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**STATISTICAL COMMISSION and
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EUROPE**

**CONFERENCE OF EUROPEAN
STATISTICIANS**

**Joint UNECE/EUROSTAT/FAO/OECD
Meeting on Food and Agricultural Statistics
in Europe
(Rome, 29 June-1 July 2005)**

**STATISTICAL OFFICE OF THE
EUROPEAN COMMUNITIES
(EUROSTAT)**

**FOOD AND AGRICULTURE
ORGANIZATION (FAO)**

**ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT
(OECD)**

REPORT

INTRODUCTION

1. The Meeting on Food and Agricultural Statistics in Europe, convened jointly by Eurostat, FAO, OECD and the UNECE was held in Rome from 29 June-1 July 2005. It was attended by Austria, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Latvia, Lithuania, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia and Montenegro, Slovak Republic, Slovenia, Sweden, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, United Kingdom and United States of America. The European Commission was represented by Eurostat. Representatives of the Organisation for Economic Cooperation and Development (OECD), the Food and Agriculture Organization (FAO) and the World Food Program (WFP) also attended, as well as representatives of the World Bank.

2. The meeting adopted the provisional agenda.

3. Ms. Susan Offutt (United States) was elected Chairperson and Mr. Andrea Mancini (Italy) elected Vice-Chairperson.

ORGANISATION OF THE MEETING

4. The following substantive topics were discussed at the meeting on the basis of invited and supporting papers and conference room documents that countries and organisations had contributed:

- (a) Information items
 - MEXSAI - the 3rd World Conference on Agriculture Statistics
 - Preparations for the 4th World Conference on Agriculture Statistics, Beijing 2007
 - Programme for the World Census of Agriculture 2010
 - FAOSTAT and CountrySTAT
 - World Bank strategies for statistical capacity building of agriculture statistics as part of national statistical systems
 - 55th session of the International Statistical Institute, Sidney, 5-12 April 2005
 - UNECE activities in food and agriculture statistics
- (b) Statistics related to food safety and related quality control procedures
- (c) Introduction of the international Handbook on Rural Household, Livelihood and Well-Being: Statistics on Rural development and Agriculture Household Income
- (d) Rural development statistics (part I of the Handbook)
- (e) Measurement of agricultural household income including the definition of the agricultural household (part II of the Handbook)
- (f) Agri-environmental, organic farming and sustainability statistics
- (g) The role of the agriculture, agri-food and the agri-industry in the economy

SUMMARY OF DISCUSSION AND THE MAIN CONCLUSIONS REACHED AT THE MEETING

5. Recommendations for future work are given below. Other conclusions that the participants reached at the meeting on the above topics will be presented (in English only) in a separate report to be prepared after the meeting. This report will be distributed to participants and be made available on the web site for the meeting: www.unece.org/stats.

RECOMMENDED FUTURE WORK

6. Based on the proposal of the IWG.AgRI Programme Committee, the meeting recommended that a future joint UNECE/Eurostat/FAO/OECD meeting be organized in 2007. The following substantive topics were considered of greatest interest for possible inclusion in the agenda for the next meeting:

- (a) Evaluation of the International Handbook on Rural Household, Livelihood and Well-being. Needs for updates and revisions;
- (b) Rural development statistics, including territorial and small area statistics;
- (c) Agriculture household income and wealth compared with other socio-economic groups;
- (d) Preparations for the 2010 Agriculture Census;
- (e) Agri-business statistics.

The meeting also expressed interest in the following issues: organic farming and food consumption.

7. The Meeting also endorsed the Handbook on Rural Household, Livelihood and Well-Being and asked IWG.AgRI to complete it in autumn 2005 and to ensure that it receives a wide dissemination.

8. The Meeting asked the Task Force that was set up for the Handbook to review reader feedback on the Handbook and to report to the 2007 joint meeting if there is a need for revisions and amendments.

