

Recommendations for internationally-comparable statistics on rural development and agricultural household income – Issues in constructing a Handbook on Statistics on Rural Development and Agricultural Household Income

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Abstract

A Handbook on Statistics on Rural Development and Agricultural Household Income has recently been published on behalf of a set of international organisations (Eurostat, FAO, OECD, UNECE, World Bank)¹. Its aim is to promote good practice in these areas of statistics, thereby raising quality, and achieving greater international comparability. This paper, by the Handbook's principal editors, describes the issues that had to be confronted in assembling it, including the main conceptual problems, and how they differed between the two related subject areas (rural development, and agricultural household incomes). In addition to identifying the needs of present and potential users of these statistics and the practicalities of generating them (including the choice of indicators), an outline is given of the process by which international cooperation in the project was secured. As an evolving subject, a further issue is how methodological developments can be incorporated in future editions of the Handbook. The establishment of a 'city group' (under the framework of the UN Statistical Commission) is seen as the main mechanism by which this can be achieved.

1. Introduction

Policymakers, administrators, commentators and researchers concerned with rural areas and the agricultural industry look for good quality in the statistics available to them. Frequently they require comparisons to be drawn over time and space. Quality in statistics reflects a number of well-recognised parameters, such as relevance, accuracy, timeliness, transparency, objectivity, accessibility (see Chapter XIII of UNECE 2005/2007) and a mature statistical system will have found by experience how the trade-offs between these characteristics can be handled. A consensus of “good practice” usually emerges for each particular type of statistics, though this may change over time. Comparability is greatly facilitated if the statistics used to illuminate issues use a common set of basic concepts and definitions.

A number of internationally-accepted standards have been developed to promote quality and achieve comparability. A prominent example is the manual published by a consortium of international statistical organisations in 1993 describing the System of National Accounts (UN 1993). Building on earlier manuals, the SNA93 represents both a description of the System and a reference document for how the principles should be applied. Though not claiming to be complete and exhaustive in all respects, and accepting that flexibility in the face of particular policy issues is a desirable feature of statistics, the SNA93 nevertheless has the status of a well-founded common standard.

¹ Available from www.unece.org/stats/rural

Harmonisation of methodology is particularly important when there is a requirement to generate statistics that cover a number of countries, such as the Member States of the European Union (EU). Eurostat (the Statistical Office of the European Communities) is responsible for achieving this by determining the detailed specifications of EU statistics, in consultation with national statistical authorities. A number of Eurostat publications covering different categories of agricultural statistics are available, such as those relating to the Economic Accounts for Agriculture and labour inputs (Eurostat 2000a, 2000b). Largely for reasons of resourcing, many of the statistics have been given a legal base (that is, Member States are obliged to generate them as a consequence of being part of the EU), with key aspects of the methodology often being set out in the legislation.

Clearly, international standards do not spring into life fully-formed. There has to be a stage of exploration of issues, discussion and consultation before even the basic framework is agreed. Issues of exact definitions and procedures may follow, though these will need to cater for differences in national conditions where these form part of the underlying issues that policy is attempting to address. For example, in the FAO's publication describing its 1996 System of Economic Accounts for Food and Agriculture (SEAFA)(FAO 1996) the material was largely descriptive of the issues involved, though its related Handbook (FAO 2002) took development to a stage further in terms of applicability. This tension between homogeneity and flexibility in statistics is a persistent characteristic of statistics that deal with human behaviour and conditions.

2. Why the need for a Handbook for statistics on rural development and agricultural household income?

The simple answer to why a Handbook for statistics on rural development and agricultural household income was felt necessary was that the Intersecretariat Working Group on Agricultural Statistics (IWG-Agri) perceived the need for guidance on best practice in these topics. Set up in 1991, the IWG-Agri was a vehicle for promoting coordination and cooperation between the United Nations Economic Commission for Europe (UNECE), the Organisation for Economic Co-operation and Development (OECD), FAO and the Statistical Office of the European Communities (Eurostat) in matters of agricultural statistics. Its discussions also involved interested national statistical authorities, including those of the United States of America (US) and Canada, and academic experts. The IWG-Agri held a series of workshops annually, sometimes in association with the European Conference of Agricultural Statisticians (where there was considerable overlap of membership) to discuss issues of mutual interest, initially focusing on statistical problems encountered in eastern Europe, but later broadening to include issues such as gaps in information. Statistics on rural areas and agricultural household income emerged as topics needing development.

