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**COMMISSION DE STATISTIQUE et  
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L'EUROPE**

**COMMISSION DES COMMUNAUTÉS  
EUROPÉENNES (EUROSTAT)**

**CONFÉRENCE DES STATISTICIENS  
EUROPÉENS**

**ORGANISATION DES NATIONS UNIES  
POUR L'ALIMENTATION ET  
L'AGRICULTURE (FAO)**

**Réunion commune  
CEE/EUROSTAT/FAO/OCDE sur les  
statistiques alimentaires et agricoles en Europe  
(Genève, 17-19 octobre 2001)**

**ORGANISATION DE COOPÉRATION ET DE  
DÉVELOPPEMENT ÉCONOMIQUES (OCDE)**

## **RAPPORT DE LA RÉUNION**

### **INTRODUCTION**

1. La Réunion sur les statistiques alimentaires et agricoles en Europe, organisée conjointement par Eurostat, la FAO, l'OCDE et la CEE/ONU, s'est tenue à Genève du 17 au 19 octobre 2001. Y ont participé les représentants des pays suivants: Albanie, Allemagne, Autriche, Azerbaïdjan, Canada, Danemark, Estonie, États-Unis d'Amérique, Fédération de Russie, Finlande, France, Grèce, Hongrie, Irlande, Italie, Lettonie, Lituanie, Pologne, Portugal, République de Moldova, République tchèque, Roumanie, Royaume-Uni de Grande-Bretagne et d'Irlande du Nord, Slovaquie, Slovénie, Suède et Suisse. La Commission européenne était représentée par Eurostat. Des représentants de l'Organisation de coopération et de développement économiques (OCDE) et de l'Organisation des Nations Unies pour l'alimentation et l'agriculture (FAO), ainsi qu'un représentant de la Mission d'administration intérimaire des Nations Unies au Kosovo (MINUK) ont également participé à la Réunion.

2. La Réunion a adopté l'ordre du jour provisoire.

3. M<sup>me</sup> Marie-Louise Widén (Suède) et M<sup>me</sup> Irena Orešnik (Slovénie) ont été élues respectivement Présidente et Vice-Présidente de la Réunion.

## **ORGANISATION DE LA RÉUNION**

4. Les thèmes de fond ci-après ont été examinés sur la base des communications sollicitées ou proposées et des documents distribués en séance par les pays et les organisations:

- a) Données d'expérience et enseignements (le recensement agricole de 2000; l'interaction entre l'agriculture d'une part, l'environnement et l'espace rural d'autre part; les risques et possibilités afférents à l'utilisation de données administratives et d'autres données n'émanant pas d'enquêtes);
- b) Questions méthodologiques (statistiques du revenu; productivité; quantification, prévision et analyse des disponibilités alimentaires);
- c) Recherche d'une plus grande facilité de consultation des informations sur l'agriculture (utilisation des SIG dans les statistiques agricoles; techniques de présentation et de diffusion des résultats statistiques).

5. Les participants ont été informés des résultats des manifestations ci-après, organisées conjointement par la CEE, Eurostat, la FAO et l'OCDE:

- Septième Séminaire IWG.AGRI sur les statistiques économiques de l'agriculture, Luxembourg, 5-7 juillet 2000;
- Conférence sur les applications de la statistique dans les domaines de l'agriculture et de l'environnement (deuxième Conférence mondiale sur les statistiques agricoles) (CAESAR), Rome, 5-7 juin 2001;
- Réunions satellites organisées par l'IWG.AGRI parallèlement à la CAESAR, Rome, 4 et 8 juin 2001;
- Progrès en matière de consultation de données communes entre les organisations internationales; et
- Information au sujet des activités qui ont suivi la CAESAR et préparatifs de la troisième Conférence mondiale sur les statistiques agricoles en 2004.

## **RÉSUMÉ DES PRINCIPALES CONCLUSIONS DE LA RÉUNION**

6. Les recommandations en vue des travaux futurs sont énoncées ci-après. Les autres conclusions concernant les thèmes susmentionnés feront l'objet d'un rapport séparé qui sera établi après la Réunion et distribué aux participants mais aussi, sur demande et en anglais uniquement, à toute personne intéressée. Elles seront également accessibles sur le site Web de la Division de statistique de la CEE consacré à la Réunion à l'adresse suivante:

[www.unece.org/stats](http://www.unece.org/stats)

## **TRAVAUX FUTURS**

7. Les préparatifs du Séminaire CEE/EUROSTAT/FAO/OCDE sur les indicateurs agricoles utilisés pour l'analyse économique (Huitième Séminaire IWG.AGRI, Paris, automne 2002) ont

été examinés. La Réunion a convenu de l'ordre du jour provisoire ci-après pour le Séminaire: a) indicateurs ruraux; b) indicateurs agro-environnementaux; c) indicateurs de l'agriculture durable; d) apport de main-d'œuvre et productivité (CEE); e) indicateurs d'une agriculture en évolution; et f) revenu et «comptes verts».