9. The OECD extended an invitation to host a Task Force Meeting in 2006.

ANNEX SUMMARY OF DISCUSSION

Item 3: Information items

1. Mr. Juan Manuel Galarza (Mexico) informed the delegates about MEXSAI - the 3rd World Conference on Agriculture Statistics, which took place in Cancún, Quintana Roo, México, from November 2nd to 4th, 2004. The conference, which was sponsored by SAGARPA and NASS/USDA, was attended by 220 delegates from 45 countries.
2. FAO updated the delegates on the preparations for the 4th World Conference on Agriculture Statistics to be held in Beijing, 2007. The Chinese organizers had asked FAO to convey the message that the meeting will take place in the second half of October 2007. The National Bureau of Statistics will be the main host.
3. FAO also updated the participants about the programme for the World Census of Agriculture 2010. FAO has the final draft of the list of items, which will be published at the end of 2005. FAO intends to introduce the Agricultural Census not as a stand-alone exercise but wishes also to encourage member countries to include surveys based on the agricultural census. A small core list of 16 items is included, which FAO proposes to have as a standard for future surveys. The modules proposed will be selected by countries as part of their priorities. FAO drew the attention to the UN's Statistical Division and the work on the linkage between Agricultural Census and Population census.
4. FAO presented an update of some of the major changes in their FAOSTAT2 project and CountrySTAT. FAO has developed this new system to improve the user interface, improve the data quality, incorporate new user requirements, improve user access and enhance the integrity of the data. FAO announced that this project was scheduled to be released early next year. FAO further illustrated how and for which purposes the core data could be used in terms of creating e.g. resource accounts; trade accounts and most importantly this framework will make it easier to develop indicators.
5. Mr. Mike Steiner, United States, informed delegates about the 55th session of the International Statistical Institute (ISI), Sidney, 5-12 April 2005. The event consisted of both scientific and technical presentations plus various committee meetings, which met during the sessions. Fred Vogel (World Bank) chaired the meeting. Discussion also focused on the next world conference on agriculture statistics, which will be held in Beijing in 2007.
6. UNECE informed that the OECD is to withdraw from agricultural statistics. To this end it has been agreed with the OECD that the UNECE will take over Economic Accounts for Agriculture as from 2006. Besides EAA, the priorities of the UNECE are: agricultural census, agricultural household income and rural development statistics.
7. The World Bank presented its strategies for statistical capacity building of agriculture statistics as part of national statistical systems. Currently, there is increasing demand for statistics where it can act as component of good governance, or to be used to monitor poverty

reduction strategies. Many statistical systems, especially in developing countries, are under pressure. Hence, there is a need to address this under-investment in statistical systems. The way forward is that any initiative must be country-led, while at the same time emphasizing greater coordination. In response to this background situation, the World Bank has implemented the so-called Marrakech Action Plan for Statistics (MAPS).

Item 4: Statistics related to food safety and related quality control procedures

Discussant: Ms. Maya Pineiro, Food and Nutrition Division, FAO

8. The two invited papers dealt with an area, which is of importance for all members of society. The discussant mentioned that we now have an approach, which ensures the control of food safety from the production process, through distribution to the consumers. There is a need for indicators not just to know the hazards and the areas that are likely to be most affected, but there is also a need to evaluate whether the measures being put in place are successful or not.

Invited paper 1: Towards food safety statistics at the EU level.

Author: Ms. Ana Maria Martinez Palou, Eurostat

9. The purpose of the paper, which is structured in five sections, was to report on the short-term and medium-term developments of the work that has been carried out by Eurostat since 2003. At the beginning, the project was defined as providing quantitative evaluation of data on the safety of products: food and feed; production intra-EU and also trade with other countries. The scope ranges from covering the primary production via manufacture of food products and beverages, but also packaging, distribution up to the consumer as well as all inputs into the food chain. Concerning the agreed orientations, the author underlined that it is a very wide project, which focuses on building on existing information. Furthermore, the priority areas identified were: statistics on products “with distinctive marks”; controls and monitoring activities; food consumption; and traceability and labelling. Finally, the intention of the project was to create a database with all relevant data for this project. The approach builds from existing information reported to this forum in July 2003. It was decided to make an inventory of data already available and to analysis the availability of data before launching new surveys in order not to ask Member States to provide twice the same information.