A more complete answer must reflect that there is an increasing need for statistics in these two closely related topics. Over the past couple of decades rural development has become a priority area for governments and international organizations. The background to setting the priorities may differ between countries. Among the developed countries the focus is on how to ensure that people in such areas have good living conditions and opportunities and that rural areas are not de-populated (OECD 2005, 2006). It also recognized that “*living rural areas*” play an important role for the environment at large and for the recreation and well-being of the urban population. Funding for rural development has so far been channelled mainly through support for agriculture, much of which is aimed at ensuring an equitable income level for the agricultural population, though some analysts argue that a proactive rural policy should focus on ensuring equal access and equal quality of education and health and on improving other infrastructures. Notwithstanding the fact that the

size of the agricultural population is generally small and dwindling,² this support is of quite remarkable proportions. Almost half of the EU budget, for instance, is still devoted to agriculture, although broader support for rural development is set to increase. Because of this there is a policy need to monitor the income situation of agricultural households both from the perspective of monitoring sectoral performance as well as its impact on rural development.

The policies described above are of course to a varying degree also valid for the developing countries. In addition to these generic agricultural policy elements, many developing countries have a special focus on rural poverty and it is a fact that most of the rural populations are either directly or indirectly dependent on agriculture. In the UN Secretary General's report to the 2003 meeting of the Economic and Social Council (ECOSOC) of the United Nations it was stated that:

“Three quarters of the world's poor live in rural areas of developing countries and depend mainly on agriculture and related activities for their livelihood. In 2025, when the majority of the world population is expected to be urban, 60 per cent of poverty will still be rural. Thus, the millennium development goals of halving the proportion of people living on less than a dollar a day and the proportion of those who suffer from hunger by 2015 cannot be achieved unless rural poverty is urgently reduced” (UN, 2003).

Policy is likely to be more effective if the design and operation of programmes are based on reliable information about the extent of the problems the policy is attempting to tackle and how they are changing over time. The need for better performing policies is also driven by the move towards greater accountability that governments and administrations now face; statistics clearly play an important part in this by helping establish base-lines and in assessing the extent to which policy actions using public funds have led to improvements over time.

In the experience of IWG-Agri, statistics needed to be strengthened in the two areas of rural statistics and agricultural household income. While some countries (or groups of countries) have their own systems in place, at international level there is little consistency, presenting a substantial impediment to the work of organisations such as the OECD that are interested in analysing and comparing, and there has been little exchange of experience of best statistical practice that can be followed by countries that are considering making progress in this area. This is not to imply that there has been no activity in these statistical areas by international organisations. In particular the Canberra Group of experts on household income statistics (comprising *inter alia* representatives of the Luxembourg Income Study (LIS), Eurostat, the International Labour Office (ILO), OECD and the World Bank), have developed and published recommendations, but these do not cover important aspects such as the classification of households into socio-professional groups (of which farmer households could form one)(Canberra Group, 2001). In a series of reports starting as early as in the middle of the 1980s, the OECD has developed a system for international rural development statistics (see list of references). Not all of this, however, is applicable to developing countries, though these have received attention from the United Nations, FAO, and the World Bank, among others.

To summarise, the overarching aim of this Handbook was to enable the benchmarking of ways of collecting data and constructing indicators so that they can be used to assist policy discussion and design. At a practical level, a secondary objective was to make an inventory of national statistics in rural development and farm household income measures.

