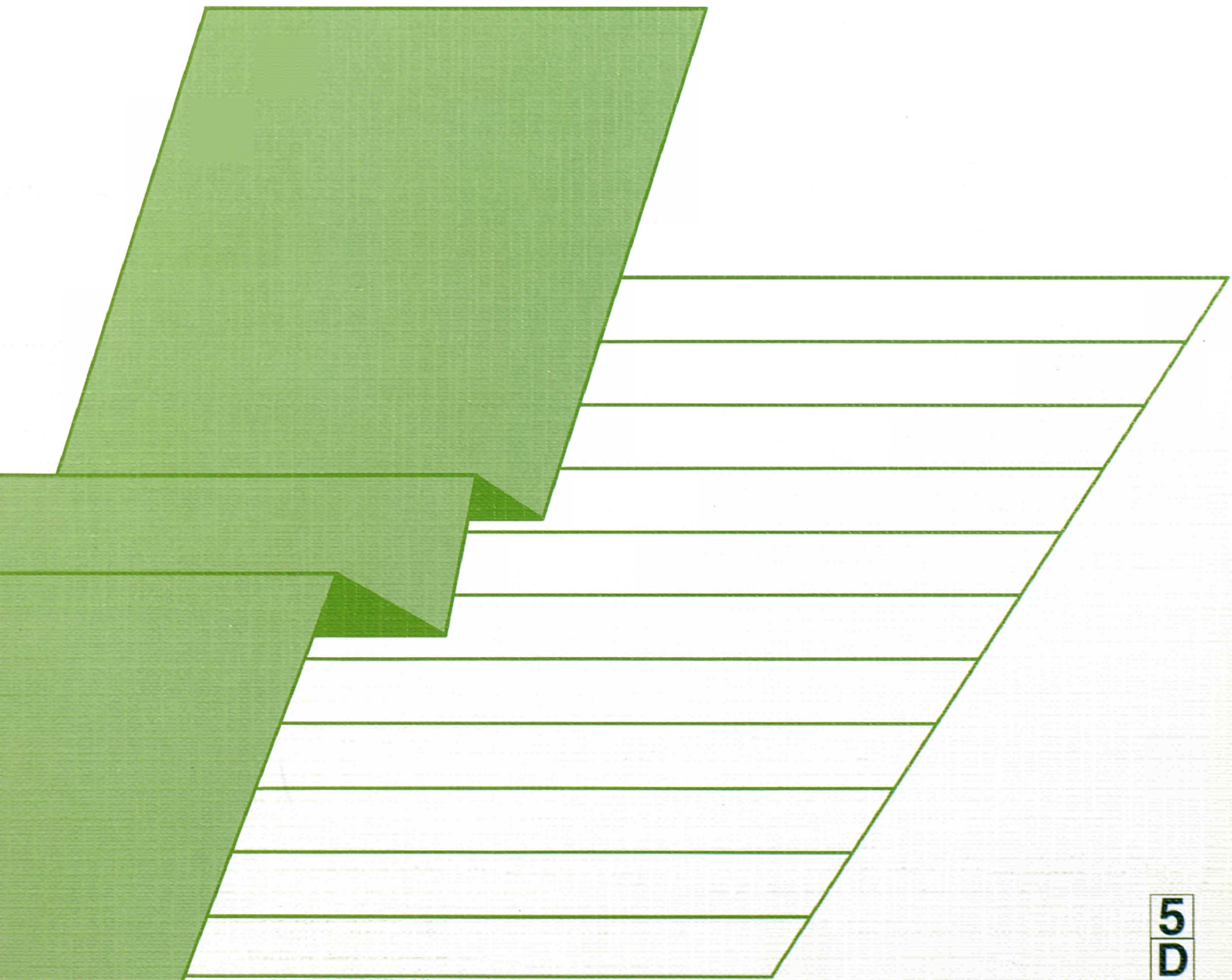


**TOTAL INCOME
OF AGRICULTURAL
HOUSEHOLDS:
PROGRESS IN 1993**



TOTAL INCOME OF AGRICULTURAL HOUSEHOLDS: PROGRESS IN 1993

Berkeley HILL
Wye College
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May 1994

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SUMMARY

The Total Income of Agricultural Households (TIAH) project is now in its early operational phase. Member States are applying the methodology that was designed and agreed by the Working Party on the Economic Accounts for Agriculture. A few countries have considerable experience of estimating the total and disposable incomes of agricultural households within the framework of national accounts while for others not only is the exercise new but suitable data sources have to be built up. The first set of results covering Member States on a country-by-country basis was published in 1992 (*Total Income of Agricultural Households 1992 Report*) together with a summary of the main findings at European Union level. Since then there have been developments not only in terms of the updating of results and improving their quantity but also in some of the methodology. These methodological changes carry implications for the interpretation of results and for the future development of the TIAH project.

The main methodological developments involve:

- revision of the TIAH target definition of an agricultural household ("narrow" definition) to one in which farming is the main source of income of a reference person (typically the head of household);
- adoption of a breakdown of non-agricultural households into a standard set of socio-professional groups for the purpose of drawing comparisons with the income of agricultural households;
- the provision of a "broad" definition of an agricultural household for use within the TIAH methodology, comprising one in which any household member has some income from farming (other than just income in kind).

The estimation of results based on a "broad" definition of an agricultural household is seen as providing useful additional information to policy-makers. However, it is supplementary to the "narrow" definition that remains central to the TIAH project and its objectives. In particular, the disaggregation of households into socio-professional groups for income comparison purposes (of which agricultural households form one group) requires the use of such a "narrow" approach.

Existing information on the implications of applying the "broad" definition in Ireland and Denmark is reviewed together with results from new studies from the Netherlands and Germany. In each country the use of the "broad" definition expanded the number of households covered compared with the number that qualified under the revised "narrow" definition by bringing in households which had some farming income but where farming was *not* the main income of the head of household (termed "marginal" households), though the extent varied substantially. In Ireland "marginal" households were particularly important; they accounted for 59% of the number of households with some farming income in 1987. Elsewhere they were less relatively numerous; in Denmark the figure was 17% (1988), in the Netherlands 36% (1988) and in Germany 42% (1983). Perhaps of even greater significance is the different impacts these two definitions had on average income levels. In Ireland and the Netherlands the use of the "broad" definition lowered the average household net disposable income (by 18% and 21% respectively), implying that the "marginal" households had lower average incomes than agricultural households narrowly defined (though in the Netherlands they were still above the national all-households average). In Denmark the income level was almost unchanged. However, in Germany the average income was increased by 5%. Such diversity should prevent any quick assumptions about the relative results from using the "narrow" and "broad" definitions and points to the need for results to be available from each Member State. The differing social, economic and agricultural structures seem likely to require each country to be considered individually, at least until more comprehensive information is available.