Invited paper 2: Statistics related to food safety and quality.

Author: Ms. Lourdes Costarrica, Food and Nutrition Division, FAO

10. The presentation was structured around the following items: some of the challenges in terms of the need of data and information at national and international levels; type of data needed by FAO; current availability of data; what are the existing problems and limitations; and then some practical recommendations.

11. Concerning the data used at national level, the author enumerated the following issues: risk-based systems for food control along the food chain; food-borne disease and diet-related chronic diseases surveillance and control programs; interrelationship between food safety,

food quality and adequate and nutritious food; formulation of health, and agriculture and trade policies.

12. In conclusion, FAO provides the following recommendations: to develop/enhance networks to facilitate the collection of data for use in food safety related work; to enhance capacity building programs to assist developing countries in their efforts; and to promote public/private partnership to enhance these capacity building efforts.

13. The discussion was summed up by the discussant who underlined the importance of how to use the data – to identify whether data is targeted or not. Another issue that was highlighted was how to better define the type of need before the data is produced. The importance of using quantitative data was also emphasized and that the data has to be reliable statistically, hence the need for guidelines.

Item 5. Introduction of the international Handbook on Rural Household, Livelihood and Well-Being: Statistics on Rural development and Agriculture Household Income

Discussant: Ms. Susan Offutt, United States

14. The discussant introduced the Handbook by highlighting the emergence of two issues: the activities of the farm household beyond the farm business and the linkages of farm business with the rest of the rural economy. Secondly, rural development is not exclusively tied to the agricultural production.

15. It was mentioned that the issues behind the Handbook have evolved and increased in interest since the 2001 CAESAR Conference in Rome, which among other things addressed the key topic “What is agriculture?”. Already at that moment in time, there existed an increased interest in pursuing the expanded view of the agricultural farm household. The discussion then continued in subsequent meetings held by the IWG.AgRI Task Force and out of a series of meetings came the production of the Handbook. The creation of a Handbook was aimed at recommending “good practices”.

16. The presentation of the Handbook was in the form of a reader guide, since there was no time to go through the Handbook in details. The intention was purely to highlight a few of the key points, which the Task Force thought was interesting to discuss with the delegates.

17. All the chapters are in electronic format and will be revised and amended over the years to come. The countries present at the meeting were asked to review the chapters, which contained a number of inventories of country data. Factual errors should be reported by the deadline set at 1 September 2005. The meeting was further informed that the final technical editing was going to take place in September and the Handbook would be posted on the web and published by October or November 2005. The Handbook should be considered a living document. It was acknowledged that it was not entirely complete with regards to the aspects pertaining to developing countries. The intention is that in the next version FAO will provide more examples from the developing countries.

18. Chapter I contains a broad introduction to the two parts of the Handbook. It reviews the reasons for looking at the agricultural and rural households from a policy point of view. The existing rural statistics seem to be fragmented and hence have to be brought together from a lot of different data sources. Developing such a system begs the questions: what areas/concepts should be defined; what is the coverage; what are the indicators that can be used; what is the basic geographical unit to assemble this data from; and how to acquire these datasets.

19. The Handbook is intended to help statisticians and compilers of statistics as well as the users of rural development statistics and agricultural household income measures. Rural development is a geographically based concept, but it is also multi-sectorial, because it is far more than just agriculture. Hence the need to make use of a multitude of data sources, some of which from non-traditional sources. Rural development is a dynamic concept. Rural areas are very heterogeneous, with widely different bundles of problems. The main interest revolves around demographic change and employment and income.

Item 6: Rural development statistics (Part I of the Handbook)

Chapter II: National and international rural development policies

20. Chapter II reviews rural development policies at national and international levels. The chapter starts by providing a few examples of national rural development policies from both developed countries and developing countries.

