

Statistical product – Construction production (monthly/ annual), construction production indices (monthly)

Processes	Sub-processes	Sub-process description
<i>1.Specify needs</i>		
	1.1 Identify needs	The main purpose of collecting indicators is to provide users with a short-term and annual information on construction volumes. The indicators are applied in the field of construction for the purposes of strategy development, solutions of strategic tasks, analysis of business environment, revealing development trends and other purposes.
	1.2 Consult and confirm needs	The indicators are collected according to the Annual Statistical Program (it is available on the Armstat website at https://www.armstat.am/am/?nid=191 , which is also elaborated on the basis of users demand by the statistical information taking into account the limits of available resources, the capacity of statistical information providers and cost-effectiveness. The users' opinions about statistical information are studied by business discussions as well as through the "User satisfaction survey questionnaire" which is available on Armstat website (see: https://www.armstat.am/am/?nid=131).
	1.3 Establish output objectives	In the process of the collection, use, publication and storage of needed information (data) for the calculation of indicators the provisions of RA Law on "Official Statistics" related to the statistical data confidentiality are strictly followed (see: http://www.armstat.am/file/doc/99486043.pdf).
	1.4 Identify concepts	The need to introduce indicators is stimulated by the requirements of users for statistical information.
	1.5 Check data availability	The main sources of information collection are legal entities, institutions, businesses, private entrepreneurs, regional

		<p>administrations, and municipalities, communities that finance construction and construction activities, as well as the offices implementing credit projects (that are implementing construction at the expense of credit or grant funds provided by the foreign and international organizations.</p> <p>The data collection is carried out through the statistical reporting form for annual and five-year statistical programs.</p> <p>Data collection is carried out by the statistical reporting form according to the Annual and Five –Year Statistical programs.</p>
	1.6 Prepare business case	<p>The necessary data for calculating indicators are obtained from the statistical reporting forms. Before the approval of the statistical reporting form by the RA State Council on Statistics and its state registration by the RA Ministry of Justice, as a legal act, the discussions on indicators included in them and the instructions for their completion are carried out with different interested institutions, research organizations, and users, as well as the opinion of international experts is taken into account.</p>
2.Design		
	2.1 Design output	<p>The data are collected based on the Law on "Official Statistics" and "Five-Year Statistical Program", as well as the Resolution No. 05-N of RA State Council on Statistics "On Approval of the Procedure for the collection of statistical data" dated 20 June 2016 and Resolution "On Approval of Annual Statistical Program", as well as Resolution of the RA State Council on Statistics No 20-N on approval of statistical reporting form "On operation of capital assets and implementation of construction of entities " (2 KC (monthly) dated October 19, 2018 and Resolutions of the RA State Council on Statistics No 21-N "On operation of capital assets and implementation of construction of entities " (2 KC (annual) dated October 19, 2018 on approval of instructions on how to fill it in.</p>
	2.2 Design variable description	<p>The Revision 2 of Classification of Types of Economic Activity is used for the collection of indicators (Order of the Minister of Economy of RA N-1579 RA, OB 04.11.2013 30/(474)1, dated 10 December 2019) (NACE Rev.2) (see: https://www.armstat.am/am/?nid=370).</p>

	2.3 Design data collection	<p>Statistical data collection is carried out through the statistical reporting forms, approved by the State Council, according to Annual Statistical Program as well as electronic methods.</p> <p>The data collection is mainly carried out by widespread calculation method.</p>
	2.4 Design frame and sample	<p>The design of the general population is implemented to provide complete information regarding the sphere. For this purpose, it is implemented the receiving of information from all possible sources (information on construction permits, objects under construction, construction operation acts) on the fact of activity of construction organizations previously known and immediately, the organizations are notified about being covered in the statistical observation field and then the relevant statistical information is collected.</p>
	2.5 Design processing and analysis	<p>After the collection of information the statistical indicators are subject to arithmetic and logical checks, and in case of necessity the appropriate adjustments are carried out also by contacting the relevant organizations that provide the information. In case of submission of not reliable, incomplete or corrupted information on indicators, in case of need the process of verification is also implemented according to the requirements of the Article 169.2 of RA Code on “Administrative Offences”, as a result the prior period data are subject to be adjusted. In order to ensure the completeness of registration field the evaluation of non-observed (non-registered) field is carried out according to the results of the sample survey.</p>
	2.6 Design production systems and workflow	<p>The preparatory work is carried out for all processes from the collection of information and until its publication, particularly, related to the appropriate notification of respondents, the training of the staff through professional courses and etc.</p>
3. Build		
	3.1 Build collection instrument	<p>The statistical reporting form needed for the collection of information and the instruction for filling it in, are available in paper and electronic form (see link https://www.armstat.am/am/?nid=547).</p>
	3.2 Build or enhance process components	<p>The methodological guidelines and instructions necessary for information calculation and verification of needed information are available. Input software (Microsoft Office Access) has necessary</p>