8. Les participants ont recommandé qu'une nouvelle réunion conjointe sur les statistiques alimentaires et agricoles soit organisée en 2002/2003.

9. À l'issue de l'examen d'une proposition du comité du programme, les participants ont recommandé que les thèmes ci-après soient inscrits à l'ordre du jour de la prochaine réunion:

a) Inventaire des faits nouveaux et des besoins futurs dans le domaine des statistiques alimentaires et agricoles:

i) Rôle futur des statistiques agricoles;

ii) Comment répondre aux besoins de statistiques ad hoc et ponctuelles;

b) Besoins des organisations internationales (OMC, CNUCED, EUROSTAT, OCDE, FAO, etc.) en termes de statistiques agricoles aux fins d'élaboration des politiques;

c) Les statistiques liées à la multifonctionnalité, à la durabilité, à la ruralité et à l'environnement et leur interaction avec l'agriculture;

d) Statistiques et analyse des approvisionnements en vivres, de la qualité des produits alimentaires, de la sécurité alimentaire (y compris la traçabilité), des besoins des consommateurs; analyse des flux commerciaux;

e) Les systèmes de classification et leur adaptation aux nouveaux besoins:

– CITI (Classification internationale type par industrie, 2003/2007)

– CPC (Classification centrale de produits)

– Échanges agricoles

• CTCI (Classification type pour le commerce international)

• Modifications du SH (Système harmonisé);

f) Incidences des nouvelles technologies sur la production et la diffusion de statistiques agricoles.

10. Les participants ont aussi proposé d'organiser à Paris, en automne 2002, un atelier IWG.AGRI restreint (d'une journée), immédiatement à la suite du huitième Séminaire IWG.AGRI. Cet atelier devrait être consacré aux points a) et b) susmentionnés. Les résultats de l'Atelier seront exposés et examinés au cours de la Réunion de 2003.

## ANNEX

### **Summary of discussion Joint UNECE/EUROSTAT/FAO/OECD Meeting on Food and Agriculture Statistics in Europe (Geneva, 17-19 October 2001)**

1. Mrs. Marie-Louise Widén (Statistics Sweden) was elected Chairperson and Mrs. Irena Orešnik (Statistical Office of Slovenia) Vice-chairperson of the meeting.

#### **INFORMATION ITEMS**

2. Mr. Giuseppe Caló of Eurostat informed participants about the AgES - Agriculture Economic Statistics, 7th IWG.AGRI (Inter-Secretariat Working Group on Agricultural Statistics) Seminar held in Luxembourg 5-7 July 2000. More than 170 participants all over the world took part in the seminar. He noted the very high quality of the contributions. The outcomes and papers presented at the seminar will be made available on a website (presently under construction). The main achievements of the seminar were better coordination of actions and avoiding waste of resources in the area of agriculture statistics.
3. Mr. Caló also informed the meeting about CAESAR - Conference on Agricultural and Environmental Statistical Applications that took place in Rome from 5 to 7 June 2001. This was the 2<sup>nd</sup> World Conference on Agriculture Statistics. The conference discussed the quality of agricultural statistics, the social and economic aspects of agriculture statistics, relationship between agriculture and environment, role of agricultural censuses, agricultural statistical systems, classifications, survey design, data integration issues, etc. The proceedings of the conference will soon be finalized.
4. Mr. Karlsson of UNECE and Mr. Narain of FAO provided information about the satellite meetings that took place during the CAESAR Conference on June 4 and June 8, 2001. The meeting on 4 June focused on agricultural statistics in the candidate and transition countries. Overviews of agricultural statistical systems in several East European and CIS countries were given and the role and future work of the IWG.AGRI was considered. The 8 June meeting was devoted to issues of concern for developing countries.
5. Mr. Andreas Lindner of OECD informed the meeting about the 8<sup>th</sup> IWG.AGRI Seminar on Agriculture Statistics which is planned to take place in Paris in late 2002 (October-November). The exact dates of the Seminar have not yet been decided. The seminar will focus on agricultural statistics and sustainability. The seminar will be organized in the following six sessions: rural development; sustainable indicators for agriculture; agri-environmental indicators; income and green accounting; indicators of a changing agriculture; and labour productivity.

6. Mr. Rainer Muthmann of EUROSTAT informed the meeting about progress in common data collection among international organizations. The last meeting in 1999 in Geneva discussed these issues and envisaged a more efficient method of data collection and better ways to achieve comparability. The first pilot project – data collection on agricultural price statistics by FAO and EUROSTAT is under way.