21. Rural development from a sectoral based approach - seen from the agricultural perspective - is discussed. It appears that developed countries agricultural policy provides less and less stimulus to the viability of the rural economy. However, the chapter argues that it is important that countries continue to monitor both the share of output provided by agriculture as well as pluri-activity. Concerning the farm policy dilemma, the chapter further suggests that viable rural communities may better be assured by comprehensive area-targeted programmes rather than by traditional agricultural production-linked payments. In other words, a shift from a sectoral to a territorial policy approach.

22. The section on rural development from a territorial based approach shows that employment is the driving force of rural development, and that rurality in itself is not a handicap for job creation. It also illustrates the trends for rural regions in the last 15 years, which shows that the rural areas and their economies are very heterogeneous in the sense that certain rural regions perform better than others with regards to entrepreneurship and job creation.

Chapter III: Conceptual framework applied by international organizations

23. Chapter III of the Handbook presents the conceptual framework from the following international organizations: OECD, European Union (Eurostat), World Bank and FAO. So far an official definition of "rural" does not exist in the EU, it is rather a perception. It is difficult to agree on such a definition, due to the diversity of the 25 Member States. For the time being Eurostat uses two approaches: the OECD concept and the degree of urbanisation concept.

24. According to the degree of urbanization concept three types of areas are distinguished: (1) densely populated area: set of local areas, with a density > 500 inhabitants/km², and a total population of at least 50.000 inhabitants; (2) intermediate area: set of local areas, not belonging to (1) with a density > 100 inhabitants/km², and either with a total population of at least 50.000 inhabitants or adjacent to (1); and (3) thinly populated area or rural: set of local areas, neither belonging to the two other categories (1) or (2).

Chapter V: Inventory of rural indicators by international organizations

25. Eurostat, FAO and the World Bank presented the list of indicators used by the respective organizations. To this end, the pioneer work of the OECD in the 1980s and 1990s was also highlighted. The general subjects proposed by the OECD are very similar to what the other organizations have identified: population and migration; economic structure and performance; social well-being and equity; and environment and sustainability.

26. Many indicators covering the socio-economic issues will come from the LFS: forms of employment measured by percentage of self-employed persons; the importance of different sectors measured by the indicator employment in agriculture and forestry, secondary and tertiary sectors by gender; the importance of public sector measured by the indicator percentage of employment in public sector by gender; capacity of collective tourist accommodation measured by the indicator capacity of hotels and similar establishments (tourist camp sites etc.); weight of manufacturing measured by the indicator GVA in manufacturing as percentage of total GVA of the area; weight of tertiary sector measured by the indicator GVA in the tertiary sector as percentage of total GVA of the area; availability of roads/rails measured by transport system; supply with schools measured by number of primary schools per 100.000 inhabitants; proximity to primary schools measured by percentage of population within a certain distance to next primary school; relative wealth of the population measured by households disposable income per capita or GDP per fulltime equivalent or per hour worked; poverty measured by at-risk-of-poverty rate; and finally quality of life measured by accommodation, housing conditions or durables. Other areas, which were highlighted during the discussion, were: the method of benchmarking activities and use of business registries for business demography and measurements of entrepreneurship.

Chapter IV: Inventory of national approaches to rural development statistics

27. In 2003 the UNECE send out a survey questionnaire on RDS to UNECE member countries. 26 countries responded. The survey took a close look at each country. The areas covered were: which organizations have responsibility for RDS; degree of rurality; threshold for classifying an area into a unit; statistical data on rural definition; which core indicators countries were collecting or whether published on internet; and availability of small area statistics. Chapter IV also provides an extensive case study from CANADA as an example of good practice. Countries were asked to carefully review reported data.