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GLOSSARY

ASC	Agricultural Statistics Committee
EAA	Economic Accounts for Agriculture
ESA	European System of Integrated Economic Accounts
EU	European Union (formerly the European Community)
Eurostat	Statistical Office of the European Communities
FADN	Farm Accountancy Data Network (the annual survey of some 60,000 agricultural holdings in the EU)
FBS	Family Budgets Survey
FSS	Farm Structure Survey
RICA	French acronym for FADN
SNA	(United Nations) System of National Accounts
TIAH	Total Income of Agricultural Households project
Working Party	In the context of the TIAH project, the Working Party on the Economic Accounts for Agriculture, responsible for the development of the project

CHAPTER ONE: INTRODUCTION TO THE TIAH PROJECT AND GUIDE TO DOCUMENTATION

Berkeley HILL¹

1.1 Background to the Total Income of Agricultural Households (TIAH) project

1.1.1 Changes occurring within the agricultural industry, partly as the result of evolving economic conditions but also flowing from the reorientation of the Common Agricultural Policy, have highlighted the need for reliable statistics on the income situation of agricultural households. The system of aggregate Economic Accounts for Agriculture (EAA) enables Eurostat to calculate a range of income indicators (Indicators 1, 2 and 3) for each Member State and for the entire European Union (EU) that play an important role in the monitoring of the CAP. However, these relate solely to the income from agricultural production.

1.1.2 Statistics from the EU's Farm Structure Survey and other sources indicate that many operators of agricultural holdings have other gainful activities from which they derive some income, and some farmers and their families will also be in receipt of social transfers (particularly old-age pensions), property income and other receipts that can affect their overall economic situation. These non-agricultural (in the strict sense) sources of income appear to be increasing as farmers diversify their range of activities and as the incidence of pluriactivity rises over time, developments that are encouraged by policies directed at farming and at the rural economy through the enlarged Structural Funds of the EU. The reforms to the CAP introduced in 1992 seem likely to accelerate this diversification of income sources among farm households.

1.1.3 It is becoming clear that, in addition to the established indicators of income relating to agricultural production, policy-making requires a more complete picture of the overall income situation of agricultural households that covers all income sources and includes measures of the deductions from income taken by taxation and similar compulsory payments. Anticipating the emerging need for this additional income information, in 1985 Eurostat proposed the Total Income of Agricultural Households (TIAH) project. This was supported by the European Community's Agricultural Statistics Committee. The project was conceived within the framework of national accounts, in particular the Distribution of Income Account of the household sector, of which agricultural households can be considered a sub-sector. This Account has, as its balancing item, (Net) Disposable Income. Responsibility for developing the project was given to the Working Party on the Economic Accounts for Agriculture (hereafter shortened to the Working Party), consisting of the representatives of Member States (typically drawn from national ministries of agriculture or statistics offices, or both) and Eurostat, with representation from the Commission's Directorate-General for Agriculture.

1.1.4 The broad aim of the TIAH project, as clarified in discussions, is to produce statistics on the overall income situation of farm households against which policy can be monitored and developments considered; providing data for the management of individual policy instruments is not seen as a function. In specific terms the objectives of the TIAH project are as follows:

¹ Wye College, University of London. External Expert to the TIAH project.

Objectives of the TIAH project

To generate an aggregate income measure, using harmonised methodology, in order to:

- (i) monitor the year-to-year changes in the total income of agricultural households at aggregate level in Member States;*
- (ii) monitor the changing composition of income, especially income from the agricultural holding, from other gainful activities, from property and from welfare transfers;*
- (iii) enable comparisons to be made in the development of total incomes of agricultural households per unit (household, household member, consumer unit) with those of other socio-professional groups;*
- (iv) enable comparisons to be made between the absolute incomes of farmers and other socio-professional groups, on a per unit basis.*

1.2 Stages in the progress of the TIAH project

1.2.1 The TIAH project has undergone an establishment phase and is now in the early part of its operation as a component of the statistical information system of the European Union. Its progress can best be traced by the major publications that have been produced. These are;

- (i) Hill, Berkeley (1988) ***Total Incomes of Agricultural Households: Existing information and proposed methodology for a harmonised aggregate indicator.*** Theme 5 Series D. Luxembourg: Eurostat. This collated existing estimates of total and disposable incomes of agricultural households in Member States, identified actual and potential data sources, and reviewed the alternative ways in which aggregate results could be calculated.
- (ii) Eurostat (1990) ***Manual on the Total Income of Agricultural Households.*** Theme 5 Series E. Luxembourg: Eurostat. This sets out the methodology, agreed by Member States, by which TIAH results were to be estimated. This is in the form of target definitions. Central among these are the definition of income and of what constitutes an agricultural household.
- (iii) Hill, Berkeley (1992) ***Total Income of Agricultural Households: 1992 Report.*** Theme 5 Series C. Luxembourg: Eurostat. This reviews the methodology and first results from the TIAH project on a country-by-country basis. The interpretation of results must bear in mind that complete harmonisation has not yet been achieved. Nevertheless, some general patterns can be discerned. These may be summarised as follows:
 - (a) Agricultural households (as defined in the TIAH project, see below) are shown to be recipients of substantial amounts of income from outside agriculture. Though typically only about a half to two thirds of the total comes from farming, there are substantial differences between Member States and some between years. Countries in which less than half of the total household income came from farming (in the latest year for which information is available) include Denmark, Germany, Spain and Italy. At the other end of the spectrum, with more than two thirds coming from farming, are Ireland, the Netherlands and Portugal.
 - (b) The total household income of agricultural households is more stable than the income from independent agricultural activity (farming). Non-agricultural income (taken together) is less variable from year to year than is farming income. Disposable income seems to be less stable than total income, but the relationship between the two depends on a variety of factors, including the way that taxation is levied.
 - (c) Countries differ in the share of household income taken from agricultural households in taxation and other deductions, so that the same average total income figure can imply different levels of disposable income in different Member States. At one extreme are Germany and

Denmark, where more than a quarter is taken, and at the other Greece, Spain, Ireland and Portugal, where the estimates suggest that only a tenth or less of household income is removed in this way.

- (d) For those countries in which comparisons are possible, agricultural households appear to have average disposable incomes that are typically higher than the all-household average. The relative position is eroded or reversed when income per household member or per consumer unit is examined. In Member States that have information extending over several decades (Germany and France, though in the latter case there are breaks in the methodology) the relative disposable income situation of agricultural households seems to have been deteriorating over time.

