricultural Census; to evaluate the types and sizes of inaccuracies during the census process is carried out post-agricultural accounting after completing the data collection of Agricultural Census, which are the independent statistical survey/ question at November-December, 2014. Through random sampling it is implemented in 134 rural and urban communities of 10 regions of the republic by 134 enumerators and 25 instructor- controllers.
	2.6 Design production systems and workflow	Before the collection and publication of data, preparation processes is carried out. In order to ensure the adequate awareness to respondents, (all households are provided booklets free of charge) it organizes training courses for employees etc. It is arranged the team consisted from interviewers and moderators. Moderators control and coordinate the implementation of the research.
3.Build		
	3.1 Build collection instrument	Questionnaires needed for the collection of information and the instruction for filling in it are available in paper and electronic form.
	3.2 Build or enhance process components	The methodological guidelines and instructions necessary for information calculation and verification of needed information are available. Input software (Microsoft Office Access) has necessary tools for arithmetic and logical checks of input data.

	3.3 Build or enhance dissemination components	The dissemination of information is possible in paper, as well as in electronic form of publication of information on annual basis.
	3.4 Configure workflows	The derivation of statistical product is carried out by the following successive stages: 1. collection of information, 2. checking questionnaires, coding and information input through the pre designed input software (Microsoft Office Access software), 3. formation of the structure of published indicators by the result of Agricultural Census 4. dissemination of information in paper or electronic forms.
	3.5 Test production system	Due to indicators changes in the statistical reporting form the input software is regularly undergoing to relevant changes. The testing of software is also carried out in case of need.
	3.6 Test statistical business process	In parallel with the inclusion of the indicator in the questionnaire, the field examination of the latter is implemented to test the understanding of it by respondents.
	3.7 Finalize production system	The composition of methodological clarifications on the completion of indicators available in questionnaire, as well as the provision to the statistical data providers (respondents) is carried out, at the same time, maintaining verbal and e-mail contacts with the experts.
4. Collection		
	4.1 Create frame and select sample	The information is collected in sampling and comprehensive methods.

	4.2 Set up collection	In order to organize statistical information collection during the Agricultural Census from units subject to observation, the order of publication of the questionnaires, diaries and the order of filling in them is formed, printed and distributed. At the same time, the questionnaire and diary form are also available on the Armstat website. The introduction of network methods necessary for the electronic data collection is possible during the next Agricultural Census.
	4.3 Run collection	Statistical data collection is carried out: - all legal entities engaged in agriculture, private entrepreneurs, and collective farms- universal, questionnaires filled in independently, - individual (rural) households: universal survey, questionnaires filled in by the enumerators, individual farms of urban population engaged in agriculture and members of horticultural associations: sample survey, questionnaires filled in by the enumerators.
	4.4 Finalize collection	The collected information, after being arithmetically and logically crosses checked, is input in the electronic environment. The information input is carried out automated, as well as by direct input of information in electronic environment.
5.Process		
	5.1. Integrate data	The unification of relevant data received from the Armstat Yerevan and marz (regional) departments in one common database is implemented, in a result of which the duplications would be excluded.
	5.2 Classify and code	The coding work is carried out for the marz and territorial units in accordance with a predetermined order.
	5.3 Review and approval	Highlighting the integrity of the quality of received data by the result of Agricultural Census; to evaluate the types and sizes of inaccuracies during the census process is carried out post-agricultural accounting after completing the data

		collection of Agricultural Census, which are the independent statistical survey/ question. Through random sampling it is implemented more than 100 rural and urban communities of different regions of republic by enumerators and instructor- controllers.
	5.4 Edit and impute	The completion of the missing data is implemented using the data by community leaders, in case of the lack of the alternative information on them.
	5.5 Derive new variables and units	Additional calculations and estimations for the calculation of other indicators are not available.
	5.6 Calculate weight	As the information provided ensures the statistical integrity of the sphere thus there is no need for additional weights calculation.
	5.7 Calculate aggregates	The summary data by separate statistical indicators are derived based on the input data through the pre-designed software.
	5.8 Finalize data files	The adjustment of statistical data by the result of Agricultural Census and the structure of published indicators based on the result of AC (publications formats, output tables, and more) works are carried out. The final data is published.
6.Analysis		
	6.1 Prepare draft outputs	-
	6.2 Validate outputs	The methodological requirements to the received indicators are strictly followed during the whole process of indicators receiving according to the pre-defined classifications, methodological guidelines and the instruction on completing questionnaires.
	6.3 Explanation and interpretation of outputs	After receiving a list of summary indicators, it is carried out their logical analysis.
	6.4 Apply disclosure control	From the collection of information until the publication of statistical information and its provision to user the confidentiality requirements to the statistical data that is not containing individual (personal) data, are strictly followed

		according to the Law of the Republic of Armenia "On Agricultural Census".
	6.5 Finalize outputs	Before the dissemination of summary information, it is carried out publications format and work on derivation of output tables.
7.Dissemination		
	7.1 Update output system	The work on the derivation and final checking of relevant tables of statistical indicators that are subject to publication is carried out, as well as the time series update is implemented. In case of the need the changes and/ or additions are made in the concepts and methodological explanations of the relevant indicator.
	7.2 Produce dissemination products	All the production steps are implemented for the disseminating products: preparation of explanatory text, tables, charts and other materials, editing of these products and making them compliant with publishing standards. The information on the statistical indicators is published in paper form (hard copy) and electronic versions in Armenian, Russian, and English through the yearbooks, statistical handbooks and monthly informational reports. Main Findings, Agricultural Census 2014 of the Republic of Armenia Statistical Handbook (Armenian, English and Russian). Electronic publications are available in Armenian, Russian and English at: https://www.armstat.am/en/?nid=82&id=1860.
	7.3 Manage release of dissemination products	The dissemination of statistical information is carried out according to the schedule envisaged by the Five-Year and Annual Statistical Programs.
	7.4 Promote dissemination products	-
	7.5 Manage user support	In case of the official request of the users of statistical information related to the information not being published, the calculation of additional indicators is carried out at

		possible extend (in case of need) and submitted to them following the principle of confidentiality of primary statistical information.
8.Evaluation		
	8.1 Gather evaluation input	-
	8.2 Conduct evaluation	-
	8.3 Agree an action plan	-