7. Mr. Lindner shortly informed about the next World Conference on Agriculture Statistics that is planned to take place in 2004 in Latin-America. ECE, Eurostat, FAO, OECD, ECLAC, ISI, NASS and ISTAT are involved in the preparation. The exact venue is not yet decided as some economic problems can be encountered. Pathfinder mission will be organized to assess the venue.

#### Agenda item 4: Experiences and lessons

##### SESSION 1: The agriculture census 2000

Discussant: Mr. Giuseppe Caló (Eurostat)

##### Invited papers:

“Comparisons between an interviewer conducted Census of Agriculture (1991) and a postal Census of Agriculture (2000)” by Mr. Gerry Brady (Central Statistics Office, Ireland) and “Main characteristics of the Hungarian Census 2000” by Mrs. Eva Laczka (Hungarian Statistical Office).

##### Contributed papers:

“First national census” by Mr. Alikhan Smailov (Agency on Statistics, Kazakhstan);  
“Preparation works for agriculture Census 2002 linked to the National Population and Housing Census 2002” by Mr. Krzysztof Matenko (Central Statistical Office, Poland) and  
“Main directions for improving agriculture statistics in Turkmenistan” by Mrs. Bibijach Vekilova (National Institute of Statistics and Forecasting of Turkmenistan).

8. Mr. G. Caló opened the session and introduced two invited papers that discussed the comparisons between an interviewer conducted census of agriculture (1991) and a postal census of agriculture (2000) in Ireland, and the main characteristics of the Hungarian Agricultural Census of 2000.

9. Mr. Brady’s paper compared the 2000 Census of Agriculture and the previous Census of 1991 highlighting differences in approach and consequences arising from those. The Census in 1991 was conducted by interviews using a list of farmers compiled during the 1991 Census of Population field work. The objective in 1991 was to establish a reliable farm register and benchmark farm activity figures. The complete register of farmers created by the 1991 Census was maintained 1991-2000 using a combination of direct farm surveys, register enquiries and analyses of the Department of Agriculture, Food and Rural Development files.

10. The increasing availability of agricultural data in registers and the budget limitations make it inevitable for CSO to use administrative information to the maximum extent. It was decided to base the 2000 Census on the administrative farm registers to reduce the data collection costs and respondent burden, and to develop a methodology for subsequent farm sample surveys. In comparison to the interviewer based Census in 1991, the 2000 Census provided more timely results and included considerable cost savings. The quality of collected data, however, was lower and required considerably more editing work. The response rate was also lower but can still be considered adequate. The 1991 Census was also easier to manage. However, regardless of the arising problems, the 2000 Census is expected to render considerable benefits for future work. One of its key objectives was to identify a reliable method for using farm registers for the 2001-2009 farm sample surveys and to develop practices to facilitate the use of administrative registers in other statistical areas in the CSO of Ireland. The solutions worked out during the 2000 Census are expected to make the use of administrative registers more efficient for farm sample surveys and during the next Census in 2010.

11. The second paper gave an overview on the implementation of the Agricultural Census in Hungary. The aim of the Agricultural Census 2000 was to survey the economic structure created after the privatization of the land properties. The paper considered the Census's legal background, role of the task forces, design of farms, completeness, division of labour between the Department of Agriculture and HCSO regional directorates and communication. The Hungarian Central Statistical Office was responsible for carrying out the Census, its principles were worked out in consultation with the Ministry of Agriculture and Regional Development, professional associations, research institutes, etc.

12. One of the most difficult tasks in the Census was to ensure the completeness. The changes in the past years and not up to date registry posed difficulties in the survey of businesses. Concerning family farms, which are of small size and produce exclusively for family consumption, it was methodologically difficult to comply with the statistical coverage specification.

13. The huge number of small family farms can be considered one of the main characteristics of the Hungarian Agriculture. For analysing the structure of family farms the gross production value of the units was estimated based on average prices and yields rather than the actual output. The findings showed that most of the family farms turned out extremely low production value. There was only a small percentage of farms where the majority of income of the household originated from agricultural production. Except for the largest farms, the majority of farms depended on other sources of income than agriculture. Such farms serve as part-time agricultural activity.

14. During the discussion it was pointed out that it is preferred to carry out postal census combined with interviews, in particular when it concerns complex agriculture structure. In the case of Ireland where mainly cattle are involved, the census can be done on a postal basis. Obviously, the questions in a postal census have to be modified to this mode of conducting the census.

15. It was also noted that it is valuable to use administrative registers, e.g. registers of farmers that receive grants. To this end the meeting discussed the problems that rise from the fact that there might be differences between administrative and statistical units.