In addition, the annual *Agricultural Income* report, that gives the indicators of income for the agricultural production branch of the economy, has since 1987 contained a brief chapter on the TIAH project. Many internal working papers have been produced to form the basis of discussions by the Working Party on the direction in which methodology should develop.

1.3 Progress reported

1.3.1 This 1993 progress report will not repeat what is contained in the publications listed above. Rather, it concentrates on more recent developments in methodology and new information. In particular it is concerned with the central issue of what constitutes an agricultural household and therefore which households have their incomes measured. As will be seen later, this issue of definition is critical both to the number of households that are classed as agricultural and to the average levels and compositions of income. The TIAH project is primarily concerned with systems of household classification that would allow a complete disaggregation of all households into socio-professional groups, with no possibility of a household qualifying for more than one group. Various systems are possible, discussed later. Attention has so far centred on the use of a definition in which an agricultural household is taken as one where farming is the main source of income of the household's reference person (usually the person contributing the largest amount to the household income). However, this "narrow" definition means that some households that operate holdings are not classed as agricultural households because the main source of income of their head of household is not from the holding but from some other source. The proportion of households with holdings that are excluded varies between Member States. In some (Denmark and the Netherlands) only about one fifth of households are excluded, but in others fewer than half of the holdings appear to be operated by households that would be classed as agricultural. This has resulted in a request by the Directorate-General for Agriculture in the Commission (DG VI) for supplementary results to be calculated using a "broad" approach that includes all households associated with an agricultural holding. Again several approaches to defining the "broad" agricultural household are possible, and this Report describes the outcome of discussions between the Member States and Eurostat on the preferred option and the possibility of calculating results on this basis. However, the "narrow" definition of an agricultural household remains central to the TIAH methodology and the basis on which results are presently calculated.

1.3.2 Two studies were commissioned by Eurostat on the use of alternative definitions of an agricultural household and, in particular, the implications of the use of a "broad" definition in addition to the TIAH's "narrow" approach. These involved two countries that have exceptionally complete and flexible data sources (the Netherlands and Germany) and the work was undertaken by the relevant national statistical authority (the Centraal Bureau voor de Statistiek in the Netherlands and the Statistisches Bundesamt in Germany). Reports from these studies are the basis of separate chapters in this publication.

1.3.3 Other steps have been taken in 1993 that are expected to enhance the quality and usefulness of TIAH results. Close liaison has been maintained with other parts of the Commission that are also concerned, in separate ways, with the income situation of farmers and their households. In particular, this applies to two sections. First there is the Farm Accountancy Data Network (FADN, or RICA), co-ordinated by the

Directorate-General for Agriculture (DG VI) where there are plans to extend the range of questions posed to the 60,000 or so farm businesses that co-operate in this annual survey to cover non-farm income in addition to items leading to farming income. Second, there is Eurostat's Unit E2 (Living Conditions) which is co-ordinating the European Community Household Panel (ECHP) survey, an exercise currently being designed to improve knowledge of incomes and living conditions of households in the European Union (not restricted to agricultural types). These microeconomic projects are potentially complementary to the aggregate approach of the TIAH project and the interchange of ideas at their development stages is intended to enhance this complementarity. Discussions have also been held with the parts of the Commission that are likely users of TIAH information in the design and monitoring of policy.

1.3.4 Late in 1993 a further round of study contracts were agreed with Danmarks Statistik in Copenhagen, the Instituto Nacional de Estadística in Madrid and the Instituto Nacional de Estatística in Lisbon to expand and enhance work under the TIAH project.

CHAPTER TWO: ADVANCES IN AVAILABLE INFORMATION

Berkeley HILL and Edward COOK²

2.1 Introduction

2.1.1 The TIAH project has made substantial progress in developing the harmonised methodology used by Member States to calculate results. As this is applied and results are sent to Eurostat for co-ordination, a TIAH data bank is building up over time. This Chapter shows:

- the extent of the information currently held by Eurostat that has been supplied by Member States, as at the end of 1993;
- additions and improvements to the data bank made since the 1992 TIAH Report;
- the broad nature of the problems still faced in Member States.

2.2 Current content of the data bank

Years covered

2.2.1 At the outset of the TIAH project it was intended that, where possible, results generated using the harmonised TIAH methodology should be produced for each year. Eurostat and the representatives of Member States in the Working Party have agreed that priority should be given to the regular updating of TIAH results as information becomes available and to the improvement of the quality of results. At the end of 1993 the years for which results were held in Eurostat's data bank (that is available as a database on a PC) are shown in Table 2.1 Results from Belgium, received since the TIAH 1992 Report was published, mean that all twelve EU Member States are now represented in the project. However, the coverage varies substantially. Some countries have series of annual data (the longest being Germany's) while others only have a single year. Those for which the first round of TIAH calculations were a special exercise, or involved a survey as the main data source, have generally been less able to provide updated or revised results.

Table 2.1 Years for which results are held in the TIAH data bank

Member State	Years for which results are contained in the TIAH data bank	Change since the TIAH 1992 Report
Belgium	1987	First full set of data
Denmark	1985, 1988	
Germany	1972 to 1992	Four additional years and revision of earlier years
Greece	1982 to 1988	
Spain	1981 to 1986	
France	1984 to 1989 (on comparable basis)	Revisions to 1985-89 results
Ireland	1987	
Italy	1984 to 1988	
Luxembourg	1989	
Netherlands	1981, 1983, 1985, 1987, 1988	Two additional years
Portugal	1980 to 1990	
United Kingdom	1980 to 1989	Three additional years

Note: The table shows the situation as at the end of 1993

² Wye College and Eurostat F-1 respectively.

As can be seen from Table 2.1, new data have been received from five countries. However, these only confirm the trends described in the TIAH 1992 Report and will not be repeated here (for overall findings see 1.2.1 above).

Socio-professional groups covered

2.2.2 For the purpose of comparing the income situation of agricultural households, it is desirable not only to have results for the all-household average in Member States but also to be able to subdivide the non-agricultural households into a number of socio-professional groups. The Working Party has agreed a "minimum list" (of which the main categories are households of farmers, of other self-employed, of employees, of others) and an "extended" list of socio-professional groups for use within the TIAH project; the exact lists and the thinking behind this development of the TIAH methodology are given in Chapter 3. The actual breakdown in the latest sets of results supplied to Eurostat is as shown in Table 2.2. It should be noted that a detailed subdivision for 1988 is available for the Netherlands as a result of the study commissioned by Eurostat, described in Chapter 4.

