

AGRICULTURAL CENSUSES IN HUNGARY, 1895–2000

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The author gives a historical review of the agricultural censuses in Hungary, where the first census of such type took place in 1895. After then similar surveys were carried out in 1935, 1972, 1981 and 1991. In 2000 the Hungarian Central Statistical Office carried out again a General Agricultural Census. The aim of the 2000 census was to survey the economic structure created after the reprivatization of the landed properties, but the EU and FAO requirements would also be observed at the shaping up of the programme.

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Regular agricultural statistical data supplying in Hungary dates back to almost two hundred years. In the first half of the last century, however, the agricultural surveys covered only some key indicators of the agricultural production. The surveys conducted from 1828 covered the land sown, agricultural production and number of productive livestock. The first land register, the so-called provisional cadaster – providing the basis for subsequent land area statistics – was introduced in 1853 while the data collection relating to vineyards and vintages was introduced in 1873. These data collections referred only to certain sections of the agriculture.

At the end of the past century a growing demand emerged all over Europe for a more exhaustive and comprehensive survey of the production and state of agriculture. One could even say that the Hungarian statistical service – under the personal direction of the first head of the office *Károly Keleti* – was the first to develop the programme of an agricultural census. The implementation of this census – due to lack of financial resources at the time – took place only after *Károly Keleti*'s death.

Agricultural censuses, 1895–2000

The first detailed agricultural census was ordered by statute VIII passed in 1895. Data were collected partly by enumerators partly by census commissions under the supervision of officials of municipal authorities. The work performed was revised by the municipal boards. The survey covered every owner occupied farm. The questionnaires in

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cluded questions regarding the following: farmers' personal data, number of people working on the farm, cultivated land area by land use categories and by types of ownership, plant cultivation by sown area and yield, livestock by species, age and gender, and number of fruit trees by fruit varieties. The questionnaires contained more than five hundred questions.

Five bulky volumes were published from the census data until 1900. (The fifth volume was a register, called 'Farmer's directory'.) As soon as 20 months after the census day the most important data were published by settlements as well. Taking into account the level of development of the then existing analytical methods, the analysis of the survey results may be considered a masterwork presenting a true picture of the agricultural branch in Hungary of that period. With this census Hungary preceded the statistical offices of several countries in Western Europe.

In the period following the first World War the economic environment and structure of the country, as well as the conditions of agricultural production changed considerably compared to the conditions at the turn of the century. Consequently, the execution of another fact-finding investigation seemed to be justified. The Hungarian Central Statistical Office (HCSO) proposed as early as 1923 that an agricultural survey should be conducted. This proposal was renewed again in 1928. However, the census could not be carried out mainly because of financial difficulties.

The census was accomplished finally in 1935 when it was recommended by the International Institute of Agriculture (IIA) in Rome, the predecessor of FAO.

Aside from some details, the 1935 census, in its general scope, is highly valued to the present day. The survey revealed that in the period between the two censuses i.e. from 1895 to 1935 agriculture developed only on a modest scale in Hungary. The figures gave proof of the underdevelopment of agriculture relating to international standards and it became apparent that besides the deficiency of funds the system of land tenure was the cause of the stagnation. The census in 1935 covered the number and land area of the holdings, data on activity and production of farms, manpower supply, use of agricultural machinery, fruit-tree stock including numerous data on animal husbandry, too. In the frame of the census a special statistics on the holdings was produced focussing on the level of indebtedness of farms. The data were published in five volumes, with the first volume issued 22 months after the survey.

In 1942 there was one more attempt at surveying the state of agriculture, however, the scope of that survey was much more restricted than those of the previous ones. The census covered only the livestock, agricultural machinery and equipment. The census data could not be published because of the war, nevertheless, the most important results were published in the statistical yearbook 1943–1946.

Following the war, in conjunction with the reorganisation of the HCSO the agricultural statistical data collection system has also been restructured. Part of the data supplying became regular, or more frequent than earlier. For example, surveying the agricultural land area as well as the method and the extent of land utilization became regular. Livestock census became more frequent, one livestock census was taken annually at the beginning, later, by introducing sample surveys, the livestock was estimated four times a year. The idea of taking an overall, extensive agricultural census was also proposed. Namely, by taking an appropriate survey, it would have been reasonable to record the

situation after the land reform. However, both the required funds and the statistical organisation were lacking at that time. The population census taken in 1949 covered many agricultural data but it could not substitute an agricultural census.

At the end of the 50s, FAO requested countries to join the world agricultural census of 1960, and in view of that fact and of the growing domestic demand for information, the question of an agricultural census was put on the agenda again. Following some deliberations the census was postponed after all. However, since the investigation of certain details required prompt action, in 1959 a national stock-taking of fruit-trees was carried out, followed by a census of agricultural machinery in 1960, while in 1965 a nationwide census of vineyards was taken.