16. The meeting was also informed about the planned agriculture censuses in Poland, Slovakia, Romania and Azerbaijan. As for Poland the link between population and agriculture censuses was stressed. In Poland there are 2 million agriculture holdings and 1 million agriculture plots. For the 1996 agriculture census some 75,000 enumerators were employed. The next census will take place in 2002 according to Eurostat regulations. Azerbaijan raised the problem of how to deal with “pasteur” land for common use.

17. The session concluded that censuses are the corner stones of agriculture statistics but the infrastructure has to be adapted to the local situation.

## SESSION 2 Interaction of agriculture with environment and rural space

Discussant Mr. Denis Chartrand (Statistics Canada)

### Invited papers:

“Greening economic accounts for agriculture - some central issues in creating a new environmentally integrated, satellite account” by Mr. Berkeley Hill (University of London) and “Satellite accounts for agriculture and environment: integrating the total economic value. Concepts and first experiences in Switzerland” by Mr. Franz Murbach (Swiss Federal Statistical Office).

18. Mr. Chartrand introduced the two invited papers, discussing some central issues in creating a new environmental satellite account for agriculture, and first experiences in Switzerland using satellite accounts for agriculture and environment.

19. In his presentation, Mr. Hill considered the conceptual problems encountered when aiming to bring together the agri-environmental indicators and “green national accounts”. It should be possible to express in monetary terms any changes in physical environmental characteristics associated with agricultural production. Thus a “green” version of the Economic Accounts for Agriculture (EAA) could be developed which allows to assess the economic impact of agricultural activity in the European Union. The aim is not to discontinue the current EAA but to find additional ways to generate information that is relevant to policy involving agriculture and the environment. Comparison between the conventional and the “green” indicators should cast light onto the environmental implications of agriculture as an economic activity and of the policies directed at agricultural production.

20. The author concluded that substantial discussion of some basic concepts is required for “greening” the EAA and generating internationally comparable figures. This discussion should touch upon problems like identifying the industry group for a “greened” account, developing the conceptual framework and a harmonised methodology for the possible adjustments, and whether

there should be a common list of adjustments to be applied to all countries in the EU and/or OECD. The outcome should be an account that enables to trace the environmental impact of agriculture production.

21. Mr. Murbach's paper gave an overview of the state of the art in Switzerland of agro-environmental accounts, considering multifunctionality of agriculture and implementing a "total" accounting approach. The concept of multifunctionality is used to summarise the functions of agriculture and its externalities to achieve at an indicator evaluating the Total Economic Value (TEV) of agriculture. Mr. Murbach raised several questions in his paper pertaining to the difficulties and controversies linked with the implementation of agri-environmental satellite accounts. These problems concern statistical information about multifunctionality (to what extent should externalities be evaluated in monetary terms, how to achieve international comparability, possible unification of the composite criteria to reach the total economic value of agriculture, etc.). It should be discussed whether the aim of agri-environmental satellite accounts should be to monitor the economic, ecological and social performance of agriculture, or to serve as an accounting tool to quantify the TEV of agriculture, helping to assess the supply and demand of agricultural goods, services and off-market inputs. As the monetary valuation of environmental aspects is very controversial, a possible solution could be to concentrate on assessing trends instead of trying to reach an exact measurement of environmental aspects in monetary terms.

22. During the discussion the problems of data quality and standards of environmental indicators were raised as well as how to undertake regional valuation and the aggregation to total values.

### SESSION 3: Risks and opportunities in the use of administrative and other non-survey data

Discussant: Mr. Rainer Muthmann (Eurostat)

#### Invited papers:

"Use of administrative data for crop and livestock statistics in Austria" by Mr. Franz Göttl (Statistics Austria) and

"Impact of high technology on use of already existing data sources" by Mr. Esa Ikäheimo (Ministry of Agriculture and Forestry, Finland).

23. Mr. Göttl's paper discussed both positive and possible negative effects of the use of administrative data for statistical purposes in different agricultural domains in Austria. He outlined the prerequisites for the transfer of administrative data and issues encountered in statistics on crop and animal production in Austria over the last 6 years.

24. In his presentation Mr. Ikäheimo discussed how Information and Communication Technology makes it possible to better use existing data sources in statistics. This use of data from multiple sources for producing statistics requires a legislative framework, cooperation between institutions and appropriate information systems. The setting up and maintenance of registers calls for good planning taking into account its potential use for statistical purposes.



Cost savings become apparent only later, because exploitation of the new technology requires a lot of development work and costly investments in software and hardware.

25. Statisticians whose work involves the use of multiple data sources need to be familiar with a range of fields encompassing agriculture, statistics and IT. The recruitment of such widely qualified persons is a challenge that the statistical organisations will have to face in the near future. The quality of statistics will become an increasingly prominent issue, as the use of existing data sources distances the compilers of statistics from the original data, making it increasingly difficult to check their quality. The users of statistics require information ever more rapidly, and thus the time available for quality checking is cut to a minimum.

