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## **QUALITY REPORT 2018**

### **Construction work**

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## **Content:**

<b>1. Introduction – Basic information about the survey</b> .....	<b>1</b>
<b>1.1 Purpose, goal and subject of the survey</b> .....	<b>1</b>
<b>1.2 Legal basis</b> .....	<b>1</b>
<b>1.3 Statistical units</b> .....	<b>1</b>
<b>1.4 Coverage and scope of survey</b> .....	<b>1</b>
1.4.1 Sectors.....	1
1.4.2 Statistical population.....	1
<b>1.5 Referent geographical area</b> .....	<b>2</b>
<b>1.6 Concepts and definitions</b> .....	<b>2</b>
<b>1.7 Classifications</b> .....	<b>2</b>
<b>1.8 Frequency of data collection</b> .....	<b>2</b>
<b>1.9 Frequency of data dissemination</b> .....	<b>2</b>
<b>1.10 Methodology</b> .....	<b>2</b>
<b>1.11 Base period</b> .....	<b>2</b>
<b>1.12 Unit of measure</b> .....	<b>2</b>
<b>1.13 Source of data</b> .....	<b>2</b>
<b>2. Relevance – Data users</b> .....	<b>2</b>
<b>2.1 User needs</b> .....	<b>2</b>
<b>2.2 User satisfaction</b> .....	<b>3</b>
<b>3. Accuracy and reliability</b> .....	<b>3</b>
<b>3.1 Accuracy – Overall remark</b> .....	<b>3</b>
<b>3.2 Sampling error</b> .....	<b>3</b>
Indicators of sampling error .....	3
<b>3.3 Non-sampling error</b> .....	<b>3</b>
3.3.1 Coverage error .....	3
Indicators of coverage error (A2) .....	3
3.3.2 Error of measurement .....	4
<b>3.4 Seasonal adjustment</b> .....	<b>4</b>
<b>3.5 Data revision</b> .....	<b>4</b>
3.5.1 Data revision policy.....	4
3.5.2 Data revision practice .....	4
3.5.3 Data revision - average size (A6) .....	4
<b>4. Timeliness and punctuality</b> .....	<b>4</b>
<b>4.1 Timeliness</b> .....	<b>4</b>
<b>4.2 Punctuality</b> .....	<b>5</b>
<b>5. Availability and clarity</b> .....	<b>5</b>
<b>5.1 Statistical Release Calendar</b> .....	<b>5</b>
<b>5.2 Access the data Release Calendar</b> .....	<b>5</b>
<b>5.3 Releases</b> .....	<b>5</b>
<b>5.4 Publication</b> .....	<b>5</b>
<b>5.5 On-line databas</b> .....	<b>6</b>
<b>5.6 Access to micro data</b> .....	<b>6</b>
<b>5.7 Metadata occupancy</b> .....	<b>6</b>
<b>6. Comparability</b> .....	<b>6</b>
<b>6.1 Comparability – geographical</b> .....	<b>6</b>
<b>6.2 Comparability - over time</b> .....	<b>6</b>

## **1. Introduction – Basic information about the survey**

### **1.1 Purpose, goal and subject of the survey**

The data collected in this survey are the result of the work of construction enterprises and natural persons in the territory of Montenegro. They allow monitoring of construction production, reviewing the size and structure of the investments in buildings and engaged workforce. The aim of the research on the construction work is to provide the results of construction activities by type of building. Under the buildings built by individual owners include the buildings that were built by the owners of their own labor, with the help of hired labor, or engaging in independent private contractors and craftsmen.

### **1.2 Legal basis**

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12) defines provisions for collection, processing, and dissemination of data. The Law provides to the Statistical Office clear and wide legal powers to collect and access the data necessary for the implementation of Programme and Annual Plan. The Law gives a priority to the use of administrative data and right of access to individual data that are a result of survey of other official statistical producers. As an annex to legal provisions, Statistical Office has signed several memoranda on cooperation with administrative data providers.

### **1.3 Statistical units**

Value of finalised construction works covers all used building material and workloads whether they are paid or not. Data on value of construction works done relate to works performed during reference year on finished and unfinished constructions. Value of works performed by contractors – legal entities are given on the basis of annual compilations, while the value of works performed by individuals is based on available documentation or estimation. Works performed on constructions are shown according to the construction sites and not by the contractor's main office. Dwelling is any residential construction unit intended for habitation, consisting of one or more rooms with necessary auxiliary spaces (such as: kitchen, bathroom, lobby, pantry, toilet, etc.) or without auxiliary spaces and with one or more separate entries. Floor area is useful floor area of dwelling, measured by the inner walls of dwelling.

