ANNUAL STATISTICAL SURVEY (ON MINES, QUARRIES AND SALTERNS)

The Annual Statistical Survey is carried out according to the regulation 58/97(E.U) for structural statistics.

The survey is carried out in the whole Country and covers by cencus all mining and quarrying establishments of the branches 10-14 (ISIC 91), except those of the first (average annual employement 0,01-4,99 persons) and second (average annual employement 5-9,99 persons) stratum of branches:

141.1 "Quarrying of marbles and other stones for construction and

142.1 " Operation of gravel and sand pits. Extraction or surface receipt of sand",

where a sample survey is carried out, due to the great number of establishments belonging to these strata.

Table 1. Includes the number of establishemnts, the remunerated employment, the remunerations of persons employed and the gross production value for each 4-digit level economic activity branch in national level.

Table 2. Includes the value of consumption, the value added and the gross investements for each 4-digit level economic activity branch in national level.

Table 3. Includes the production of principal mining and quarrying products for the last ten years.

Basic concepts and definitions.

REMUNERATED EMPLOYEMENT: Includes the total of remunerated employees.

LABOUR REMUNERATIONS: Includes the total of salaries and wages.

GROSS PRODUCTION VALUE: Includes the production value of products, the income from services to third parties and rest operative income.

VALUE OF CONSUMPTION: Includes the value of consumed auxiliary (and probably raw) material, fuel, electric energy, etc.

VALUE ADDED: The gross production value minus expence value of consumption.

GROSS INVESTMENTS: Includes the investments effected during the reference year.

Analytical results of the Annual Statistical Survey are presentend in detailed tables, which are included in the annual publications of this survey.

A methodological note describing the sampling design of the survey follows.

Annual survey on mines, pit-quarries and salterns

TYPE

Census survey for all classes of NACE Rev.1.1, with the exception of establishments that engage less than 10 persons and belong to classes 14.11 (marble and other stone quarries used in building) and 14.21 (gravel and sand quarries, extraction or surface collection of sand) that are surveyed on a sample basis.

The sampling method used is the single stratified random sampling. The establishments surveyed on a sample basis are stratified as following:
I)   Stratum 1: 1-4 employees,
II)   Stratum 2: 5-9 employees.

The sampling fraction is about 27%.

Survey characteristics estimation

   a. *Symbols*

Defining with index *i* the selection order of an enterprise from the sampling frame in the stratum *h* and symbolizing with the *y* one of the survey characteristics, we can define the following:

y_{hi} : The value of the survey characteristic *y* of the enterprise of order *i* in the stratum *h*

Y_h : The sum of the values of the characteristic *y* for all enterprises falling into the survey and belonging to the stratum *h*

Y : The sum of the values of the characteristic *y* for all enterprises under the survey of the stratum *h*. That is: $Y = \sum_h Y_{hi}$

N_h : The number of all enterprises falling into the survey and belonging to the stratum *h*

n_h : The sample size in the stratum *h*

m_h : The number of respondent units in the stratum *h*

r_h : Response rate in the stratum *h* ($r_h = \dfrac{m_h}{n_h}$)

w_{hi} : The extrapolation factor of the enterprise of order *i* belonging to the stratum

h, ($w_{hi} = 1/$(Probability of selected unit *i* in stratum *h*) $\cdot r^{-1} = \dfrac{N_h}{n_h} \cdot \dfrac{n_h}{m_h} = \dfrac{N_h}{m_h}$)

   b. *Estimation process*

The estimation of Y_h and Y is given by the following formulas:

$$\widehat{Y}_h = \frac{N_h}{m_h} \sum_{i=1}^{m_h} y_{hi}$$

$$\widehat{Y} = \sum_h \widehat{Y}_h$$

c. *Variance estimation*

The variance estimation of $\widehat{Y}_h$ and $\widehat{Y}$ is given by:

$$V(\widehat{Y}_h) = \frac{N_h(N_h - m_h)}{m_h} S_h^2,$$

Where:

$$S_h^2 = \frac{1}{m_h - 1}\left[\sum_{i=1}^{m_h} y_{hi}^2 - \frac{\left(\sum_{i=1}^{m_h} y_{hi}\right)^2}{m_h}\right],$$

$$V(\widehat{Y}) = \sum_h V(\widehat{Y}_h)$$

The coefficient of variation (%) of total estimation $\widehat{Y}$ is given by:

$$CV(\widehat{Y}) = \frac{\sqrt{V(\widehat{Y})}}{\widehat{Y}} * 100$$