In the sixties, due to the accelerated introduction of large-scale farming, the structure of agriculture has changed substantially in Hungary. Owing to the stabilization of the accounting system, detailed and accurate statistical information became available on big estates (mechanized farming). However, the large-size state farms and agricultural co-operatives provided only a part of the agricultural production. Among the rural population, which suffered from the centrally and badly organized poor food supply and from low wages – small-scale household farming started gaining ground. Between the two sectors a well defined division of labour developed. It was deemed necessary to carry out a comprehensive agricultural census in order to reveal the situation in accordance with the real facts. In addition to our domestic needs, FAO came forward with an increasingly more pressing demand for data meeting international requirements. The Hungarian government announced in 1970 its intention of joining the world census.

The census was ordered by a Cabinet decision No 3401/1970 and a governmental decree No 2/1972 regulated its execution. In compliance with the government's decision the census took place in 1972. As the statistics already available on the production of large holdings was satisfying for the most part, only data supplementing the already existing basic information were collected (e.g. data referring to the business organisation, fragmented land area, production technologies, degree of concentration etc.). Whereas, regarding small-scale production the objective was to collect primary production data and to get an overall picture of the social aspects and infrastructure of production as well. In the case of small-scale producers the technical accomplishment of the survey included the execution of one census survey followed by eight sample surveys which were conducted on the basis of the census.

The surveys supplied information on several features of the agricultural industry which were earlier unexplored. Especially, data relating to small-scale production were surprising. It came to light that almost half of the country's population is engaged in agricultural production and also consuming the goods produced on their household plots. The social stratification demonstrated that small-scale farming can by no means be considered as an activity practised exclusively by peasants, on the contrary, all classes of the society were heavily involved in that kind of activity. The census data contributed substantially to the reformulation of the policy with respect to small-scale producers in the seventies. The census data were published in 15 volumes (one volume being published in English). The first volume appeared 7 months after the execution of the survey.

Hungary joined the world census in 1980 without debating the request, merely indicating to FAO the applying of cost-saving methods which implied narrowing down the

data collections of 1972. Besides the supplementary surveys taken of large scale agricultural holdings, the data of a census and five sample surveys relating to the small-scale producers supplied the information required. In addition to the cost-saving achieved by reducing the programme, i.e. coverage of the survey, the restriction of the sample size also resulted in considerable savings. The data of the census were published in 9 volumes, with the first volume appearing 5 months after the survey.

Taking into account the data requirements of national institutions and FAO every five years, the HCSO, in conjunction with the livestock census in 1976 and 1986, collected information also on the most important data of small-scale producers (number of holdings, agricultural land area, livestock, major data of production etc.).

The subsequent agricultural census in 1991 was ordered by a government decision dated 2 August 1990 and the execution of the census was regulated by decree No 36/1991 of 1 March 1991. The objectives of the census were realized by the harmonized accomplishment of several surveys.

Agricultural large-size holdings supplied their data within the framework of the regular annual reporting system which were supplemented with the following surveys.

In 1991:

- a)* main data on the fragmentation of the land area (June),
- b)* detailed data on commercial orchards and vineyards (June),
- c)* rearing of dam-stock and distribution by species (October).

In 1992:

- d)* costs and return from sales of crop production and animal husbandry in 1991 (March),
- e)* data on technologies of producing principal crops (March),
- f)* supplementary data on the agricultural machine stock (March),
- g)* supplementary labour data (March).

The observation of households engaged in small-scale production in 1991 was implemented by relying on three data collections.

In April 1991 a census of agricultural small-scale producers was conducted as first step in the data collection procedure. The census was well organized and took place smoothly on schedule. The population proved to be co-operative and the response rate was on the whole satisfactory.

In October 1991 the HCSO, using sampling technics, collected additional data on the performance of small-scale producers. This time the enumerators visited 70.000 data suppliers randomly selected from the directory of the census conducted in the spring of that year. At the same time a sample survey of the livestock was also taken.

Within the framework of the unified system of household surveys (ELAR), in December 1991 the census data were completed by a sample covering 30.000 households which were randomly selected relying on the data of the 1990 population census. As in previous years, some characteristic features of the households' participation in small-scale production were registered providing an overall picture of the small-scale farming conditions

and issues relating to land-property. This sample survey of households included also the agricultural production of family kitchen garden owners and small-scale producers working on household plots, which were not taken into account when the census took place.

The Office published the data of the census in 4 volumes. The first volume was issued 18 months after the survey.