Table 2.2 Socio-professional groups for which results are held in the TIAH data bank

Member State	Groups currently represented in the TIAH results	Conformation with the target minimum list
Belgium	Agricultural households; non-agricultural households; all households (derived)	Non-agricultural households not yet subdivided
Denmark	More detailed than the minimum list	Conforms with the minimum list
Germany	More detailed than the minimum list	Conforms with the minimum list
Greece	Agricultural households; non-agricultural households, all households (derived)	Non-agricultural households not yet subdivided
Spain	Agricultural households; non-agricultural households; all households	Non-agricultural households not yet subdivided
France	More detailed than the minimum list	Conforms with the minimum list
Ireland	Agricultural households only in the TIAH project (though results for all households can be taken from the national Household Budget Survey)	Falls short of the minimum list
Italy	Corresponds with the minimum list	Corresponds with the minimum list
Luxembourg	Only results for agricultural households supplied to the TIAH project	Falls short of the minimum list
Netherlands	Agricultural households; non-agricultural households, all households (derived)	Non-agricultural households not yet subdivided.
Portugal	Agricultural households; non-agricultural households	Non-agricultural households not yet subdivided
United Kingdom	Coverage does not correspond with the target "narrow" definition of an agricultural household.	Falls short of the minimum list

2.3 Priorities noted by Eurostat for individual Member States and plans for action by Member States.

2.3.1 At the outset of the TIAH project it was found that Member States differed widely in their experience in estimating the total income of their agricultural households. For some (France and Germany) methodologies had been established within the framework of national accounts and results had been published for many years. However, for most this was a new area of statistics. Furthermore, the availability of the basic data from which results could be estimated varied widely. Consequently, while the target

methodology of the TIAH project, consisting of a set of definitions to be applied in generating results, was to be applied universally, flexibility was allowed in the paths that individual Member States were to take. For some countries a macroeconomic approach was preferable, some based results on grossing up information from microeconomic sources (such as surveys of households or farms), while others used combinations of these methods (see the TIAH 1992 Report for a country-by-country review of methodology).

2.3.2 Because of the differing starting points, it is inevitable that the TIAH project is still witnessing an evolution of methodology in individual Member States, particularly those that initially had less experience of work of this type and weaker data sources. Eurostat, in its role as supporter and co-ordinator, has identified on a number of occasions some priorities for methodological development in individual Member States that would improve the quality of national results and hence those of the TIAH project as a whole. The latest set of national priorities was presented and discussed at the Working Party meeting of December, 1992. Intentions for action were described by the representatives of Member States at the July 1993 Working Party meeting, and progress was reviewed and plans updated at the December 1993 meeting. Both the priorities (December 1992) and plans (December 1993) are given in Table 2.3 below. Further sets of priorities and progress reports can be expected.

2.3.3 The list in Table 2.3 does not cover methodological developments relating to the "broad" definition of an agricultural household; this is seen as an extension of the TIAH methodology (rather than an improvement to the existing methodology) and the plans and progress in making estimates on this basis are not yet at a stage that can be reported here (other than in an experimental and restricted form as given in later chapters). The issue of the "broad" definition is taken up in Chapters 3 to 5 of this report.

Table 2.3 Priorities for methodological development, progress and intentions, by Member State

	Priorities identified by Eurostat (December 1992)	Progress and intentions of Member States (as notified at the Working Party meeting of December 1993)
B	Provision of results for 1987	1987 results have now been supplied; results are to be extrapolated to 1988 and 1989 by early 1994.
DK	(i) Revise classification system of households, to be based on income <i>after</i> interest charges; (ii) Update results from 1988; (iii) Explore multi-annual classification.	Progress was limited by lack of resources. Priority items were covered by the new contract arranged in late 1993. Results will be updated to 1991.
D		(i) Revision of results following the 1988 EVS* is proposed; (ii) TIAH results for new "Länder" will be calculated in simplified form early in 1994.
GR	Fill gaps in information, the most important of which are (a) details of the operating surplus from non-agricultural activities of agricultural households and (b) rent and interest paid by non-agricultural households.	In 1994 it is intended to (i) fill data gaps and revise results; (ii) develop analysis by socio-professional group.
E	(i) Revise the method of calculation to incorporate year-to-year changes in the aggregate income from agriculture, and check assumptions; (ii) Fill gaps in numbers of household members and consumer units.	The new contract, agreed in late 1993, is intended to relaunch the TIAH project and tackle the priorities identified.
F		By end of 1993 it is planned to supply provisional results for 1990. Subsequently revisions will be made to results for 1984-89.
IRL	(i) Devise a system for updating the results for 1987; (ii) Generate results for other socio-professional groups.	No action planned until the results of the 1994 Household Budget Survey are available (in 1997).
I	Check internal assumptions of the model used to estimate results.	Results for 1989 and 1990 will be supplied, with perhaps revisions of earlier figures.
L	Provide results for all-households for purpose of comparison with agricultural households.	Bilateral discussion with Eurostat is proposed to assist with progress.
NL		By the end of 1993 results for 1988 based on the Socio-Economic Accounts will be available, using more sophisticated socio-professional groups.
P	(i) Revise the method of calculation to incorporate year-to-year changes in the aggregate income from agriculture and check assumptions; (ii) Investigate the implications for classification and measurement of the current use of gross income.	A methodological study was proposed, with results available in 1994.
UK	(i) Review present and potential data sources; (ii) Review gaps in information (e.g. households with corporate farms, incomes of other socio-professional groups).	A new potential data source (Family Resources Survey) was being investigated.

* In Germany the EVS (Einkommens- und Verbrauchsstichprobe) is the sample survey of income and consumption

CHAPTER THREE: METHODOLOGICAL DEVELOPMENTS

Berkeley HILL

3.1 Introduction

3.1.1 This chapter is concerned with three main methodological developments that have taken place since the *Manual on the Total Income of Agricultural Households* was published in 1990. These are as follows:

- Revision to the target definition of the agricultural household ("narrow" version) that appears in the Manual to one based on the reference person (main income). The implications of this definition are discussed and the compatibility of the revised target definition with the new ESA is described.
- Adoption of a breakdown of non-agricultural households into a standard set of socio-professional groups for the purpose of drawing comparisons with the income of agricultural households.
- The provision for the use of a "broad" definition of an agricultural household within the TIAH methodology, including the rationale for extending the TIAH project to include it and alternative possibilities on which to base this broad approach.