### **1.4 Coverage and scope of survey**

#### **1.4.1 Sectors**

Reporting units of survey on construction activities are: - enterprises with 5 and more employees which are registered in sector F – construction (area 41, 42, 43) according to the classification NACE Rev.2 and - enterprises (KAU) which are not registered in sector F, but whose local units perform the construction works. Reporting units in the buildings constructed by individual owners are: buildings that were built by the owners of their own labor, with the help of labor from outside, or engaging in independent private contractors and craftsmen.

#### **1.4.2 Statistical population**

The sample frame was formed on the basis of the data from Statistical Business Register, which includes all active business entities from the area of construction as well as KAU with secondary activity in construction sector. The sample includes all reporting units from the class 2 and 3, while reporting units from class 1 is selected by random sample. The survey on buildings built by individual owners include all buildings, new buildings and extensions, regardless of whether the competent authority has issued a permit for construction, namely: buildings with apartments (exclusively residential, predominantly residential and nonresidential predominantly) and buildings without dwellings, but they are built to perform activities of catering, trade, crafts and agriculture. Apart from these, including the garage and if they are built as separate structures, as well as a weekend home. This report shall include the flats that were built by adapting non-residential space.

## 1.5 Referent geographical area

Data are refers on the total territory of Montenegro.

## 1.6 Concepts and definitions

The variables of this survey are: data on construction works, type of works on the building, value of completed construction works during the year, value of all works on the completed building from beginning to end of construction, building data, gross area and gross volume of the building, number and area of completed and unfinished apartments. The value of construction works is displayed at current prices and includes all built-in construction materials and consumed work regardless of whether the work and material were paid or not. Data on the value of performed works refer to works carried out in the reporting year on completed and unfinished buildings. A dwelling is considered as any building-related unit intended for housing consisting of one or more rooms with appropriate auxiliary rooms. The area of the apartment (m<sup>2</sup>) is the useful floor area of the apartment measured within the walls of the apartment.

## 1.7 Classifications

NACE Rev. 2

## 1.8 Frequency of data collection

Annually

## 1.9 Frequency of data dissemination

This survey is disseminated annually.

## 1.10 Methodology

A statement of methodology is available on website:

[http://monstat.org/userfiles/file/gradjevinarstvo/medodologije/Construction%20works\\_Methodology.pdf](http://monstat.org/userfiles/file/gradjevinarstvo/medodologije/Construction%20works_Methodology.pdf)

## 1.11 Base period

Reference year

## 1.12 Unit of measure

Data are expressed in thousand Eur

## 1.13 Source of data

The source of the data for this survey is a questionnaire and reporting units are enterprises, ie performers of works that are direct signatories of the contract with the investor. Research on buildings built under the direction of individual owners includes all buildings of new construction and upgrading, regardless of whether the competent authority has issued a building permit.

## 2. Relevance – Data users

### 2.1 User needs

International users:

- Eurostat,
- World Bank,
- UN organizations,
- International Monetary Fund

National users:

- Ministries and other public administration bodies,
- Local government, and
- Other local government bodies.
- Central bank,
- Non-governmental organizations,
- Students,
- Researchers,
- Media.

## **2.2 User satisfaction**

The Statistical Office has adopted the Quality Management Strategy, the Guidebook to the Implementation of the Quality Management Strategy, as well as the Plan for the Implementation of the Quality Policy. In order to measure the degree to which fulfills obligations towards users and within the new quality policy, the Statistical Office conducted User satisfaction survey. Data collection was carried out through a web survey, in the period from 1 September to 20 October, 2017. The results of the survey are available on the Statistical Office website, link: <http://monstat.org/userfiles/file/KVALITET/Construction%20works.pdf>

## **3. Accuracy and reliability**

### **3.1 Accuracy – Overall remark**

The results of survey of construction work are based on a sample of reporting units and are subject to the usual types of errors associated with sampling techniques as well as non-sampling errors, measurement errors, processing errors, and non-response.

### **3.2 Sampling error**

Survey of construction work is done on a sample basis. Included are all enterprises and KAU with 5 and more employees who are registered in sector F according to the classification NACE Rev.2. The reporting units from class 1 are selected through random sampling method so it is logical that there is an error during the random sampling. Reporting units from the class 2 and 3 (more than 50 employees) is full coverage.

#### *Indicators of sampling error*

Sample error is regularly calculated and on average it was 0.01 during 2018. The coefficient of variation was also the same.

### **3.3 Non-sampling error**

Non-sampling errors are tied to other errors that are not related to the sample. Non-sampling errors include: coverage errors, measurement errors, processing errors, and non-response errors.