26. High technology facilitates data collection and ensures a better service for the users of statistics because the information can be extracted rapidly from existing databases and made available immediately via the Internet. In the near future, it will also be possible to report to the statistical office via the Internet. Interaction between the compiler and the user of statistics will become closer, which will increase the motivation to respond to statistical surveys.

27. It was noted there is a big difference in the use of administrative data between countries, caused by differences in their “administrative culture”. Before using administrative data on a regular basis, which have the advantage of reducing the response burden of farmers, it is essential to be assured that they are long lived.

28. For economic reasons there might be cases when no other alternatives are possible but to use administrative data, e.g. when there is a need for new statistics but when no new resources are allocated.

29. During the discussion it was also emphasised that before starting to use administrative registers they have to be verified against survey data.

30. Mr. Muthmann pointed out that each subject matter in administrative data management should be considered separately as it is often not possible to develop common solutions applicable to all different areas. Updating of administrative data banks is a very important task. They must be up to date all the time. Due to the changes in the organisation and concepts of administrative registers, ensuring continuity of data is a critical task for the statistical offices. Quality control of data from administrative sources may be more complicated as statisticians are further away from the basic data and often do not have any influence on the quality of the administrative data files. In concluding the discussion, Mr. Muthmann emphasised the need for a strong administrative culture with well-established administrative procedures as well as a good relationship between the Statistical Office and the administrative authorities. There is also a need to maintain independent samples in order to ensure continuity.

SESSION 4: Income statistics

Discussant: Mr. Andreas Lindner (OECD)

Invited papers:

“Valuing farmland: spatial productivity differences and financial solvency” by Mr. Ken Erickson, Mr. Ashok Mishra, Mr. Richard Nehring and Mr. Chuck Moss (USA) presented by Mr. Chuck Moss (University of Florida, USA) and

“Methodological issues in agriculture income measurement in the EU” by Mr. Berkeley Hill (University of London, UK).

Contributed papers:

“Data needs for the rural economy to establish a micro-macro link in Agricultural Policy Analysis: the ISMEA experience” by Ms. Maria Rosaria Napoletano, ISMEA; Ms. Raffaella Castagnini, Club of Applied Economics, University of Verona; Mr. Federico Perali, Department of Economics, University of Verona; and Ms. Cristina Salvioni, Department MQTE, University of Pescara from Italy and

“Global and extended income of Italian rural households: a methodological exposition using SMEA cross-section data” by Ms. Raffaella Castagnini, University of Verona; Ms. Maria Rosaria Napoletano, ISMEA; Mr. Federico Perali, University of Verona; and Ms. Cristina Salvioni, University G. d'Annunzio from Italy.

31. Mr. Moss examined impacts of farmland values on the index numbers used to analyze changes in productivity and competitiveness in USA. Farmland values may be affected by factors that do not concern agricultural policy. His study examined the effect of changes in sector solvency on farmland valuation and the potential impact of spatial differences on productivity. Measurement of these impacts may be complicated by the presence of urban sprawl in the United States. The effect of solvency is important due to the decoupling of farm program payments. Results of his study indicate that urbanization has a significant impact on land values. In order to be able to correctly analyse changes in productivity, this impact should be removed.

32. In his paper Mr. Hill identified key issues that relate to the ability of statistics on agricultural incomes to meet users needs in the evolving conditions of the early 21<sup>st</sup> century. These include a re-examination of what constitutes agricultural production, the coverage of salaried workers in income measurement, and the basic unit in economic accounting. He proposed elements of a strategy that should enable the statistical system to cope with these challenges. Mr. Hill proposed the following strategy: to set up international consultations on methodology, establish more international databases, promote regular consultations between a wide spectrum of users, experts and suppliers, and to further develop a vigorous electronic dissemination policy. The EU countries could, in addition, embed agricultural/farm income statistics within general rural statistics and establish a legal basis for more agricultural income statistics.

33. During the discussion it was stressed that indicators of agriculture income is not necessary indicators of farmers' standard of living. For this other sources of income have to be taken into consideration as well as balance sheet items.

34. In summing up the discussion Mr. Lindner pointed out the difficulties in measuring what is happening in the rural area using income measures. He stressed the importance of consistent methodologies, specifying explicitly for what purpose the particular income measure should be used. The big advantage of the EU system is that the basic rules are in place and the future members know what is expected of them. In order to improve the statistics on agricultural income, the statistical systems have to take into account the changing reality of farmers, having different sources of income.

