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## **QUALITY REPORT 2017**

### **Consumption of building material, electricity and gas**

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

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

The main objective of this study is to provide information about changes in the level and structure and the price of building materials, primarily in companies from the field of construction, and then in the companies where construction is not a core business.

### **1.2 Legal basics**

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 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**

Observation units are enterprises in the field of civil engineering and construction company which is not the main activity and for this purpose use the material for construction of facilities for maintenance, repair and operation of machinery and rolling stock, and firewood for stationery and other supplies.

### **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 and for this purpose the material: 1. For the construction of buildings; 2. For maintenance and repair of mechanical and vehicle fleet; 3. The operation of machinery and rolling stock, and firewood; 4. Office and other auxiliary materials.

#### **1.4.2 Statistical population**

The 2017 sample comprised 104 enterprises with primary and secondary activity in the construction.

### **1.5 Referent geographical area**

Montenegro.

### **1.6 Concepts and definitions**

The subject of survey are: the amount of embedded construction material and fuel, the value of the built construction material and fuel, the quantity of stocks at the end of the reporting year, the average price of used material. The amount of embedded materials and stocks are included in the unit of measure that is most frequently applied in practice.

### **1.7 Classifications**

NACE Rev. 2

## 1.8 Frequency of data collection

Annually

## 1.9 Frequency of data dissemination

Annually according to the Statistical Release Calendar.

## 1.10 Methodology

A statement of methodology is available on website :

<https://www.monstat.org/userfiles/file/gradjevinarstvo/medodologije/CONSUMPTION%20OF%20BUOLDING%20MATERIAL.pdf>

## 1.11 Base period

Reference year

## 1.12 Unit of measure

Thousand EUR

## 1.13 Source of data

Data are collected on a sample of reporting units including Statistical Business Register (SBR) in MONSTAT which are registered according to sector F by NACE Rev.2 Classification.

## 1.14 Method of collection data

Data are collected through questionnaires (by post, email or fax).

## 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

With purpose of determining user satisfaction with quality data and defining their needs, Statistical Office for the first time carried out the User Satisfaction Survey in 2017. The survey was done from 1 September to 20 October. The survey link was sent to users that sent request to the official email address in period 2013-2017. Additionally, the questionnaire is put on the website of Statistical Office. The processing of data obtained by the mentioned survey is ongoing, while final result are ready until the end of year, both for total users satisfaction, and by domains.

### **3. Accuracy and reliability**

#### **3.1 Accuracy – Overall**

The results of quarterly survey of construction activity 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 on consumption of construction material and fuel 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: 50 employees is full coverage.

##### *Indicators of sampling error*

Sampling error is regularly calculated and on average it was 0,001% in 2017 Coefficient of variance is 0.01.

#### **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*

Over - coverage is appearing when a company which is registered in sector F deliver information to deal with the some other activity (not construction), and in case when the company is closed. Under - coverage can cause an underestimation, because those units that have remained outside the frame can affect the final result. For this reason, the real impact assessment units which are not included in the coverage. The under - coverage includes units engaged in construction, and are registered in other activities, as well as those companies which are registered in the course of the observed year, and beyond the frame for the choosing of the 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: unit non response and item non response.

##### *Unresponsive unit rate*

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 in 2016 was about 7%.

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

Not available

#### *Imputation rate*

Not available

### **3.4 Seasonal adjustment**

Not available

### **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**

In survey of consumption of building material, electricity and gas 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)**

## **4. Timeliness and punctuality**

### **4.1 Timeliness**

The data are published 9 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 2017 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. These data are published 9 month after the end of the reference period in accordance with release calendar.

### **4.2 Punctuality**

Deadlines for publication of data are met 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/2017/Kalendar\\_2017\\_eng\\_Monstat.pdf](http://monstat.org/userfiles/file/o%20nama/2017/Kalendar_2017_eng_Monstat.pdf)

### 5.3 Releases

Data are available on the website and press release:

<https://www.monstat.org/eng/page.php?id=510&pageid=35>

### 5.4 Publication

Statistical Office publishes the following regular publications:

1. Monthly Statistical Review,
2. Statistical Yearbook,
3. Montenegro in Numbers,
4. Annual Statistics of Transport, Storage and Connections,
5. Number and Structure of Business Entities.

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. Children in Montenegro,
3. The most often used statistical data.

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

<https://www.monstat.org/eng/publikacije.php?id=100>

### 5.5 On-line database

<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 Spatial comparability**

The survey is conducted for national purposes.

### **6.2 Time comparability**

Not relevant

Data on consumption of building material, electricity and gas has been produced more than 30 years.

#### *Time comparability indicator*

Data on consumption of building material, electricity and gas has are available since 2010 on MONSTAT web site and they are comparable over time.