Chapter VI: Measurement issues, data sources and methodologies

28. The chapter describes various data sources such as: censuses of population and agriculture (linkage); household budget surveys; living standards measurement studies; international household survey network; labor force surveys; administrative records (taxes, licenses, schools) and estimations. The chapter also presents a number of methods such as: sampling; core and supplementary modules; and GIS e.g. distances (from urban center, hospital, school).

29. On the issue of geographic units, the chapter mentions that boundaries change over time with population growth, and that they are porous due to commuting. Moreover, small size creates problems of unreliability and confidentiality. The chapter also brought up issues such as unemployment versus underemployment statistics; multiple and seasonal job-holding, informal economy; and distance to as well as presence of facilities. An extensive presentation was made of what constitutes rural amenities and social capital.

30. During the discussion, reference was made to the large body of experience of using informal methods of measures – qualitative methods/appraisals used to measure rural livelihood.

Chapter VII: Recommended core set of indicators and extended sets

31. The chapter is to provide a framework upon which to construct a set of core indicators. Many indicators have been put forward in national and international organizations. Many of these indicators are, however, highly correlated and too many can be misleading. The chapter proceeds by starting from the definition of what is rural and what is not rural. It presents a model with two main statistical units: Rural households and Rural areas.

Item 7: Measurement of agricultural household income including the definition of the agricultural household (Part II of the Handbook)

Chapter VIII: Conceptual framework - introduction

32. The chapter raised the question as to why there is a need for this information. The information on agricultural household income is fundamental for explaining many things of relevance for policy. Three basic components stand out: the low-income problems in OECD countries, e.g. level of income and the poverty issue; the variability of incomes from year to year, which is an inherent characteristic of agricultural production; and the compensation in relation to the rewards earned in other industries.

33. It is difficult to measure the level of income of agricultural households, because many households receive rewards outside agriculture from non-farm sources. Moreover, the stability situation is transformed when looking at the non-farm income, which adds a component that is far more stable than the AHI. Thus, it is not possible to understand the instability issue without taking into account the other incomes sources. It is also essential to include the overall view of agriculture, including: the farm's response to technological

advance, financing by income from other sources; and behaviour in terms of land use will depend on what is coming in from other sources.

Chapter IX: The agricultural household – concepts and definitions

34. The chapter discusses the household as a major form of institutional unit and a policy-relevant unit of living, to which the key issues are the definition of a household and the classification of households into socio-economic groups.

35. The Handbook recognizes that a flexible but transparent approach should be taken to the definition of a household. While income measurement on the basis of the complete dwelling household should be undertaken to facilitate comparisons, both with international and national data sources, data should also be available to allow the application of the concept of the single budget household, which in some circumstances may be preferable.

36. It is also recognized that data should be available to develop estimates of income for households ranging from those narrowly defined based on the main income of the household, suitably smoothed to take into account the year-to-year variation, for which averaging over three years is advised, to households that earn any income from self-employed farming activity.

37. Where it is not possible to identify households with main income from self-employed farming activity, the Handbook recognizes the use of a reference person system, where this person is normally the main income earner. The income situation of the households of hired agricultural workers should be assessed as a separate and supplementary exercise.

38. During the discussion, the point was made that it is important to talk about the income units, which will be different from country to country. One household can have three families. There is a need to look at the income unit and separate the general income statistics.

Chapter X: Definitions of income

39. The chapter approaches income as factor rewards and as source of consumption spending. It states that most statistics for agriculture interpret income as the mix of reward to the fixed factors of production used in production. The Handbook is concerned with the total and disposable income of the households as institutional unit, available for consumption and saving/investment. As such, income includes more than profit from agricultural production.

40. SNA approach to disposable income consists of the following main items: Income from self employment (agriculture and other activities); imputed rental value of owned dwellings; wages and salaries; income from property (rents, interest etc.); social benefits; other current transfers; taxation and social contributions (-ve); other current (-ve) transfers; and social benefits in kind.

41. With regards to individual versus household incomes, income measurement is often done on the basis of individuals within the household. Moreover, the policies need to know

how this income is shared in the household. Intra-household transfers are particularly significant in developing countries. Chapter X also dwells on the various income concepts and relationships between them: Extended and full income.