#### Agenda item 5: Methodological issues

##### SESSION 5: Productivity

Discussant: Mr. Berkeley Hill (University of London)

##### Invited papers:

“Levels of farm sector productivity: an international comparison” by Mr. Eldon Ball, Mr. Jean-Christophe Bureau, Mr. Jean-Pierre Butault and Mr. Richard Nehring, France presented by Mr. Butault (Institute National de la Recherche Agronomique, France);  
“Agricultural productivity in the EU” by Mr. Edward Cook (Eurostat) and  
“FAO's work on estimates of value of agriculture production and investment” by Mr. Pratap Narain (FAO).

35. Mr. Butault presented the paper, which was written in cooperation between the US Department of Agriculture and Institut National de la Recherche Agronomique of France. His presentation focussed on the relative levels of farm sector productivity for the United States and nine European Union countries for the period 1973 to 1993.

36. At the beginning of the study period, Belgium had the highest level of productivity relative to the United States at 1.689. Ireland had the lowest relative productivity at 0.759. By 1993, the range of levels had narrowed significantly, from 0.709 for Ireland to 1.392 for the Netherlands. Further evidence of convergence can be seen in the coefficient of variation, which fell steadily from 0.261 in 1973 to 0.227 in 1993. Results based on regression analysis show a highly significant inverse relation between the rate of productivity convergence and the initial level of productivity, consistent with the “catch-up” hypothesis. The results generally support the existence of a positive interaction between capital accumulation and productivity growth, suggesting embodiment.

37. Mr. Cook's paper gave an overview on Eurostat's activities in developing agricultural productivity indicators for the Member States of the European Union as a response to the Common Agricultural Policy reform “Agenda 2000” and in anticipation of greater interest from

policy makers and analysts alike. The revised Economic Accounts for Agriculture (EAA'97) and its coherent counterpart, Agricultural Labour Input (ALI) statistics, provide a harmonised framework within which timely data can be used for the construction of productivity indicators. A new Chapter on agricultural productivity has been added to the report. The Income Indicators that are constructed from the EAA and ALI are themselves a form of productivity indicator that measures the health of the agricultural industry in the European Union.

38. Discussions with Member States converge towards two agricultural productivity indicators, although the final form of these is still being researched and depends to a large degree on the availability of data. Further progress is needed to prepare a final form of these productivity indicators in the year ahead so that more robust derived productivity data and more concise analyses can be presented in the next income report. In the interim, Eurostat considers that there is a need to put forward the development work, the basic data and the partial and provisional derived productivity data in order to further improve discussions.

39. Mr. Narain concentrated on FAO's work on estimates of value of agricultural production and investment. Analysts and policy makers have felt the need for the estimates of value of agricultural production and investment to determine efforts required to reach a given target and to quantify resources. The FAO has been working in this direction for a long time. The paper made a review of the existing work by looking at the concepts and definitions of related data-sets/estimates required by the analysts and the existing estimates. It goes a step further to define current approach to the work to improve the availability of required data.

40. During the discussion it was pointed out that in order to better understand the competitive situation of countries, more attention should be paid to produce official productivity measures. The majority of EU countries have no such official statistics. Furthermore, it was stressed the need to express the production factors at PPPs and, if possible, to use quality adjusted labour input.

41. As for capital stock statistics and consumptions of capital service, a lot more research has to be done in order to estimate true service lives of assets.

#### Agenda item 5: Methodological issues (continued)

#### SESSION 6: Measuring, forecasting and analysis of food supplies

Discussant: Mr. Kristian Hjulsgaard (Statistics Denmark)

#### Invited papers:

“Data quality as a limiting factor in the measuring and analysis of food supplies - FAO's Africa experience” by Mr. Vincent Ngendakumana (FAO);

“Basic statistics needed for measuring food supply and food quality” by Mrs. Tarja Korttesmaa (Ministry of Agriculture and Forestry, Finland) presented by Mr. Esa Ikäheimo (Ministry of Agriculture and Forestry, Finland) and

“The merger of the UK National Food Survey with its Household Budget Survey” by Mr. Stan Speller (Department of Environment, Food and Rural Affairs, United Kingdom).

Contributed papers:

“Food supply in Azerbaijan” by Mr. Seyfaddin Yusifov (State Statistical Committee of Azerbaijan) and

“Review of food balance sheets in Yugoslavia” by Mrs. Vidosava Lukic (Federal Statistical Office, The Federal Republic of Yugoslavia).

42. Mr. Ngendakumana gave a broad overview of the problems which FAO faces in measuring food supply in African countries. The paper pinpointed the purpose and importance of FAO basic statistics and presented the methodology for measuring food supply. It also reviewed food supply in Africa and attempted to evaluate the agriculture data quality used for measuring food supply.

43. Mr. Ngendakumana outlined the constraints to the development of sustainable agricultural statistics systems in Africa, namely poor co-ordination of scarce resources, especially of donor assistance; programmes reflecting the interests of donors rather than those of the country; non-sustainability of externally funded programmes; lack of trained manpower, high turnover of staff from statistical systems and poor management practices.