The main reasons of the next-in-line Agricultural Census planned at the turn of the Millennium can be summarised in the following:

- the political changes have made probably the deepest influence on the agricultural production – the ownership has been radically changed, the main point of the production has been removed from the former large scale farms (co-operatives, state farms, agricultural specialised units) to private holdings; more or less the structure of the land-ownership has been stabilised after the termination of the privatisation process – and it is an indispensable task to prepare an inventory in order to receive a complete, well based, accurate and authentic view on the agriculture following the close of the transitional process;

- without doubts it is essential to carry out a farm structure survey in accordance with the EU-legislation;

- to carry out an Agricultural Census joined to the FAO World Census 2000.

Besides these reasons the aims of the Hungarian Central Statistical Office also were:

- satisfy the data-need of the Hungarian economic, political and scientific research institutes;

- give an opportunity to the modernisation of the agricultural statistical data-collection and recording system;

- lay the foundation of a data-collection system appropriate for the EU;

- satisfactory ensure the data-need of the EU and the FAO.

The Parliament ordered the fulfilment of the Agricultural Census 2000 in the Act XLVI. of 1999 (4 May).

All the persons with natural and legal entity as well as the organisations without legal entity in Hungary were enumerated. In case of the organisations with or without legal entity all the units carrying out agricultural activity were enumerated irrespective of their NACE classification. The organisations fulfilled their data-supply in accordance with the National Program for Statistical Data-Collection (NPSDC). In case of the natural persons the unit of the enumeration was the household.

The census had two parts: a full-scope one for all the units that carried out agricultural activities and sample surveys based on the full-scope part. The reference date of the full-scope survey was 31 March 2000, the sample surveys were carried out in the succeeding August and in December. In the frame of the full-scope survey the following characteristics were observed: identification data of the household (holding); number, gender, age and economical activity of the persons belonging to the household (holding); number and activity of the non-family labour force; size of the used land area by land use categories, by title of use and by geographical situation; the characteristics of the inten

sive land utilisation (permanent crops, glass houses, plastic covers, etc.); the livestock kept on the holding by sort, gender and age; the data of agricultural machinery, equipment and buildings and the non-agricultural activities.

The main subjects of the sample survey on crop products were: the sown area of the field and horticultural crops, the yield production by crops, the area of the fruit tree orchards and the vineyards (wine and table grapes), number of fruit trees by species, area and yield production of the berry plantations, characteristics of the production under cover (area, yield production), the main agro-technical characteristics (soil-management, plant protection, irrigation, organic production).

The main themes of the livestock and livestock products sample survey are: livestock by sort, variety, age and gender; data on propagation (increase, change of stock); volume of the production of the livestock products and the keeping technology.

Concerning the agricultural machinery, equipment and buildings the most important technical characteristics were observed in the sample survey. At the same time this observation is the part of the survey on fixed assets of the entire national economy.

The role of FAO in agricultural censuses

Since Hungary is a FAO member, except for the period between 1953-1968, FAO has been playing for decades a decisive role in developing the programs of agricultural censuses.

The Agricultural World Census at this millennium is the eighth in the series of programs recurring every ten years. The first and the second programs were organized by the IIA in Rome in 1930 and 1940, respectively. Following the dissolution of IIA in 1946, the next six census programs in 1950, 1960, 1970, 1980, 1990 and 2000 were and continue to be supported by FAO through giving professional advice.

The recommended frequency of world censuses is once in every ten years, however, in developed countries, furthermore in countries where changes are rather frequent, it is recommended to carry out censuses in every five years.

The agricultural world censuses cannot be interpreted so that the required surveys are simultaneously taken in the same year in every country. The participating countries were requested in the 1930 Programme to take their national agricultural censuses as follows: countries lying in the northern hemisphere in 1929 and those in the southern hemisphere to accomplish it in 1930. The same request was made in 1940 as well. Nevertheless, the countries concerned could not at once fulfil this requirement. The national statistical censuses of the 1980 Programme, for example, were accomplished between 1976–1985.

FAO's ambition is, that countries should provide their census data for a year as close as possible to the millennium.

Striving for economy is another goal. In general, there is a minimum and a maximum programme drawn up for the countries, furthermore, their attention is called for investigating their national peculiarities. The execution of the maximum programme is recommended for more developed countries. (The programme implemented in Hungary in 1972 essentially satisfied the requirements of the maximum programme.)