		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 monthly, quarterly and annual basis in accordance with the Annual Statistical Program.
	3.4 Configure workflows	The derivation of statistical product is carried out by the following successive stages: <ol style="list-style-type: none"> 1. collection of information, 2. arithmetic and logical checks and adjustments, 3. information input through the pre designed input software (Microsoft Office Access software), 4. comparison of obtained summary data with the corresponding time series, 5. dissemination of information in paper or electronic forms through the yearbooks, information reports, statistical handbooks, as well as through the official response letters upon the official requests.
	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 indicators in the statistical reporting form, the field examination of the latter is implemented to reveal the opportunities of the respondents to provide with the indicators, as well as to test their understanding of it.
	3.7 Finalize production system	The composition of methodological clarifications on the completion of indicators available in statistical reporting form and provision to the statistical information providers (respondents) is carried out. The consents of information providers on indicators got during the workshops are summarized.
4.Collection		
	4.1 Create frame and select sample	The information general population is formed in the result of widespread observation of data collection that includes the statistical data collected from all customer organizations implementing construction.
	4.2 Set up	In order to organize the collection of statistical data, the formation

	collection	<p>of order on printing of relevant statistical reporting form and in case of need of the instruction of filling in it, their printing and distribution to the relevant organizations is implemented according to the number of organizations previously known as subject to observation. At the same time the statistical reporting forms and the instruction of filling them are accessible on the Armstat official website (see the link: https://www.armstat.am/am/?nid=547). The required network resources for the report collection in the electronic form are in place.</p> <p>The responsible staff of structural and territorial units has relevant knowledge and skills for the organization of the statistical information collection process.</p>
	4.3 Run collection	Statistical data collection is carried out by the Armstat territorial units, relevant units of regional departments by hand, mail and electronic system means according to the Resolution of RA State Council on Statistics No 05-N on the “Approval of the Procedure of the collection of Statistical Data” dated 20 June 2016.
	4.4 Finalize collection	The collected information, after being arithmetically and logically 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	-
	5.2 Classify and code	The coding process by the main type of activity of the organization according to the classification of economic activities (NACE Rev. 2), as well as the encoding of marz units in accordance with a predetermined order is implemented.
	5.3 Review and validate	The checking of provided incomplete or corrupted information is carried out, the indicators are subject to arithmetical and logical checks, based on them and in case of need, the appropriate adjustments are carried out through the contact with information providers
	5.4 Edit and impute	The completion of the missing data is implemented using the data on the indicator presented for the previous period in case of the lack of

		the alternative information on them. The completed data in case of being available for the next periods is subject to adjustment.
	5.5 Derive new variables and units	In order to ensure the completeness in calculation, the evaluation of non observed (non registered) field is implemented using the results of households and individual housing construction' sample surveys.
	5.6 Calculate weights	As the information provided by the customer organizations implementing construction ensures the statistical completeness of this sphere, therefore there is no need to calculate additional weights.
	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	Often, the calculation of primary indicators that are subject to further adjustment is done due to the necessity to obtain operative statistical data. The first published data is classified as preliminary. The changes in the published data are guided by explanatory notes. The final data are presented in annual publications.
6. Analyze		
	6.1. Prepare draft outputs	The creation of indicator groups, as well as time series of statistical indicators is implemented based on obtained statistical summary data. Indices of construction production are calculated on a monthly, quarterly and annual basis and reporting month to the previous year's month, reporting quarter to the previous year's quarter, reporting year is compared to the previous year. The received indicators are also used to present the summary information on organizations determined by the employees' number, as well as to create the time series of indicators. So, the construction production indicator is calculated by the ratio of construction volumes to the reporting and base period.
	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 the statistical reporting form.

	6.3 Interpret and explain of outputs	The logical analysis of the received summary indicators is carried out taking into account the impact of various phenomena taking place in the economy on the given sphere.
	6.4 Apply disclosure control	The confidentiality of statistical indicators (not containing individual (personal) data) that is subject to publication, as well as requested by the users of statistical information is strictly followed according to the Law on Official Statistics and the Resolution of the SCS No 53 " Approval of the Order on Protection of Statistical Confidentiality" dated 25 June 2001, and only summarized data are provided (see: https://www.armstat.am/file/doc/99454478.pdf).
	6.5 Finalize outputs	Before the dissemination of summary information, the analysis of the summary indicators of the construction sphere by the time series is conducted.
<i>7. Dissemination</i>		
	7.1 Update output	The available time series are updated every month setting the indicators on construction sphere and «Armstat.Bank» is also updated every year - (see http://armstatbank.am) in the construction by Yerevan and marzes.
	7.2 Produce dissemination products	<p>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.</p> <p>The information on the statistical indicators is published in Armenian, Russian, English through the yearbooks, statistical handbooks and monthly informational reports.</p> <ul style="list-style-type: none"> • Statistical Yearbook of Armenia https://www.armstat.am/am/?nid=586 • RA marzes and Yerevan city by figures https://www.armstat.am/am/?nid=80&id=2203 • Armenia in figures (annual) https://www.armstat.am/am/?nid=80&id=2219 • “Socio-Economic Situation of the Republic of Armenia” (monthly) https://www.armstat.am/am/?nid=82 • Construction in the Republic of Armenia (quarterly)

		https://www.armstat.am/am/?nid=81&id=2208
	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. In case of the changes and adjustments made in the indicators provided by the providers of statistical information the indicators already published by the Armstat are also being changed and adjusted correspondingly.
	7.4 Promote dissemination products	Various information presented on the Armstat official website (indicators, metadata, notifications, news about the sphere, micro-data, etc.) is not only a statistical tool, but also dissemination tool of information on the Armstat activity, which promotes the effectiveness of the sector's activities.
	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 and submitted to them following the principle of confidentiality of statistical information.
8.Evaluation		
	8.1 Gather evaluation input	The collection of data from the same organizations different reporting forms is implemented.
	8.2 Conduct evaluation	The comparisons of data on the same organizations received by the same source included in the different reporting forms are implemented from the point of view of the quality management of statistical indicators. The relevant information provided by the RA Ministry of Finance on state budget expenditures on articles related to the "Construction of buildings and structures", "Current and Capital repair of buildings" by separate state bodies serves as informational base.
	8.3 Agree an action plan	In the case of detection of discrepancies between the information received from different sources on the same indicator being compared, the revealing of the possible reasons is carried out, and the corresponding final adjustment is implemented based on it. Forming of action plan based on evaluation report. Implementation of monitoring on impact of these actions.