44. In his presentation of Mrs. Kortessmaa’s paper, Mr. Ikäheimo analysed the basic statistics needed for measuring food supply and food quality in Finland. It was explained that food consumption in Finland is depicted by a total calculation in the form of a food balance sheet that enables us to monitor changes in consumption in the long term. The calculation establishes the production, changes in stocks, foreign trade and domestic utilisation of foodstuffs. Domestic utilisation is further divided into use of seeds, animal feed and food, and manufacture for food and non-food uses. The information for the balance sheet is assembled from various sources. The reliability and completeness of the final data are thus largely dependent on the quality of the basic statistics used.

45. The paper concluded that a computation based on a wide variety of statistics, such as that used in the food balance sheet, provides a convenient way of monitoring the consumption of all food groups together with the consumption of total energy and nutrients. A balance-sheet type tabulation reveals any statistical inconsistencies, and so also serves as a measure of the quality of the statistics. When estimated from a food balance sheet, changes observed in food consumption tend to be logical, and there are no particularly large unexplained changes between the years. The quality of the statistics is thus relatively good.

46. Mr. Ikäheimo also said that using basic statistics in the compilation of other statistics shows clearly how important it is that the data should be both accurate and sufficiently comprehensive. The growing volumes of imports and increasing internationalisation of businesses have, however, made it more difficult to acquire information in recent years, in particular for any but the basic statistics. The greater range of products, for example, of those

based on milk or vegetable fat, presents its own challenge to compilers of statistics and the use of the statistics for other purposes.

47. Mr. Speller's paper discussed the aspects of the merger of the UK National Food Survey and Family Expenditure Survey, the work on which started in summer 1997. After passing a series of check-points, the merged survey went live on 1 April 2001. The paper discussed the problems encountered and their solutions.

48. Mr. Hjulsager summarized the discussion concluding that there was no doubt about the need for basic statistics on food supply. The basic methodology for collecting food supply data is well existing but other kind of data is needed, also on quality in food production, quantities in household consumption etc.

#### Agenda item 6: Making agricultural information more user friendly

##### SESSION 7 Interaction of agriculture with environment and rural space

Discussant: Mr. Christian Gay (Ministry of Agriculture and Fishery, France)

#### Invited papers:

“Expanding GIS applications through partnering” by Rich Allen (National Agricultural Statistics Service, United States) and

“Integration of georeferenced and statistical data: the role of GIS for spatialisation, restructuring and elaboration of agri-environmental indicators” by Mr. Claude Vidal (Eurostat), Mr.

Jacques Delincé (Joint Research Center (Ispra)), and Mr. Daniel Rase (Eurostat) presented by Mr. Vidal.

#### Contributed paper:

“Presentation of the basic farm structure survey 2000 using GIS: A case study in some regions of Greece” by Ms. Vassiliki Benaki and Mr. T. Tsiligiridis (National Statistical Service of Greece).

49. Mr. Allen's paper provided an overview of the present and possible applications of Geographic Information Systems (GIS) in agricultural statistics, the practical and legal concerns that statistical offices must address when adopting and implementing GIS, and the approach of the NASS to expand its capability for creating GIS and remote sensing products. The application of GIS allows NASS to present more informative and attractive data products to users, set up new research and operational projects based on spatial relationships and to improve sampling, editing and analysis.

50. Statistical organisations have several organizational and legal concerns when releasing GIS products. Confidentiality rules must be developed for GIS displays of data. Furthermore, legal arrangements often prohibit statistical offices from creating proprietary products. Statistical offices have to be careful when releasing GIS products as they might provide marketing

advantages to specific firms. Therefore NASS policy is to release the GIS products only for public consumption.

51. GIS allows also to improve statistics for all customers through internal GIS applications, like improving sampling, determining adjustments to reported data, better understanding current data relationships and changes over time. For example, the handling of specific location data for concentrated livestock production can provide an opportunity to utilize the data internally for sampling and estimation. These data can also be used to set up contingency plans for possible Foot and Mouth outbreaks.

52. NASS has been a leader in the fields of using remote sensing for crop identification, creating satellite based data products and GIS applications. However, these efforts have been restricted to research and demonstration levels because of personnel and budget limitations. In these conditions it has proved efficient to establish partnerships with other governmental and research organizations. The approach has been very successful. There has been great interest in the cropland data layer products on CD-ROM. The data has been used for business locations decisions and broad planning purposes. The experience has been encouraging: the customers are receiving a useful product and NASS has been able to more broadly serve agriculture without an increase in staffing or budget.