All programmes formulate a new aspect, different from the previous ones. Accordingly, the 2000 Programme also includes some new elements. For example, in the past ten

years, societies' and governments' interest in environmental protection has markedly increased. Therefore census of the year 2000 is also making an attempt to extend the scope of observation to some new aspects relating to environmental protection. In the course of previous censuses some data have already been collected referring to environmental protection (e.g. land use of the holding etc.), however, the program of 2000 recommends the investigation of additional topics on environmental protection. Another new subject for investigation is the goal of production. Do households engaged in agricultural activities produce primarily for own consumption or for sale? Closely attached to this set of questions is also the inquiry about demographic characteristics (e.g. family status and educational level of the persons belonging to the household etc.). The role played by women in agricultural production is recommended as subject for examination and analysis at the millennium. The reason for this is that in many countries single elderly women are often engaged in 'agricultural activities' as plot holders for supplementary income. The quality of the arable land, agricultural techniques and organic farming are among the high priority issues to be surveyed.

The impact of EU on the system of agricultural statistics

Considering that agriculture has the greatest proportional share of subsidies of the Union's budget, the European Union makes special requests and demands to the agricultural information system. A decisive majority of the information is supplied by agri-statistics which constitutes one of the best developed subsystems of the European Union's statistical system.

Agricultural statistics is based on EUROSTAT's statutes, agreements and recommendations.

The most important documents are the Acquis Communautaire and the Statistical Requirements Compendium which combined volume contains nearly 1200 pages. Further guidance is provided by the methodological handbooks numbering over ten.

The statutes, agreements and recommendations of the EU continually change, in accordance with the Community's agrarian policy (CAP) needs. Considering that the CAP is presently undergoing fundamental changes (becoming holder oriented instead of produce oriented) the near future may be expected to bring further and more pronounced changes.

In order to fulfil the harmonization related tasks the HCSO and EUROSTAT have defined the framework of co-operation in the so-called 'Common Declaration' in 1994. The strategy up to the year 2000 has been worked out subsequently. In the course of accession related negotiations the screening of the Statistical Chapter (12) took place in July 1998 in Brussels, within multilateral and bilateral frames. The Hungarian delegation had declared that Hungary accepts in the field of statistics the *acquis communautaire* and does not request a transitional period.

In the field of agricultural statistics the most important tasks were the following:

- full-scope agricultural census to be taken not later than 2000,
- development of the farm register (the Agricultural Statistics Department of the HCSO is working on the establishment and development of the register since 1991, based on previous agricultural censuses).

- development of a farm typology that satisfies equally the domestic and European Union's needs,
- fulfilment of a fruit-orchard and vineyard census prior to accessing the European Union,
- setting up a fruit-tree and vineyard register prior to accessing the European Union,
- revision and development of agricultural products statistics,
- observation of processed agricultural products,
- development of the system of agricultural accounts,
- development of the forestry information system.

Task schedules are shown in the following tables.

Assumed schedule of full harmonization

Denomination	2000.	2001.	2002.
	year		
1. Responsibilities of the HCSO			
Land use statistics			
Agriculture Census			
Farm register			
Eurofarm data-base			
Vineyard census			
Fruit orchard census			
Agricultural price statistics			
Agricultural Labour Input statistics (ALI)			
Crop production statistics			
Livestock statistics			
Food industry statistics – agriculture related			
2. Joint responsibilities (HCSO and MARD*)			
Typology			
Vineyard register			
Fruit orchard register			
Economic Accounts for Agriculture (EAA)			
Income of agricultural households			
Sectoral production and model for agriculture (SPEL)			
Farm Accountancy Data Network (FADN)			
Supply balance sheets for crop products			
Supply balance sheets for animal products			
Feedstuffs (fodder) balance sheets			
3. Responsibilities of MARD*			
Remote sensing			
Crop yield forecasts			
Forestry statistics			
Fishing statistics			

	recently harmonized, for the most part
	recently harmonized in part
	new task at present

* Ministry of Agriculture and Rural Development.

New data-collections within the time frame of medium term planning

Denomination	Planned launching date (year)				Remarks
	2001	2002	2003	2004	
Vineyard census	◆				In every 10 years (full-scope survey)
Fruit orchard census	◆				In every 5 years (full-scope survey)
Farm structure survey			◆		In every 2-3 years (sample survey)
Characteristics of agricultural production methods		◆			In every 2-3 years (sample survey)
Flower and ornamental plant growing		◆			In every 4-5 years (full-scope survey)
Production of milk and dairy products in agriculture	◆	◆	◆	◆	Monthly continuous (sample survey)
Slaughtering statistics	◆	◆	◆	◆	Monthly continuous (sample survey)
Organic farming		◆			In every 4-5 years (sample survey)

The undertaken dates mean an enormous duty for the Hungarian statistical service. Whereas only the Agricultural Census 2000 can give a complete view on the organisations, enterprises and households carrying out agricultural activity after the radical transformation of the 1990s, this is considered as the basis in case of all mentioned agricultural-statistical topics. Hence the successful fulfilment of the census is the precondition for the establishment of a EU-conform agricultural statistics in the forthcoming years.