3.2 The target definition of an agricultural household

3.2.1 Under the Methodology set out in the 1990 TIAH Manual, the target methodology for defining an agricultural household was a system based on the income composition of the entire household. Under this system, *an agricultural household is taken to be one in which independent (self-employed) agricultural activity is the main source of income of the entire household*. Agricultural activity is taken to coincide with the definition used in the Economic Accounts for Agriculture; fishing and forestry are excluded.

3.2.2 The choice of this original target classification system was influenced by the proposals then being discussed within the United Nations' System of National Accounts (SNA) that would ultimately be adopted within the European System of Integrated Economic Accounts (ESA). The official position at the time was that, though a division of the household sector was envisaged, the way this was to be done was to be *defined later* (see ESA Manual 251 and repeated in the TIAH Manual) though (informally) a system based on the composition of the entire household income system was favoured. As an interim alternative for the TIAH project, a classification system based on the use of a reference person within the household was acceptable.

3.2.3 When Member States came to apply the TIAH methodology, most found that classification using a reference person was the more feasible in their circumstances, with only Denmark, the Netherlands and Ireland providing results calculated using the original target household classification system. Consequently, the TIAH project has adopted this approach as the basis of harmonisation. The switch has been gradual. On grounds of practicality, in 1990 the Working Party adopted the use of a reference person classification system as a supplement to (not a substitute for) the original target definition (Doc. F/LG/194). Member States in 1991 agreed proposals to harmonise using a reference person system (Doc. F/LG/215). In December 1992 this process was taken a step further when Member States agreed to alter the TIAH Manual of Methodology so that the target definition of an agricultural household became one in which the main source of income of the *reference person* was from independent agricultural activity. The Agricultural Statistics Committee, at its meeting of June 1991, had already agreed to amending the methodology in this way (report to the Working Party of the ASC Meeting, in Doc. F/LG/206). Only the Netherlands appears to have difficulties in using a reference person system, and there is evidence that the retention of the former target system in that country has little impact on the results obtained (see Chapter 4).

3.2.4 The essential portion of the revised text (para 2.6.2 of the TIAH Manual) is as follows:

Agricultural households are all those where the income from independent agricultural activity (011 to 015 in the NACE), net of capital consumption, constitutes the main source of the total income of the household

reference person. In the absence of an internationally applied definition of which household member constitutes the reference person, definitions should correspond to those in national family budget surveys. The revision to the Manual proposes that the reference person will be typically the head of the household or the person contributing most to the household's total income.

3.2.5 Apart from practicality within the TIAH project, there is now some support for the use of a reference person system in the new methodology of national accounting. Discussions within the SNA led to a provisional text in 1992³ that sets out a flexible approach for the disaggregation of the household sector into socio-professional groups; the emphasis falls on the need to choose a system which is appropriate in the circumstances and it is recognised that different methods of subsectoring may be needed for different kinds of analysis and policy making. Though the first option mentioned in this text refers to grouping households according to the largest source of income of the (entire) household, the reference person system is also described; under the reference person system, the approach preferred by SNA is to designate the person with the largest income as the reference person.

3.3 Household income comparisons of different socio-professional groups

3.3.1 Two objectives of the TIAH project, given in the *Manual on the Total Income of Agricultural Households* Theme 5 Series E (1990), explicitly involve comparisons between agricultural households and other socio-professional groups (see 1.1.4 above). These objectives relate to comparing the developments of income and to absolute levels of income. The Manual does not fully solve the question of with which other socio-professional group or groups the income estimates of agricultural households should be compared.

3.3.2 In 1991 Eurostat expressed its intention to put forward for discussion some broad categories into which non-agricultural households might be subdivided, thereby enabling a more detailed comparison of incomes with agricultural households (Doc. F/LG/208). In discussions at the Working Party this form of comparison seemed particularly important to several delegations (Denmark, Germany, France: the latter even considered it the main objective) although very secondary to some others.

Subdivisions of the household sector already in use

3.3.3 Some Member States already subdivide their "private households" sector into sub-sectors for national purposes within the framework of their national accounts (France and Germany in the disaggregation of their household sectors, and the Netherlands within its related Socio-Economic Accounts). In these subdivisions agricultural households typically form one socio-professional group (in some cases also including related but less numerous socio-professional types such forestry and fisheries). These subdivisions are reflected in the results contributed to the TIAH project and that appear in the country chapters of the *Total Income of Agricultural Households 1992 Report*. Some Member States at present, when supplying TIAH results, adopt a simplified form of disaggregation by amalgamating sub-sectors. In other countries, though only results for agricultural and all households (or non-agricultural households) are calculated, the basic information necessary for disaggregation seems to be available (for example, distribution keys are mentioned in national reports that can be applied to economic aggregates in order to estimate the amounts relating to the different socio-professional groups).

3.3.4 An important source of distribution keys in many Member States is the national Family Budget Survey (FBS); in some countries it is a primary data source. Though the methodology of surveys is not fully harmonised across the European Union, the Family Budgets Methodological Handbook and results published by Eurostat as "comparative tables"⁴ use the following standard socio-professional categories for the head of household:

³ *Revised System of National Accounts*, Chapter IV, Institutional Units and Sectors. Secretariat of the United Nations, 18 March 1992. **Provisional**.

⁴ Eurostat (1990) *Family Budgets: Methodological Handbook*. Theme 3 Series C. Eurostat (1990) *Family Budgets: Comparative Tables - FR of Germany, Spain, France, Ireland, Italy, Netherlands*. Theme 3 Series C.

Manual workers in industry and services

Non-manual workers

Self-employed persons in industry and services

Farmers and agricultural workers

Other (head of household not engaged in economic activity)

This constitutes a "minimum" list, common to all Member States. A more detailed breakdown may be available nationally.

3.3.5 The situation concerning what socio-professional groups are in use, or might be used, for a more detailed disaggregation of the household sector as part of the TIAH project, is summarised in Table 3.1. The information is taken from documents sent to Eurostat as part of the project or implied by them.

Choice of socio-professional groups for comparison

3.3.6 The choice of sub-sectors (and the income indicator used) will depend on the purpose for which the comparison is intended. For example, a comparison of the rewards derived from the factors of production used by agriculture and other activities will require a quite different set of indicators from those used to compare personal incomes.⁵ Choice therefore focuses attention on the fundamental aims of the TIAH project.

3.3.7 The disposable income of agricultural households, as measured in the macroeconomic context of the TIAH project, is the residual in the Distribution of Income Account for this household sub-sector. Under the present organisation of national accounts, no distinction is drawn between the functions of households as units of entrepreneurial activity and units of consumption. In practice disposable income is interpreted as indicating personal income, a concept that essentially belongs to the treatment of households as units of consumption. It is used in this manner in the published household sector accounts of Germany and France, and in the Socio-Economic Accounts (SEA) of the Netherlands, in each of which farmer households appear as a separate sub-sector. Disposable income (defined according to microeconomic methodology)⁶ is also used in comparisons of ability to consume or save in published results for Denmark, Netherlands (taxation data), Ireland (Household Budget Survey) and Luxembourg (CEPS study).