Chapter XI: Income distribution and poverty

42. This chapter recommends the calculation of the basic statistical characteristics of the distribution of incomes of agricultural households, including medians and quartiles, and measures of inequality and of poverty based on them.

43. During the discussion the point was made that it is important to recognize that there are many causes of poverty in rural households. One of them is lack of access to education – especially for girls –, women are dominant in the agricultural production in developing countries. Education affects women's productivity but also their access to inputs and other basic rights. Another issue is access to health care. If there is lack of nutrition, then children grow up stunted and their abilities to produce are adversely affected. If access to land is denied them, then they end up as labourers on other farms.

44. In the recognition of the Handbook's weakness with regards to issues pertaining to developing countries, the World Bank was encouraged to provide an additional contribution.

Chapter XII: Wealth

45. The chapter explains the reasons behind the interest in farm-household wealth measures. It is noted that at the household level there are various sources of income and expenditures for the household. It also provides information about farmers' wealth building, portfolio diversification; retirement and financial security in later life; and more comprehensive measures of household economic well-being. The balance sheets for households are constructed around the accounting equation.

46. The chapter mentions that farm households allocate own resources to multiple uses, respectively farm operations (e.g. output, purchased input; and capital investment) and non-farm economic activities (e.g. self-employment; wage and salary; and saving and investment). In other words, farm household net worth (wealth) originates from both farm and non-farm sources.

Chapter XIII: Inventory of agricultural income statistics

47. The chapter presents an inventory of agricultural household income statistics. This was done through two UNECE surveys on definitions and measurement issues first in a group of developed countries and subsequently in a sample of 10 developing countries. The chapter also includes income and wealth statistics for a selected group of countries.

48. The results of the survey show that there are large differences in the concepts, definitions and coverage used by countries in defining the income of agricultural households.

It might be argued that such flexibility of detail is needed to reflect differing socio-economic conditions, although these differences make cross-country comparisons difficult.

49. From the survey among developing countries it appears that all the non-randomly selected developing countries in the sample use common dwelling as the main criteria in their definition of household, while deemphasizing the necessity of a family link. Moreover, most of the sampled developing countries do make reference either explicitly or implicitly to shared budget and food /meals in their definition of a household within the framework of the Living Conditions Surveys.

50. The chair's summing up of the discussion concerning the Handbook: As the world changes, so should the collection of public statistics that inform governments and citizens about the nature of their lives and their livelihoods. For rural communities and for agriculturalists, the past decades have seen significant evolution in the structure and significance of farming and in the composition of rural economies. In developed economies, food is less and less a commodity business. With food sufficiency not an issue for most, consumers have developed strong preferences with respect to food quality and safety. In rural areas, farms are often no longer the mainstay of economies, and many farm families have income from both the farm business and off-farm employment.

51. Accordingly, public data collection is under increasing pressure to move away from an almost-exclusive focus on agricultural production. But move to what? This Handbook responds to the question, what next for rural and agricultural statistics? It envisions the need for better data and indicators on the environment, rural economies and communities, and, very importantly, the farm household itself. Changes in the rural and farm sectors are accompanied by growing requirements for comparability in statistics across countries and for statistics as a measure of accountability in the use of public funds.

52. Call for comparability in statistics across countries arises as a consequence of the phenomenon of globalization. For agriculture, world markets matter and multi-lateral trade liberalization almost certainly will require some degree of farm policy reform in developed – if not developing – countries. International trade agreements already point in the direction of the likely outcome: a requirement that domestic farm support distorts world markets as little as possible. Effectively, this non-distortion criterion rules out direct market intervention to affect prices or acres planted or quantity produced. Therefore, the effects of policy cannot be seen simply by observing supply and demand shifts in commodity markets. Market interventions are often replaced by direct payments to farm households, and the disposition of those payments – as allocated between the farm business and other activities – is a matter for empirical analysis.

