AGRICULTURAL STATISTICS DATABASE - SURVEY ON DATA AND METHODOLOGY IN FYR MACEDONIA

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The project aims to establish a network of experts involved in agricultural policy analysis and rural development in the 12 New Member States and in 8 Candidate and Pre Candidate Countries. More information on the project can be found at www.agripolicy.net.
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1 Main characteristics and changes in the agricultural statistic system

The State Statistical Office (SSO) is the head provider of the official statistics of the Republic of Macedonia. It disseminates information on agriculture and other related areas periodically (monthly, quarterly, semi-annually or annually) through its web page (www.stat.gov.mk) and printed reports (Statistical Yearbooks, Statistical Reviews, News Releases). Statistical data are gathered on the basis of surveys conducted by SSO, and from data prepared by other institutions participating in the statistical system of Macedonia, mainly the Geographical Institute, Customs Administration, National Extension Agency (NEA), Ministry of Finance, National Bank, Institute of Water Management and some others. Statistical Yearbook is prepared both on Macedonian and English language and is available on paper and CD Rom.

In 2000, SSO made a revision of GDP calculations by implementing principles of National Accounts of the EUROSTAT. In the framework of this revision calculations of GDP by production and expenditure method has been improved as well as estimations of exhaustiveness in the economy, new methods for calculation of volume indices and price deflators has been used, data from Labour Force Survey has been integrated in the calculation of GDP and the National Classification of Economic Activities (NACE) has been applied. The data on GDP is published yearly in Statistical Review and available also in News Releases, which are issued quarterly.

Calculations of GDP are made on the level of whole economy, on the level of institutional sectors and sub-sectors, and by the size of the enterprises. There has been no data available at a regional level or separately for urban and rural areas yet. However, GDP on a regional level is in the process of preparation, but it is not precisely determined when this data will be published.

The trade statistics is collected by the Customs Administration of the Republic of Macedonia through Single Administrative Documents on a monthly basis. The State Statistical Office takes over reviewed data and presents it according to the National Classification of Economic Activities (NKD 2002) based on the European classification NACE. Data by activities are prepared using correlation tables between the Nomenclature of Customs Tariffs and the corresponding NKD 2002 classes. Since 2002, the Nomenclature of Customs Tariffs has been established at a 10-digit level and harmonised with the EU classification. Data on agri-food imports and exports by commodity group are available in SSO library in the News Releases at a monthly basis and in Statistical Yearbook on the yearly basis.

Data on agriculture is a result of statistical surveys in the field of agriculture, hunting and forestry. Agricultural statistics records data on agricultural companies and cooperatives, as well as data on individual agricultural holdings, separately presented. Beside SSO, sources of agricultural data are Ministry of Agriculture, Fishery and Water Economy (MAFWE), Paying Agency, Faculty of Agricultural Sciences and Food, etc.

In 2007 the Agricultural Census was carried out as a specific statistical operation, for the first time in about 40 years. The Census from 1994 was a partial one, not conducted on the whole country level. The methodology, definitions and standards for Census 2007 were harmonized with the statistical practice in Macedonia, the recommendations of EUROSTAT and the FAO. The Census covered individual agricultural holdings, households that own forest or fish ponds, agricultural enterprises and cooperatives as well as other units which perform activities in this sector (agricultural schools, borstals, agricultural scientific institutes, religious
the concept of complete coverage. The list of legal entities was taken from the Central Register and data collected and delivered by post.

Agricultural Census 2007 brings data on land area and use, number of livestock, the labour force in agriculture, agricultural machines and equipment, as well as on manure storage and other facilities. The data are presented on national and on regional level, according to the Nomenclature of Territorial Units for Statistics (NUTS) from 2007. However, census data is published for individual family farms (households) only (without legal entities) and therefore does not give a whole picture on the structure of agriculture.

Crop statistics provides data on field crops, orchards and vineyards area and production on the level of the country and by municipalities. Statistical review with these data is issued annually. Data on crop production of agricultural enterprises and cooperatives is collected by regular statistical surveys with total coverage. The reported data is based on business accounts and other evidence. Data from private sector is collected by estimation, which is done by statistical estimators. The estimators are mainly agricultural experts and progressive farmers acquainted with the local conditions and trained for the purpose. SSO is in permanent contact with them. The estimators perform their work on the basis of the last cadastral data, previous estimates and their own knowledge, as well as other sources. The methodology used for collection, processing and publication of crop statistics is harmonised with international standards in a significant degree. However, further up-date of the method for data collection for the individual sector and establishment of the Farm Register is still needed.