² In the OECD area, national shares of agricultural employment range from over 20% in Turkey, Greece and Mexico to less than 5% in most other countries. However, it should be noted that in addition to farm employment there are many other activities up-stream and down-stream that depend on primary agricultural production (OECD, 1994a), e.g. food processing industries.

3. Issues in compiling the Handbook – basic approaches

3.1 One handbook for rural statistics and agricultural household income, or two?

Given the concerns within IWG-Agri both with the lack of consistent information on agricultural household income and with deficiencies in rural statistics, an early debate was whether a single Handbook should be aimed for, covering them both, or two publications (with perhaps a shared introduction). It was felt that, on balance, a single volume was to be preferred because of the increasing role played by rural development policy in solving problems in the farming sector and the growing view that agricultural policy should be seen as a subset of rural policy. Separate Handbooks that prolonged the lack of integration of agriculture within broader rural issues were thought to send out inappropriate signals.

However, this decision meant that the Handbook had to adopt rather different approaches for its two elements, and that the volume had to be divided into two distinct Parts. The main difference was that the details of statistics on agricultural household incomes had received much more attention and had reached a degree of international acceptance (largely through the work commissioned by Eurostat to establishing its Income of the Agricultural Households Sector – IAHS – statistics). Therefore it was possible to reach more firm recommendations for international standards (such as the definition of disposable income). In contrast, the Part on rural development remained more descriptive of issues, though reviews of work at international level, including the indicators in use by the major organisations, were also covered.

3.2 One handbook for countries at different levels of economic development?

A case can be made that the Handbook should only apply to countries that share similar institutional structures and socio-economic characteristics. For example, while the nature of the household as an economic and social unit, located in a single dwelling, or may be widely shared (though with some regional variation) in Europe and many other developed countries, this may be inappropriate for conditions in some developing ones. Similarly, where own-consumption is a major destination of agricultural production, the difficulties of using a concept of disposable income based largely on money flows starts to become problematic (difficulties of identification and valuation etc.).

Combining economies at different levels of development presents challenges. Part of the resistance shown to the FAO's initial System of Economic Accounts for Food and Agriculture (SEAFSA)(FAO 1996), despite its impeccable foundations in the SNA93, seems to have stemmed from the primacy it gave to constructing economic accounts from microeconomic surveys of agricultural households. This is the most practical approach in developing countries, whereas in OECD countries the preferred system has been via macroeconomic methodology, but this is only possible where there are established aggregate data sources. Replacing the existing system by rebasing it on the real institutional units was thought to be inappropriate for developed countries, though a case can be made that such an approach should be pursued at least as a supplement to the activity-based Economic Accounts for Agriculture. Indeed, any development of statistics for the incomes of agricultural households presumes a set of accounts based on this type of institutional unit. Nevertheless, it was felt that, ideally, the Handbook should have a universal applicability (much as the SNA93 has). Many of the problems encountered in OECD countries would, sooner or later, need to be confronted elsewhere.

Though FAO was represented within the IWG-Agri, in practice the origins of the Handbook lay largely with organisations and individuals working in OECD countries. Efforts were made to have a wider coverage of developing countries but, in practice, inputs relating to them only started to

come through at a fairly late stage of compiling the Handbook. This necessitated an intensive period of writing by staff recruited by UNECE specially to deal with this material. Despite this work, the editors remain aware that the degrees of treatment in the published version (in electronic form issued in late 2005 and in hard copy in 2007) are unequal. Improvements to the Handbook in its applicability to developing countries form part of the work plan for the period after 2007.

3.3 Descriptive or prescriptive?

The Handbook was manifestly NOT intended as a recipe book. Rather, the central theme of the Handbook was the exploration of good practice in statistics, as these are far more likely to have value across time and space than the precise solutions used in a particular set of circumstances. In particular, rural areas are highly heterogeneous, and flexibility has to be built into the statistics that aims to service policies for them. Nevertheless, as noted above, it proved more possible to be firmer in outlining and recommending detail when dealing with agricultural household income.