3.3.8 If the chosen basis of comparing groups of households is their potential spending power as consumers, then there is no strong reason why restrictions should be placed on the non-agricultural groups chosen for the purpose of comparison. Though there may be particular policy interest in seeing how the incomes of agricultural households compare with, for example, the incomes of small retail traders, there is little inherent reason why their spending power should not be compared with household headed by employed persons, or by persons who are retired or mainly dependent on social transfers for their income. Real differences in costs of living (especially of housing, food and transport) may require caution when drawing inferences about relative potential consumption levels, but this also applies to many other forms of

See also the following, which use the same typology for socio-economic groups: Eurostat (1985) *Family Budgets: Comparative Tables - Federal Republic of Germany, France, Italy, United Kingdom*, Eurostat (1986a) *Family Budgets: Comparative Tables - Netherlands, Belgium, Ireland, Denmark, Greece, Spain*. Eurostat (1986b) *Family Budgets: Comparative Tables* (twelve countries).

⁵ In Commission of the EC (1987) *The Agricultural Situation in the Community 1986 Report* Graph 7 (p40) is labelled "Incomes in agriculture and the general economy, EUR 10" and covers the period 1974 to 1985. Agriculture is represented by real net value-added (at factor cost) per work unit. The general economy is represented by real net domestic product (at factor cost) per person employed. Statements in the text based on Graph 7 might be interpreted by the reader in terms of the changing personal income positions of farmers and non-farmers. This is not what the selected indicators are capable of showing.

⁶ This differs from the macroeconomic methodology which form the basis of the TIAH project mainly in terms of the treatment of some imputed items, transfers between the household sector and non-profit institutions, and the handling of insurance.

comparison (such as disparities in the costs faced by rural and urban households, that may be large)⁷. However, these cost differences are not in essence related to the manner in which the income is generated.

3.3.9 A frequently-heard reservation is that comparisons should not be made between agricultural households (where the main source of income will generally come from independent activity) and households in general, or households of dependent workers (where wages or salary is the main source), because the nature of the income is different. If the basic orientation is one of ability to consume, then how the income is derived is not important, assuming that measurement of all types of income is equally satisfactory (which it may not be). It must be conceded that the way in which income from self-employment is assessed may not be entirely adequate. The convention is to measure income *ex post* and to adopt the Hicksian⁸ approach to personal income; this sees income as the amount available for consumption by an individual that leaves his capital stock undiminished. Although depreciation is deducted in calculating Net Disposable Income, a case could be made that, if self-employed persons are to enjoy the same growth in their incomes that can be anticipated by employees in general from capital accumulation by their employers, then they are required to invest more annually than is necessary to simply maintain their capital stock.

3.3.10 Another reservation is often made on the grounds of differences in risk. Because of the greater riskiness assumed to be associated with self-employment, it can be argued that less of a given income is really disposable than would be the case under waged employment. On the other hand, income from self-employment is often under-recorded, and there may be opportunities for disguising personal consumption as business costs. These (and more) arguments are certainly to be borne in mind and should qualify any interpretation of results. However, they do not seem to be sufficient grounds to stop Net Disposable Incomes being calculated and compared.

⁷ See Kulshreshtha, S. N. (1966) An approach to develop comparisons of farm and non-farm incomes in Canada. *Canadian Journal of Agricultural Economics*, 14(2), 61-76. The arguments are summarised in Hill, B. (1989) *Farm Incomes, Wealth and Agricultural Policy*. Aldershot, UK: Avebury (Gower)

⁸ Hick, J. R. (1946) *Value and Capital: an Inquiry into Some Fundamental Principles of Economic Theory*. Second edition. Oxford University Press.

Table 3.1 Summary of the socio-professional groups currently used in Member States when estimating results for the TIAH project.

Note: results presented to the TIAH project do not, at present, use all the categories mentioned, except in the cases of Denmark, Germany, France and Italy.

Member State	Socio-professional groups used or implied	Notes
Belgium	No details given but the distribution keys used in the present methodology, that include income tax statistics and the Family Budget Survey, imply that some disaggregation of non-agricultural households may be possible.	Results for agric. and non-agric. households supplied to TIAH project
Denmark	Self-employed: <i>agricultural/ non-agricultural (of which manufacturing and construction/ other)</i> (further breakdown of "other" is possible, e.g. retail trade) Wage earners: <i>agricultural/ other</i> All other families (not occupied) All gainfully occupied All families	As given to the TIAH project
Germany	Self-employed: <i>agriculture/ other/total</i> Employed: <i>state employed/ salaried/ waged/total</i> Not employed: <i>main income from unemployment benefits/ old-age pensions/ superannuation and other pensions/ supplementary benefit/ (other)/ total</i> All private households:	As in national accounts and supplied to the TIAH project
Greece	No details given, but as Family Budget Survey is used as a distribution key, the standard set of types should be available	Results for agric. and non-agric.households supplied to TIAH project
Spain	Self-employed: <i>agricultural holder with employees/ agricultural holder without employees/ non-agricultural entrepreneur with employees/ non-agricultural entrepreneur without employees</i> Employed: <i>agricultural managers and supervisors/ other agricultural workers/ non-agricultural managers and supervisors/ middle management/ overseers/ non-agricultural labourers/ armed forces/ unclassified workers</i> Non-working population	Main results supplied to TIAH grouped into agric., non-agric. and all households
France	Self-employed: <i>farmers/ other businessmen</i> Employed: <i>higher management/ middle management/ salaried/ waged</i> Inactive All households	As in National Accounts and supplied to TIAH project
Ireland	Six groups in basic data source (Household Budget Survey): (1) <i>higher professional, lower professional, employer or manager</i> (2) <i>salaried employee, intermediate non-manual worker</i> (3) <i>other non-manual worker</i> (4) <i>skilled manual worker</i> (5) <i>semi-skilled manual worker, unskilled manual worker</i> (6a) <i>farmer, farmer's relative or farm manager</i> (6b) <i>other</i> Other breakdowns include by rural or urban location.	TIAH results at present only relate to agricultural households. All-households figures taken from HBS.
Italy	Self-employed: <i>agriculture/ non-agriculture/(total self-employed)</i> Employed: <i>agriculture or other</i> Retired or other Total	TIAH results for each group now available for 1984-88
Luxembourg	Results at present come from Farm Accounts Survey. The independent CEPS study of households with an economically active head uses the following categories Self-employed: <i>agriculture and viticulture/ industrial and commerce/ liberal professions</i> Employed: <i>manual workers/ office workers (each section divided into local government, state, EEC and international organisations, private, other)</i>	At present only results for agric. households supplied to TIAH project