#### **3.3.1 Coverage error**

Coverage error is the divergence between the frame population and the target population. The coverage errors include: over – coverage and under – coverage.

#### *Indicators of coverage error (A2)*

Over-coverage is appearing when a company which is registered in sector F (area which is the subject of observation) delivered information to deal with the some other activity, not construction, which means it should not have been found in the frame of sample.

### **3.3.2 Error of measurement**

Measurement errors are errors that occur during data collection and cause recorded values of variables to be different from the true ones. Indirect analysis based on the results on editing phase is implemented for correction.

### **3.3.3 Non response error**

Non-response errors occur when the survey fails to get response to one, or possibly to all questions of the survey. Non - response errors include: 1. item non response and 2. unit non response.

Unresponsive unit rate (A3)

The unit non response rate is calculated as the ratio of the number of units which did not responded to the total number of eligible units.

Non response rate

The item non response rate is calculated as the ratio of the eligible units which have not responded to a particular item and the in-scope units that are required to respond to that particular item. Average item non response rate was about 8%

### **3.3.4 Error processing the data**

The collected data goes through a series of processes before the final grade: encryption, input, editing, imputation, weighting, tabulation, etc. Errors arising in these phases are called processing errors.

Imputation rate

Not available

## **3.4 Seasonal adjustment**

Not relevant

## **3.5 Data revision**

### **3.5.1 Data revision policy**

Statistical Office has adopted the revision policy and it is available on the website <http://www.monstat.org/userfiles/file/o%20nama/2017/Revision%20policy.pdf>

### **3.5.2 Data revision practice**

Survey of construction work uses regular revisions. Large and unplanned revisions are only used in the specific cases defined by the revision policy.

### **3.5.3 Data revision - average size (A6)**

Not relevant.

## **4. Timeliness and punctuality**

### **4.1 Timeliness**

The data are published 6 months after the end of the reference period.

*Time lag of the first results*

The number of days (or weeks or months) from the last day of the reference period to the day of publication of first results:  $T1 = d_{\text{first}} - d_{\text{ref}}$ ,  $T1 = 35$  days,  $d_{\text{first}}$  - release date of first results;  $d_{\text{ref}}$  - last day (date) of the reference period of the statistics. Deadlines for balance of coal data during 2018 are published according to the Statistical Release Calendar.

### *Time lag of the final results*

The number of days (or weeks or months) from the last day of the reference period to the day of publication of complete and final results. Data for balance of electricity are published 6 month after the end of the reference period in accordance with release calendar.

## **4.2 Punctuality**

Deadlines for publishing have been complied in accordance with the Statistical Release Calendar.

## **5. Availability and clarity**

### **5.1 Statistical Release Calendar**

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12) stipulates that official statistical producers prepare, update, and publish Statistical Release Calendar. It is published on the website of Statistical Office not later than 20 December for the next year, for all official statistical producers that includes date of releasing statistical data. Any change in date of releasing in the Calendar is published in advance in accordance with the Procedure on Unplanned Revisions.

### **5.2 Access the data Release Calendar**

<http://monstat.org/userfiles/file/o%20nama/2018/Kalendar%20objavljivanja%20statistickih%20podataka%20Zavoda%20za%20statistiku%20-%20ENGg.pdf>

### **5.3 Releases**

Data are available on the website, in a press release and in Statistical Yearbook.

### **5.4 Publication**

Statistical Office publishes the following regular publications:

1. Statistical Yearbook,
2. Montenegro in figures,
3. Monthly statistical review.

In addition to the above regular ones, Statistical Office publishes also additionally publications. Some of the most important additional publications are as it follows:

1. Women and Men in Montenegro,
2. The most often used statistical data

All publication published by Statistical Office are available at the following link:

<http://monstat.org/eng/publikacije.php>

## 5.5 On-line databas

<http://monstat.org/eng/pxweb.php>

## 5.6 Access to micro data

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12) regulates rules under which external users can obtain an access to individual data for needs of research. Article 58 defines types of scientific and research organizations that can obtain such data. Providing individual data without identifier is possible only upon a written request of scientific and research institutions, with purpose of performing scientific and research activities as well as international statistical organizations and statistical producers from other countries. Research entity signs the agreement with Statistical Office, and it signs the statement on respecting the confidentiality principle. Official statistical producers keeps a separate records on users and purpose of using the statistical data given to these users.

## 5.7 Metadata occupancy

The ratio of the number of metadata elements provided to the total number of metadata elements applicable. For these survey, the metadata fill rate is 100%.

# 6. Comparability

## 6.1 Comparability – geographical

Not relevant

## 6.2 Comparability - over time

Not relevant

*Time comparability indicator*

Not relevant