53. Understanding the ultimate market impacts of direct payments depends on having data on farm households that includes the farm operation and also all other activities. Focus on farm accounts and business is not sufficient. The choice made in allocating direct payments to farm and/or non-farm activities is conditioned by a household's income and its wealth, along with its preferences and demographic characteristics. In some constructions of an eventual agreement in the current Doha Round of trade negotiations, nations would be

required to demonstrate that domestic support provided to farmers does not distort world markets, that is, does not cause them to increase agricultural production such that aggregate supply is affected significantly. Proving a negative proposition is difficult enough, but without data on the full range of a farm household's activities (that defines its choices for use of the direct payments), it really is impossible. Therefore, some degree of comparability across nations in farm household data is probably the precursor to its effective use in analyses that assess the degree to which countries are meeting their international obligations.

54. Beyond uses in international fora, data on rural and farm households and on rural economies and environments are increasingly sought as measures of the efficacy of public policies. Accountability is more than ever a requirement in governance, in both developed and developing countries. Objective assessment of the well-being of a nation's households is one obviously important indicator of success. The condition of the natural environment is another. For rural areas, these dimensions of the quality of life are important in sustaining agriculture but also other activities such as tourism. The need to understand the causal linkages between government actions and economic and environmental well-being puts renewed emphasis on the careful selection of indicators and their policy relevance. Quantification is the by-word of accountability.

55. The Handbook aims to be a guide to those who confront some of these measurement challenges for the first time, but also for those who are building on existing programmes. It is a reference for current best practices but also, as a living document, a potential repository for findings of new ways to approach measurement of important variables. In this respect, both developed and developing country settings are important. Users of the Handbook would be those who are charged with data collection but also those who use the data to perform analyses and to interpret what the statistics mean for personal and national goals.

Item 8: Agri-environmental, organic farming and sustainability statistics

Discussant: Mr. Michael Goll, Eurostat

Invited paper 3: Agri-environmental indicators: Nitrogen balance at NUTS IV level. A case study in Greece.

Author: Ms. V. Benaki, Greece

56. The paper presents a project, whose aim was to introduce an analytical tool using Geographical Information System and statistical data available from existing surveys (Farm Structure Surveys and the Agricultural Census) in order to measure the impact of agricultural activities to the rural environment. The study focused on the nitrogen balance from agricultural activities, at LAU1 level, as an indicator of the risk posed to the environment from excessive nitrogen. The LAU1 analysis of the nitrogen balance made in order to identify areas of high surpluses and thus where surface and ground water may be at risk.

57. The paper concludes that it has been proposed a methodology that is innovative; uses low level of NUTS IV calculation; is based on error free guaranteed statistical data; and the estimation and coefficient applied are of international standards.

Invited paper 4: Statistics on organic farming and organic products in Denmark. An inventory
Author: Mr. Poul Henning Larsen, Denmark

58. The paper briefly presents the historical background, highlighting that after August 2000 Denmark has complied with the EU-regulation. The objective of the paper is to present a data needs assessment; the mapping of existing data capture possibilities; and provides proposals for new statistics within the organic sector.

Invited paper 5: Agri-environmental issues: policies, definitions of indicators lists and related implementation processes.

Author: Ms. Giampaola Bellini, Italy

59. The paper focuses on agri-environmental issues and related policies, by looking into the Common Agricultural Policy (CAP), the rural development policy; the environmental policy; and the sustainable development policy. It then presents these policies' targets and reporting activities. The paper presents the frameworks and the indicators lists. This is followed by an analysis of overlapping and missing issues. Finally the paper discusses the integration of AE issues in statistical activity at national level.

60. The paper concludes that there is a need to focus effort on some of the weak areas, which at the international level are: indicator lists' definition and implementation; analysis of overlapping and missing issues between indicators lists; and adequate attention to agricultural practices. Action is needed through more cooperation between statistical data producers. There is also a need to improve models and to understand the relevant agricultural practices.