Besides crop production some data on domestic processing of tomato, potato, grapes, apples and other crops is available. However, this data is not included in the crop production statistics review. In the Statistical Yearbook, data on processed tobacco, sugar, vegetable oil and food are stated in the industry subsection. Separate review on industry is issued every fifth year and includes indices for industrial production and number of employees.

Data on livestock number and production is collected by the survey method for private agricultural holdings and by regular annual reports for agricultural companies, enterprises and cooperatives. SSO check the data by comparing it with the data tracked in the Veterinary Register. The survey on the number of livestock is conducted using two-stage sample covering about 4% of households which in Population Census 2002 declared agricultural activity. Livestock statistics regularly provides data on cattle, pigs, sheep, poultry, horses and beehives number and the production of meat, milk, wool, eggs and honey. For cattle, pigs and sheep data on slaughtered animals are also available. However, there are no data as regards different uses of livestock, such as farm consumption, direct selling, etc. Data is published in News Releases as well as in Statistical Yearbook. Data on livestock number, breeds and milk production can be found also in the Institute of Livestock.

Data on average agricultural producer prices are collected by monthly surveys from legal entities separately for sells from own production and for purchases from private family farms. However, only the value and the quantity of sold and purchased agricultural products is published. The price is calculated as unit value by dividing the value with the quantity. Data are available on a monthly and yearly basis.

The market prices for agricultural products are monitored through three types of survey following an established methodology. Data is gathered 4 to 5 times per month on selected marketplaces, and after processing, presented on a monthly basis. Beside from SSO, data on market and wholesale prices and prices on green and livestock markets are available from Market Information System in Agriculture, on the weakly or monthly basis.
Agricultural output and input price indices are available since 2004. Price indices are calculated according to EUROSTAT methodology and published in News Releases on a monthly basis and in Statistical Yearbook on yearly basis.

The Economic Accounts for Agriculture are published in a separate Statistical Review presenting data on current accounts, accumulation accounts and labour force for a period 1998-2003. EAA are produced using methodological concepts, definitions, accounting rules and unified classifications applied by EU countries. In the course of calculations, methodological adjustments have been made taking into account available sources and specific characteristics of agriculture in Macedonia. A revision and improvements of EAA were made in the framework of a project financed by Swedish Agency for Cooperation and Development (SIDA). However, not all EAA indicators have been available so far, among them, the GAO volume indices.

Beside EAA, there are other estimations of agricultural income as well. Agricultural incomes are evidenced through Farm Monitoring System by the National Extension Agency (NEA). This system has been established five years ago and covers 450 farms. This data is going to be used for FADN which is planned to cover 600-800 farms.

SSO does not prepare supply balance sheets for agri-food products. The only data on food consumption can be found in the review of the Household Consumption published annually on the basis of Household Consumption Survey. Among others, this review contains data on quantities of main agri-food products consumed presented separately for households and per household member including data for all households in total, agricultural households, mixed households and non-agricultural households.

Regular data on agricultural input use (mineral fertilisers, electric power, fuel and lubricants, pesticides) are available for legal entities only (agricultural enterprises and cooperatives) and presented in the Statistical Yearbook on the yearly basis, while the data from the individual sector are lacking. Complete data on fertiliser use, use of pesticides and water are available only in the framework of Agricultural Census 2007.

2 Future plans for harmonisation and existing co-operation programmes in agricultural statistics

In Macedonia, a large part of agricultural statistics has already been harmonised with EU standards. SSO uses the EU regulations as a basis for improvement of its activities. In this regard, the Farm Monitoring activities are in progress, introducing the new sample for crop and animal production survey.

Agricultural Census is planned to be conducted every 10 years (next in 2017). In the period between two censuses sample structure survey is planned to be carried out every three years.

3 Use of agricultural statistics for monitoring and impacts analysis of agricultural policy

For monitoring and impacts analysis of agricultural policy, data from SSO are used as a basis for further calculations, estimations and comparisons with data collected in other institutions. However, different institutions often issue different data for the same statistical item.
The State Statistical Office has a close cooperation with the Ministry of Agriculture, Forestry and Water Economy, and provides data needed for the preparing of the reports on the situation in agriculture (green reports). The Faculty of Agricultural Sciences and Food also uses the statistical data to prepare sector studies. It can be perceived that data from SSO are used for both monitoring and impact analyses at some extent.