53. The paper prepared jointly by Eurostat and the Joint Research Centre (Ispra) considered the role of GIS in elaboration of agri-environmental indicators and making agricultural information more user-friendly. GIS has an important role in improving communication, especially with policy makers and/or the public, giving more future in the use of statistical data. Users are often interested in data not according to the usual administrative breakdown but according to some functional areas. GIS constitutes a common dissemination tool able to link existing data from different sources at a more precise level than the one used until now. Also, an image provides a synthetic overview of complex information which is easily readable to a wider public. This is important when indicators are intended for territorial decisions and policy makers.

54. The EU Commission has asserted its interest in GIS in the framework of strategies for giving effect to environmental integration and sustainable development. The Agriculture Council has an important role to start this by developing agri-environmental indicators to improve transparency, accountability and to support the monitoring, control and evaluation of policies. Possible solutions to the problem of transferring information from one type of territorial division (e.g., administrative division) to another type (e.g. drainage basins) are being evaluated. The projects show that currently available standard software tools are inadequate to solve the problem.

55. The support measures at European level to encourage more environment friendly production methods require appropriate tools to monitor their efficient use. The changes in farmland and their influence on biodiversity raise questions about the relationship between agriculture and environment and the future basis for the European sustainable agriculture. In several countries, the use of GIS has helped to improve the way the farmers' aid applications are processed and strengthen the checks of these payments. In addition, the use of GIS in the area of

agriculture statistics can bring along several benefits: data integration of maps and statistical/administrative data sources will enrich both data sets, regression estimates and/or stratification will allow better efficiency in term of precision, sample sizes and costs, and new statistics or indicators can be envisaged, answering to actual needs, without additional data collection. However, although the GIS technique today is more powerful than ever, more work remains to be done in order to fully exploit the potential of the actual collected statistical data.

56. The advantages of using GIS were stressed. In the future their cost-effectiveness will be further improved. In the discussion the need for preparing an international manual on GIS was raised.

#### SESSION 8: Techniques for presentation and dissemination of statistical results

Discussant: Mr. Peter Helm (Ministry of Agriculture and Fisheries and Food, United Kingdom)

##### Invited papers:

“Presentation and dissemination of agriculture statistics in Sweden” by Mrs. Berit Olsson (Statistics Sweden) and

“Strategies for publishing and disseminating agriculture statistics in Canada” by Mr. Denis Chartrand and Mr. Mike Trant (Agriculture Division, Statistics Canada) presented by Mr. Chartrand.

57. Mrs. Olsson’s paper discussed presentation and dissemination issues of agricultural statistics in Sweden. The Swedish Government decided that Sweden’s Statistical Databases should be available free of charge on the Internet from 2000 onwards (in fact, they have been accessible via the Website since 1997). The paper summarised the main principles of present publishing policy of Statistics Sweden. Internet dissemination has an important role in that and serves as the primary dissemination channel. The official statistics for which Statistics Sweden is responsible and which are currently issued in printed Statistical Reports (SR) are to be presented on Statistics Sweden’s website. The new web SRs will be standardised in terms of structure and design and will be available in two formats: one for reading on-screen and one for printout.

58. Statistics Sweden’s website is also to show all press releases, together with a selection of the statistics for which there is most demand, product by product. Information will be shown in a standardised form. The official statistics for which Statistics Sweden is responsible may be presented in other forms as well, e.g. in publications on special topics and yearbooks, provided that they have been published on the website as specified above.

59. Mr. Chartrand’s paper on strategies for publishing and disseminating agriculture statistics in Canada stressed the importance of these activities as one of the most essential phases of the statistical program of any statistical organization. Carefully planned strategies are intended to help clients access easily and use effectively the collected data to shed light on policy issues or help analyze important changes in the areas of interest. It is essential that dissemination



strategies be flexible enough to satisfy the needs of different users and take into account the requirements of various situations.

60. The basic principles guiding the dissemination strategies in Statistics Canada are closely linked to the different aspects of data quality thus putting great emphasis on providing users with high quality data. The statistical outputs should be relevant, accurate, timely, accessible, coherent, accompanied by well documented definitions, concepts and data limitations. Impartiality and cost-effectiveness, as important parts of the fundamental principles of official statistics, also play an important role in the dissemination principles.

61. The paper highlighted the need to promote the availability of collected data and its accessibility to optimize their value. Finally, it gave insights as to several future strategic initiatives that will be undertaken by Agriculture Division in the coming years to serve its clients and remain relevant and innovative in the area of data dissemination.

62. During the discussion interest was expressed in the client satisfaction survey carried out by Statistics Canada. The monitoring of client needs is very important in order to receive necessary feedback for the adaptation of the dissemination of agriculture statistics to the needs of clients. A continuous monitoring is needed in order to give indications which services and products should be improved.

63. The importance of Internet for dissemination was illustrated in both Canada and Sweden. By using personal portals, which keep track of what the user is interested in, Internet dissemination can be further improved and tailor-made for individual clients.

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