3.4 Final or an evolving working document?

While the Handbook was intended to represent Good Practice as it then stood, and to contain up-to-date inventories of rural and agricultural household income statistics, it was also acknowledged that both areas were in the process of development. The challenge was therefore to use a form of publication that could be updated easily. To this end initially electronic publication was decided upon, with the Handbook freely accessible and downloadable from both the UNECE and FAO websites. However, a view was subsequently taken that a printed version would increase its profile. This was not seen as incompatible the original intentions and might well increase the spectrum of users.

4. Issues in completing the Handbook - practicalities of achieving the output

The first practical issue was to get agreement that effort should be put into compiling the Handbook. Once that was achieved on the basis of proposals from a small number of key individuals in each of the IWG-Agri organisations, the full IWG-Agri was not thought to be the most efficient way of taking the job further. In 2003, the IWG.Agri agreed to set up a Task Force with a membership consisting of experts from the IWG.Agri, the World Bank, national statistical offices known to be active in these areas, and academia. This initiative was endorsed by the Joint UNECE/Eurostat/FAO/OECD Meeting on Food and Agriculture Statistics that took place in Geneva in July 2003. Subsequently, it was approved by the UN Conference of European Statisticians (CES). The IWG.Agri Task Force met five times: Washington (October 2003), Rome (October 2003), Paris (November 2003), Verona (July 2004), Wye (April 2005) and Rome (June 2005). The Verona and Wye meetings were particularly important events at which drafts of the Handbook were discussed before their final forms were adopted. These also marked a resurgence of interest in the project by the FAO and the World Bank, with implications for the coverage of developing countries.

Two general editors were nominated (Jan Karlsson from UNECE and Berkeley Hill from London University) who gave shape to the two main sections and devised a structure of chapters, with an indicative list of contents for each. They then approached authors who had expressed interest or were acknowledged experts, singly or several who were asked to collaborate, though the editors also acted as the main authors for some chapters. Where material already existed in the public domain, there was a preference to build on it and to incorporate its findings in the Handbook. Reviewers of each chapter were nominated, so that the editorial responsibility was shared, though the general editors took final decisions where necessary. Inevitably when contributors were working in a private capacity, there were problems of meeting deadlines and commitments,

presenting a significant management task. The UNECE acted as the secretariat for the editorial process and provided resources in the form of editorial assistance and a limited amount of research staffing. The Economic Research Service of the US Department of Agriculture (ERS-USDA) also provided some funds to assist with final rounds of the editorial process.

The Task Force presented the Handbook to the UNECE/Eurostat/FAO/OECD Joint Meeting on Food and Agriculture Statistics, which also took place in Rome in June 2005. This Joint Meeting endorsed the Handbook and asked the IWG.AgRI³ to have it disseminated in the autumn of 2005. Subsequently the Handbook received endorsement by the 2006 UN Conference of European Statisticians.

The summer of 2005 was a particularly busy period for the team, not least because there were many late editorial improvements to be incorporated in the run-up to publication in electronic form in September 2005. A degree of urgency was given by the retirements of both editors from their supporting institutions in that month. With final changes incorporated into the electronic files, the availability of the Handbook was announced by a UNECE press release (October, 2005). The web-based version (UNECE 2005) was complemented by CDs for users who preferred it in this form. In addition, the ERS-USDA issued and circulated a brochure and made the Handbook available as CDs. In 2006 the UNECE proposed that a hard copy version should be published to augment the electronic version, something accepted by the remaining partners in IWG.AgRI. In 2007 small editorial changes were made to meet UN standards (mostly relating to internal consistency of terminology and spelling), together with a few corrections. This version is to be issued later in 2007 (UNECE 2007).

5. An outline of the contents of the Handbook

The Handbook falls into two main parts, with a common introduction and final chapter. The first deals with statistics for rural development, and the second with agricultural household income statistics. The contents of both Parts, given in full form as the Annex to this paper, follow a single formula, though with variations to suit the topic.

