

## Editorial

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The idea to organize the Special Topic Session 063 on “The role of population and housing and agricultural censuses in the national statistical systems” in the framework of the ISI World Statistics Congress 2013 (WSC 2013) generated from two previous events. The first was the Hungarian EU Presidency held in 2011, the second was the implementation of the Censuses in the 2010s. Both of them influenced respectively the scope of the invited speakers and the choice of the topic of the Session.

In the first half of 2011 Hungary held the Presidency of the Council of the European Union in the presidency trio together with Spain and Belgium. Hungary was the last member of the trio to fulfil the Presidency functions followed by the next trio comprising Poland, Cyprus and Denmark. In this position we had the chance to have close relations both with our own trio partners and the members of the next trio. Due to the complexity and magnitude of the Presidency work, these were much more than simple mutually helping work relations. As a result of our common endeavour we had developed excellent and friendly work environment and personal relations. As I was the chair of the Hungarian Presidency team in statistics, based on the exceptional cooperation developed during the terms of our Presidency, I felt motivated to renew and strengthen further this relationship by organizing with the trio partners a common session during the ISI WSC 2013. The idea was followed by action: I wrote to my trio partners inviting them to join my initiative and to my great happiness and satisfaction I received positive replies from Denmark, Poland and Spain. Our small team of experts was later complemented by Pietro Gennari, chief statistician of the FAO who gladly volunteered to join in our session.

I had no doubt about the choice of the topic either. On the one hand censuses are by nature the most challenging full scope operations in the work of the national statistical offices. On the other hand the national statistical offices of the EU Member States carried out in 2010 an agricultural census, which was followed in 2011 by the population and housing census. Meanwhile agricultural censuses represent the backbone of

agricultural statistics, population censuses are decisive for a period of ten years from the point of view of demographic and social statistics. It is only every ten years that the two censuses can give detailed information on the social and economic processes, but these censuses remain for a decade the basis of representative surveys.

*Population and housing censuses* are without doubt a trademark in the work of the statistical offices. In the majority of countries the execution, data processing and publication of the results of population and housing censuses fall within the competence of the national statistical service. Population censuses are conducted according to international recommendations and EU regulation. The European Union puts emphasis on the harmonization of census outputs in order to secure the comparability of the results. The compulsory European legal framework was set up in 2008. The Regulation (EC) No 763/2008 of the European Parliament and of the Council on population and housing censuses establishes common rules for the decennial provision of comprehensive data on population and housing, with 2011 as the first reference year. Member States are free to decide themselves how to conduct their 2011 censuses and which data sources, method and technology they use in their national context. This gives them flexibility, in conformity with the principles of subsidiarity and of cost-effectiveness and with the competences of the statistical institutes in the Member States. Lots of discussions are taking place on the future of population and housing censuses, on the use of new cost saving solutions for implementing the censuses. Our session presents in this respect the national experiences of three European countries, Poland, Spain and Denmark.

Similarly to population censuses *agricultural censuses* are also conducted every 10 years according to international (FAO) recommendations. The Food and Agriculture Organization of the United Nations (FAO) is promoting the decennial World Programme for the Census of Agriculture. The ninth, 2010 round of agricultural censuses, covers agricultural censuses to be undertaken between 2006 and 2015. For this round, a new approach is being used, with the emphasis on con-

ducting agricultural censuses within the framework of the system of integrated agricultural censuses and surveys and in the broader context of the national statistics system. The new programme recognizes the high cost of conducting an agricultural census and places emphasis on coordinating the agricultural census with other censuses, especially the population and housing census. Considerable cost savings and added value can be gained by such an approach. Eurostat, the statistical office of the European Union has followed FAO's recommendation on the world-wide decennial agricultural census since the 1970 round. Additionally, in the European Union the implementation of agricultural censuses is regulated by European Parliament and Council regulation and follows the FAO recommendations. The system of Farm Structure Surveys is regulated currently by Regulation (EC) No 1166/2008 of the European Parliament and of the Council, which stipulates that farm structure surveys must be conducted in 2010, 2013 and 2016, the 2010 survey carried out in the form of a census and the two other surveys as sample surveys. The regulation defines also the quality requirements and survey characteristics which cover increasingly the issue of the environmental impact of agricultural activity.

While in the case of population and housing censuses the great challenge for statisticians is to develop the methodology of conducting population censuses based on registers instead of the traditional (door to door) censuses, in the case of agricultural censuses the situation is slightly different. Although the broadest possible use of administrative data sources is also strongly encouraged for the conduct of agricultural censuses, the extension of survey characteristics to environmental impact factors, the determination of the location of the holdings with geo-coordinates aim at facilitating the work of the users and decision makers in the field of territorial and rural development.