Table 3.1 continued

Netherlands	The Socio-Economic Accounts have 52 household categories, grouped by source of main income, number of household members, income level and presence of members older than 65 years. The income source classification is as follows: Self-employed (profits) households: <i>agriculture and fishing/ trade, accommodation and catering/ services/ other profits and property income</i> Employed: <i>private sector/ public sector (grouped by size of household)</i> Main income is transfers (pensions etc) Total households	At present only results for agric. and non-agric. households supplied to TIAH project
Portugal	Self-employed households: <i>entrepreneurs in agriculture, forestry, hunting and fisheries/ non-agricultural entrepreneurs/ liberal professions and the like</i> Employed: <i>workers in agriculture, forestry, hunting and fisheries/ managerial, technical, scientific, art.workers and the like/ other workers employed in commerce and services/ labourers</i> Other active persons Non-active persons	Distribution keys use these groups. TIAH results supplied for agric. and non-agric. households only
United Kingdom	Self-employed: <i>agriculture and horticulture/ forestry/ fishing/ manufacturing/ construction/ transport/ wholesale distribution/ garages/ hotels and catering/ services/ professions/ finance/ property/ other/ all trades except agriculture and horticulture/ all trades</i> Employed Pension(ers) Other All cases	Breakdown applied in the Survey of Personal Incomes (tax data). See TIAH 1992 Report for description of the problems with this source

Chosen Minimum and Expanded lists of socio-professional groups

3.3.11 Following discussion by the Working Party and consultation with parts of Eurostat responsible for Family Budget Surveys and National Accounts, it was agreed in June 1993 that the TIAH project should adopt a list of socio-professional groups for the purpose of disaggregating the household sector and the drawing of comparisons between agricultural households and other socio-professional groups. This list is expressed in two levels, a "minimum" list (shown in **bold** in Figure 3.1) and an indication where the first level of expansion should take place (shown in normal print). Member States that wished to use a more detailed breakdown could do so.

Figure 3.1 "Minimum" list of socio-professional groups, and first level of expansion

- (a) Employers and own-account workers (main income of reference person from independent activity)**
 - (i) Farmers**
 - (ii) Others**
 - (x) retail and wholesale distribution; accommodation and catering
 - (y) services (including professions operating as own-account workers)
 - (z) others (including manufacturing industry)
 - (iii) All self-employed [(a)(i)+(a)(ii)]**
- (b) Employees (main income of reference person from dependent activity):**
 - (i) Manual workers in agriculture, industry and services
 - (ii) Non-manual workers
 - (iii) All employees ((b)(i) + (b)(ii))
- (c) Others**
 - (i) Recipients of property income
 - (ii) Recipients of pensions
 - (iii) Recipients of other current transfers
 - (iv) All others
- (d) All households except farmers ((e) minus (a)(i))**
- (e) All households ((a) + (b) + (c))**

In line with the existing TIAH Manual, where possible, the group of agricultural (farmer) households should not include forestry or fishery households. Where Member States already breakdown households in the self-employed group into smaller sub-groups (especially Germany, France, Netherlands), this should continue.

3.3.12 By the agreement in the Working Party this "minimum" list has become part of the target methodology of the TIAH project that Member States will endeavour to apply. It will be incorporated into a future revised edition of the TIAH Manual of Methodology.

3.4 The provision for the use of a "broad" definition of an agricultural household within the TIAH methodology

Background

3.4.1 The definition of an agricultural household used in the TIAH project (where farming is the main source of income of a reference person, with permitted alternatives) is compatible with the general disaggregation of the household sector account (within the context of national accounts) into socio-professional groups and with the objectives set for this project. Though the main focus of attention of the TIAH project remains this "narrow" approach to what constitutes an agricultural household, during the period since the project was established the desirability of also making income estimates using a "broad" approach has risen. For some policy purposes it may be desirable to treat all households with which a holding is associated as "agricultural"; at present perhaps half of these are excluded by the "narrow" definition (see later in this chapter). It is accepted that this could never be the basis for a complete disaggregation of all households into socio-professional groups. But in the opinion of the Commission's Directorate-General for Agriculture (DG VI), a major potential user of the results and whose representatives are members of the Working Party responsible for developing the TIAH project methodology, information gathered in this way might be useful. By subtraction it should also be possible to throw light on the income situation of those households with agricultural holdings that are not primarily dependent on farming for their livelihood (those households that fall outside the "narrow" but inside the "broad" approaches). It should be noted that the possibility of using a "broad" approach has been an issue from the outset of the TIAH project

and is specifically mentioned in the detailed TIAH methodology set out in the 1990 *Manual on the Total Income of Agricultural Households* (para. 2.9) although priority has always been given to the development of income indicators corresponding to the "narrow" approach.

3.4.2 In discussions between Eurostat and DG VI it has become clear that results using this "broad" approach are seen as a valuable extension of and not a substitute for those generated using the existing "narrow" definition. Both form general background information against which the problems and policies of agriculture in the European Union can be discussed and monitored; it should be noted that TIAH information is not seen as suitable for the management of individual policy instruments. As other policies develop that have agricultural connotations (for example, rural development, social and environmental policies) the breadth of interest in the TIAH results is likely to increase, and for some of these there may be interest in both the "broad" and "narrow" approaches.

3.4.3 Despite the request for this information from DG VI, there are differences of opinion on the usefulness of applying a "broad" definition. Within the Working Party, representatives of some countries (Greece, for example) have questioned the usefulness of results; they point out that where holdings are predominantly small, are operated on a part-time basis and are associated with large families whose members are predominantly engaged in urban jobs, the total income figures are of very limited value for casting light onto the income situation of the agricultural community. Some minimum threshold of holding size might be imposed on the "broad" approach, but this runs the danger of excluding families who produce little but who nevertheless are mainly dependent on farming for their livelihood.⁹ Given enough basic data, it might be possible to estimate disposable incomes for agricultural households defined in many alternative ways, but this is often not feasible, given the resource constraints experienced by Member States. Other countries (notably France) do not favour the use of the "broad" approach since they feel it undermines the fundamental principle of being able to compare income of socio-professional groups in a systematic manner.