- Introduction (covering both Parts);

Parts A and B both have the same basic form

- A description of the policies the statistics are intended to serve, on the basis that statistics should be policy-driven;
- A discussion of the main concepts that are behind the statistics, taking as many chapters as is appropriate (see below);
- An inventory of national statistics dealing with this subject, with basic findings;
- A review of data sources.

Finally, covering both parts;

- A review of findings and recommendations of good practice.

There is room here only to illustrate the approach. In the Part dealing with rural statistics, the Handbook sets out some key steps in setting up a system capable of flexible usage to meet the demands of a variety of rural policy aims. The main issues that need to be addressed are:

³ The name of the group was transmogrified into the Intersecretariat Working Group on Agricultural Statistics and Rural Indicators (AWG.AgRI)

- ◆ **Coverage of rural statistics**, in the sense of determining what aspects of rural areas should be described, what are the appropriate indicators for each, and consequently what data are needed.
- ◆ A central issue is the concept of **what constitutes a rural area**, which embraces both the criteria to be used and the territorial unit to which they are applied.
- ◆ **Finding what data exist, who are the owners, and how they are accessed.** Comparing this list with what is needed gives an idea of where gaps in data exist, which in turn can lead to proposals for filling them.
- ◆ **Choice of variables, time periods and basic geographic units** for data aggregation, and the classification of these units into rural and non-rural.
- ◆ **Data acquisition and management:** reviewing organisational issues that need to be addressed when considering the establishment of a system of rural statistics by bringing together data sets from across government.
- ◆ **Structure for the management** of the statistical collection, tabulation and publication of the statistics.

In the specific subject of producing statistics on the income situation of agricultural households and their wealth, a further set of issues have to be tackled. These include:

- ◆ **Defining the household** in terms of the membership and the criteria for belonging to it, which determines the individuals whose incomes are aggregated when creating income indicators at the household level. The concept of a single budget unit (individuals whose incomes and expenditures are shared, such as parents and dependent children) is usually preferable to the group that shares a dwelling (which may contain financially independent adults), though the latter may not be accessible in existing data sources.
- ◆ **Classification of households** into those that are agricultural and those that belong to other socio-professional groups. In practice, different aspects of policy will require alternative classifications. For some purposes the focus will be the incomes of households where farming is the main source of income (that is, it forms the most important element in determining their standard of living). For others there may be a need to have information on the incomes of all operators of farms that meet a particular size criterion (such as the national threshold for inclusion in the EU's Farm Structure Survey) or those that are eligible for support under the EU's Single Farm Payment. These alternatives point to the need for a statistical system that can interrogate its data sources in flexible ways.
- ◆ **Defining income** for which measurement is to take place (total income, disposable income, money income etc.). Where statistics on **wealth** can be produced, there is discussion of the appropriate concept to use. Wealth is an important but often neglected aspect of the economic status of agricultural households.

A general observation is that in any situation the data system is critical to the development of statistics. In most circumstances data collection is the most expensive element, and new data sources are usually not feasible. A focus thus falls on making best use of what currently exists or of developing links and modest additions to surveys that represent good value for the extra resources engaged. Sometimes this results in a danger of miss-use, and the Handbook highlights situations where statisticians need to exercise particular caution.

6. Updating and improvement – the role of the Wye City Group

The IWG.AgRI was affected by the decision in 2005 of the UNECE to withdraw from agricultural statistics and of the OECD to scale down its involvement, concentrating on policy issues (for which it would be a user rather than involved in the supply of agricultural statistics). At its final meeting in Paris in 2006 the Task Force that had sprung from IWG.AgRI accepted the proposal that an alternative institutional home was needed if development of the Handbook was to continue. These proposals included a supplement designed specifically for applying the Handbook in developing countries, but also had to accommodate updating the existing text, improving it as additional information became available, increasing the number of case-studies it contained, and building in the experiences of applying the Handbook.