In our world of increasing globalisation there is a clear need to integrate censuses, statistical data, databases, which led me to choose without hesitation these two censuses as the topic of our session. Guided by the idea that the members of our trio, based on the differences of Member State characteristics could give a useful and varied picture of the on-going developments, I asked my colleagues to make proposals concerning the subject of the presentations and the person of the speakers.

I have received excellent proposals for papers from distinguished experts of social and agricultural statistics.

### **The papers follow the order of the session**

The document entitled "The Global Strategy to Improve Agricultural and Rural Statistics" prepared by the most important stakeholders was published after several years of work in which FAO had played a decisive role. The document lays down the basis of the current agricultural statistical system. The publication "Guidelines for Linking Population and Housing Census with Agricultural Census" prepared by FAO gives guidance on how to implement in practice the concept of the Global Strategy. Pietro Gennari presents in his and his co-author's Naman Keita's paper entitled "*Building a Master Sampling Frame by Linking the Population and Housing Census with the Agricultural Census*" how agricultural data collected in the framework of the Population Census can contribute to building a Master Sample Frame for agricultural censuses and surveys which not only reduces costs, improves data quality and timeliness, but could also allow a more sophisticated analysis of census data. The paper mentions also the limitations of this solution. The presentation puts in a global context the issue of the development of agricultural statistical systems in developing countries.

The Polish Statistical Office has been dealing since the censuses of the turn of the millennium with the issue and practical solutions related to the integration of big censuses. Grazyna Marciniak's presentation "*Modern Approach to Censuses in the Case of Poland – Advantages and Constraints*" is a concrete example presented in the Polish context of the implementation of a mix-mode approach in the framework of a common project for the conduct of the Agricultural Census 2010, and the Population and Housing Census 2011. The lessons learned highlighted in the paper can serve as the basis for the preparation of the next census round. The Polish experience is an excellent illustration of the current trends and attempts.

In line with the other presentations of the Session the Spanish paper aimed also at illustrating the shift from the "traditional" solutions of census taking towards new ways allowing not only a decrease of cost and burden, but also the production of good quality data for our users. The title of the paper written by Antonio Argüeso, and his co-author Jorge L. Vega entitled "*A Population Census based on Registers and a "10% survey". Methodological Challenges and Conclusions*" is already revealing how the population and housing census 2011 was carried out in Spain. The paper gives detailed description of the conduct of the cen-

sus and the methodology used. The overall cost of the census represented 20% of the cost of a traditional census. As no perfect solution was found to correct inconsistencies, the importance of transparency and methodology clearly explained was highlighted. The Spanish experience is another perfect example of multi-channel surveys, and solutions rooted in the national specificities.

Statistics Denmark is among the statistical offices having the best relevant experience in the use of administrative data sources, and this is why it is especially important to get acquainted with the views of the Danish speaker of the Session about the future of the register based population censuses. From Anita Lange's paper "*The Population and Housing Census in a Register Based Statistical System*" we can learn that the first and last register based population and housing census in Denmark took place in 1981 and that in a register based statistical system like the Danish, the concept of the census of population is not valid any more. Denmark still undertakes register based censuses, but only to fulfil international commitments. We can learn from the paper how the statistical system evolved towards a register based statistical system. The very specific Danish case develops further how the use of registers can maximize statistical production.

The past, present and future of agricultural censuses differ in many respect from the lifecycle of population censuses. The common goal besides the extended use of administrative data sources is to improve data quality complemented by relevant information/data, like the determination of the location of the holding with geo-coordinates. An example of this endeavour is presented by György Lengyel in his paper entitled "*Agricultural Census 2010 in Hungary*" in which he gives a description of the legal background of the census, the main differences compared to earlier censuses and some special topics as well. The use of administrative

data sources is detailed both in the preparation and the processing phase. The conversion of the information on the location of the agricultural holding into geo-coordinates is presented. In case the farmer provided address, it was converted into coordinates based on the database gathered for the purposes of the Population census.

Last but surely not least, let me mention the contribution of Janusz Witkowski, discussant of our session. On the one hand he gave a general and comprehensive analysis of the essential characteristics of censuses, focusing mainly on population censuses, which covered the most challenging elements and tasks to be solved. On the other hand he formulated targeted and stimulating questions to the speakers. The questions ranged from more general considerations to very concrete inquiries about specific national implementation measures. All the questions are presented in his paper.

At last I have to pay tribute to the speakers for having been partners in giving shape to my idea, to organize the session. I seize this opportunity as well to thank all the contributors of our session for their enthusiasm in our common endeavour experienced at WSC 2013 in Hong Kong and later preparing this Special Edition of the Statistical Journal of the IAOS. We all felt greatly honoured when the Chief Editor of the Journal proposed to dedicate a special issue to our session and publish the presentations in their entirety. We are happy for the possibility to share our work with the broad audience of the Journal and hope that the readers will consider the information useful.

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