Item 9: The role of the agriculture, agri-food and the agri-industry in the economy

Discussant: Mr. Kristian Hjulsgager, Denmark

Invited paper 6: Resource area statistics.

Author: Mr. Kristian Hjulsgager, Denmark

61. The paper starts by stating the purpose of statistics, which is to illustrate the economic development within mutually dependent business areas, the so-called resource areas. It is suggested that the economy should be divided into eight resource areas.¹ The traditional way to classify the economy is to talk about: primary; secondary; tertiary; and the quaternary (i.e. public) sectors. The author of the paper argues that it is more interesting to show the food area as one amongst 8 resource areas. There are connections between the primary and secondary areas, but there are also connections to the tertiary sector, e.g. retail and wholesale. A resource area consist of 4 sub-areas: primary industries producing raw material; manufacturing; helping /auxiliary industries; and service industries. All resources areas consist of these 4 sub-areas.

¹ 1. Food; 2. Furniture/clothing; 3. Tourism; 4. Construction/Housing; 5. ICT/Communication; 6. Transport; 7. Energy/Environment; 8. Medicine/Health.

Invited paper 7: The agriculture and agri-food system in Canada.
Author: Mr. Denis Chartrand, Canada

62. The invited paper from Canada presents a short overview of the agriculture and agri-food system in Canada, highlighted at the macro level. The paper notes that 8-10 years ago the agricultural policy in Canada shifted from a focus on farm commodities to a broader focus on the agriculture and agri-food system. Consequently, the purpose of this paper is to review some of the statistical dimensions of the agriculture and agri-food system.

63. The paper summarizes the statistical trends by noting that the primary agriculture sector represents 1% of GDP, while the “agri-food” sector represents 7%. Employment growth is solely due to the growth of employment in restaurants, bars and taverns. Rural is not only agriculture - only 6% of rural employment is on farm. Agriculture is not only rural – only 71% of agriculture employment is in predominantly rural regions.

Invited paper 8: Structural characteristics of agriculture and food industry in Hungary (1990-2004).
Author: Ms. Éva Laczka, Hungary

64. The paper looks at the actors of Hungarian agriculture; the food industry and its role in the Hungarian economy, employment and its external affairs. In the last 15 years, the annual output increased by 2% in line with the population growth. In Hungary the performance fell behind the EU average.

65. The Hungarian agriculture is characterized by a 60% utilization of the agricultural area; the utilised agricultural area per capita 0,6 hectare; there is a clear dominance of cereal production; limited orchard and vineyard areas; and decreasing animal husbandry.

66. The paper concludes that the change-over in the early 1990s to the market economy hit the Hungarian agriculture and food industry hard. The share of agriculture and food industry in the GDP declined; which was followed by a decline in the employment share of the agriculture and food industry. However, the transformation process continues and the agriculture and food industry should find their place and role in the EU market economy.

Invited paper 9: Developing measures of the economic impact of agriculture, agri-food and the agri-industry.
Author: Mr. Rich Allen, United States

67. The value added is calculated for each step of production, transportation, manufacturing, distribution, and sales until final goods are consumed. For example, grains are purchased for feed to livestock. The livestock is then sold for slaughter as meat. The total value of the grains is not added to the total livestock value.

68. What makes it difficult to measure economic impact are that: data are needed from many sources; information is needed on what inputs are used for creation of manufactured goods; data sources may differ in quality and not relate to common time periods; and mixes of

inputs vary from time to time in the creation of manufactured goods and even production of agricultural products.

69. The starting point is quantity measures. Measures are needed for all agricultural products and measures are needed for other industries, especially those, which transport agricultural products or use agricultural outputs to create other products.

Invited paper 10: An overview of Italian agriculture and the food industry.

Author: Ms. Federica Piersimoni, Italy

70. The paper by Italy presents an overview of the Italian agricultural and food industry, using SNA figures and input and output tables. The paper also shows employment figures coming from two censuses: the industrial census and the agricultural census.