Of the alternatives, the preferred option was to set up a City Group⁴, called the Wye City Group in acknowledgement of the place in which seminal meetings took place (the Wye campus of Imperial College London, set in the countryside near Ashford, Kent, UK) and whose name was already attached to the Handbook (as the Wye Group). After the preparation of appropriate documentation and verbal presentation, the UN Statistical Commission endorsed this proposal in early 2007, including a Terms of Reference. A series of meetings of this new City Group (the first on 8-9 April, 2008 in York, UK⁵) will develop the Handbook further according to an agreed work plan, which will be reported both to the UN Statistical Commission and the Conference of Agricultural Statisticians.

7. Use of the Handbook

The proof of the value of any handbook is the frequency and intensity of its use. It is clearly too early to expect much in terms of citations in the literature, though hits on the UNECE website for the electronic version and requests for CDs indicate interest. The international profile is likely to be raised when the hard-copy version is published late in 2007.

However, one concrete example of use has been as a foundation document for the study commissioned by Eurostat in 2007 on the feasibility of re-establishing its Income of the Agricultural Households Sector (IAHS) statistics using microeconomic data sources as the prime basis of results (Agra CEAS 2007). This work took the Handbook's definitions of a household and disposable income as a template to test for feasibility in all 27 current Member States. It also adopted the variable geometry of the Handbook when testing the definition of an agricultural household. Basically, this involved assessing the possibility of using not only the conventional "narrow" definition (where farming is the main income source of the household's reference person) but also a selection of alternative broader approaches. Though these included all households with

⁴ According to the UN Statistics Division, in recent years, representatives from national statistical agencies have started to meet informally to address selected problems in statistical methods. Some of these groups have become formally known as "city groups". City groups comprise groups of experts primarily from national statistical agencies. Participation by representatives is voluntary as is the existence of the group itself. Each representative is expected to fund his or her participation in the group. While each group sets its own working procedures, generally a key criterion for participation is the ability of each member to contribute a substantive paper to each meeting of the group. It is usually the responsibility of the host to prepare a volume of proceedings. The host country may change after each meeting. While requiring precise terms of reference approved by the UN Statistical Commission, city groups set their own working agendas. Since 1997 the Statistical Commission has discussed regularly the work of the city groups. It reviews the accomplishments of existing groups and examines the terms of reference for proposed new groups. Based on this it encourages the existing groups to continue their work and identifies a number of critical problems around which new city groups might be formed.

⁵ The host is the UK Department for Environment, Food and Rural Affairs. (www.defra.gov.uk)

some income from self-employment in farming, a survey of users found there was also interest in income statistics of households with farms that fell into particular categories. For example some were concerned with the income situation of all those whose farms were of sufficient size to qualify for inclusion in the EU's Farm Structure Survey, or who received support from the Common Agricultural Policy (especially those eligible to receive the Single Farm Payment), or whose agricultural holdings fell into the "commercial" operations that are covered by the EU's Farm Accountancy Data Network (FADN/RICA).

To a degree this use represented the closing of a circle, because the methodology lying behind Eurostat's original set of IAHS statistics (Eurostat 1990, 1995) had to confront these key definitional issues. While the solutions then offered were more appropriate to the macroeconomic approach then favoured, they informed substantially the thinking that lay behind the later UNECE Handbook when tackling issues of key definitions.

As the Handbook notes, data availability is critical to the establishment of better statistics. Though surveys of farm businesses, general household surveys and tax records exist throughout the EU, Member States vary greatly in their abilities to generate reliable income results for farm households from them. The feasibility study estimated the costs in each country of additional surveys to fill data gaps; these were more apparent in some countries than others, and applied more to the broader coverages of agricultural households than to the narrow one. Overall these costs (per year) were of a similar order to those of the EU's annual Survey of Incomes and Living Conditions (EU-SILC), a general household survey that collects income details from individuals in a panel of households.

If the EU accepts that such expenditure is justified by the improved performance of the CAP that could result, the Handbook could reasonably claim to be the foundation of a greatly improved EU-wide system for measuring incomes in agriculture. The adoption of its recommendations in other countries could lead to better international comparisons generally.

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