Alternative "broad" definitions of an agricultural household

3.4.4 Preliminary discussion of the "broad" definition used rather vague terminology, such as the coverage of all households that *operate an agricultural holding* or with which a holding is *associated*. Development of a harmonised methodology requires more precision. In principle, alternative criteria exist for defining a "broad" agricultural household, and these criteria can be applied at level of the entire household, the farmer and spouse or an individual (reference person). The main criteria¹⁰ are:

- (a) occupancy of an agricultural holding;
- (b) receipt of income from independent agricultural activity;
- (c) labour input to independent agricultural activity.

These three are likely to overlap greatly. The households covered by them can be termed the *occupancy population*, the *income population*, and the *labour input population*. However, the groups are not identical. For example, there will be some occupiers who receive no cash income from farming (either because the farm is primarily residential or where farming is not profitable). Conversely, some households may receive entrepreneurial income without being the officially-registered occupier (such as households of sons of farmers in partnership with their fathers). Occupancy and receipt of income need not necessarily imply labour input to agriculture (as on farms where the legal owner of the business is absent and employs a

⁹ Also, some large farms will be included where the occupiers are mainly dependent on even larger earnings from other businesses; these may be significant agricultural producers and thus of importance to policies directed at influencing the level of production, but they will be outside the boundary of policies aimed at families which are mainly dependent on farming.

¹⁰ The use of residence on an agricultural holding, used for many years in the USA, is not appropriate in the European context.

manager and hired labour), and cases could be found where there is labour input to farming but no positive income.

3.4.5 Minimum thresholds could be applied to either criterion. For **occupancy** of an agricultural holding, this could be the minimum area that is covered in the national agricultural census, or the minimum required to qualify for inclusion in the European Union's Farm Structure Survey, or the minimum economic size for inclusion in the EU Farm Accountancy Data Network (that attempts to distinguish between "commercial" and other forms of farming). All three differ between Member States, reflecting different farm size structures. For **income**, the application of thresholds may depend critically on whether income covers *income in kind* (principally the imputed rental value of the farm house) or whether only *cash income* is covered. Households who occupy farms solely for domestic purposes would be excluded if only cash income were considered.¹¹ For **labour input** some minimum might be applied (labour days or Annual Work Units) that would draw an arbitrary line at the bottom of what might be regarded as commercial activity (such as the 0.75 AWU used in some analyses of the European Union's Farm Structure Survey).

3.4.6 The current target "narrow" definition of the TIAH project uses a reference person system, mainly for practical reasons. It is accepted that classifying households on the basis of the main income of the reference person can result in some households being classed as agricultural where the main income of the household comes from non-farming sources. Situations may arise in the application of the "broad" definition where, with the **occupancy** criterion, the occupier is not the reference person or, with the **income** criterion, the income from independent agricultural activity is received by members of the household other than the reference person, or where the reference person puts no **labour input** into farming but other members of the household do so. The widest coverage of households will obviously result from applying either of these criteria to the whole household.

Existing empirical evidence using the "broad" definition

3.4.7 Results already incorporated (in part) into the *TIAH 1992 Report* illustrate the implication of using the "broad" definition. The relationship between the numbers of agricultural households that satisfy the TIAH "narrow" definition in 1987 and the number of holdings shown in the Farm Structure Survey varied widely between Member States and depended on a variety of factors (see Table 3.2). In some the ratio was about 7/10 (Belgium, Denmark, France, Luxembourg, Netherlands), but in others fewer than half the holdings appeared to be operated by households that are classed as agricultural (Germany, Greece, Spain, Ireland, Italy, Portugal). The UK's situation is exceptional; despite what is regarded as an under-estimation of the number of agricultural households because of the nature of the data source (that does not capture households whose farm businesses are arranged as companies), the existence of large farms with more than one entrepreneurial household appears to be sufficient to raise the total number of agricultural households above that of agricultural holdings for the year under consideration.

3.4.8 Because there is not a direct correspondence between agricultural holdings and households deriving some income from farming, numbers of holdings are not necessarily a satisfactory indicator of the numbers of households that satisfy the "broad" definition. A more direct method of assessment is required. Chapters 4 and 5 in this report describe the outcome of special analyses commissioned by Eurostat in the Netherlands and Germany respectively on the use of alternative definitions of an agricultural household, and in particular the implications for using the "broad" approach. However, some information is already to hand that must be reviewed here. Care should be taken not to extrapolate the results from single countries to the EU as a whole, since there is some inconsistency in the results, particularly in terms of the changes in the levels of income per household resulting from switching from a "narrow" to a "broad" view of an agricultural household. Additional information from the USA, where this definitional problem and its consequences has also recently attracted attention, is given in an Appendix to this report.

¹¹ A variant of this threshold is seen operating in the USA where a farm is defined as an establishment from which \$1,000 of agricultural products could be expected to be sold in a year.

Table 3.2 Comparison of numbers of agricultural holdings in the European Union Farm Structure Survey with numbers of agricultural households (TIAH project)

Member State	No. agric. holdings *1000 (1987) (i)	No. agric. households *1000 (1987) (ii)	No. agric. households as percentage of holdings
Belgium	93	66	71
Denmark	87	69 (1988)	71
Germany	705	342 (1988)	49
Greece	953	405	42
Spain	1792	641	36
France	983	660	67
Ireland	217	85	39
Italy	2784	736	26
Luxembourg	3.8 (1989)	2.7 (1989)	71
Netherlands	132	96 (CBS 1985)	73
Portugal	636	219 (1980)	34
United Kingdom	260	261 (1987/8)	100
Sum of the above	8646	3583	41

Source:

(i) Eurostat (1991) *Farm Structure 1987 survey: main results*. Theme 5 Series C.

(ii) Hill, B (1992) *Total Income of Agricultural Holdings 1992 Report*. Eurostat: Theme 5 Series C and updates.

Note: the definitions of an agricultural household vary between Member States; see the TIAH 1992 Report.

3.4.9 In *Ireland* the results shown in Table 3.3 were obtained from data taken from the 1987 Family Budget Survey, the National Farm Survey and the Farm Structure Survey. Light is thrown onto both the implications of adopting a "broad" definition of an agricultural household in contrast to a "narrow" one and onto the alternatives approaches to each. The number of households found to have *some* independent agricultural income was 2.9 times the number where farming was the *main* income source of the entire household and 2.4 times the number where farming was the main income of the head of household (the target "narrow" definition). However, the number of households with some independent agricultural income (that is, the size of the "broad" income population) was smaller than the number of holdings or of holders who were "natural persons" (and presumably the numbers of households in which they were to be found). Applying minimum size thresholds substantially reduced the numbers of holders.

3.4.10 By definition, using the "broad" approach to what constitutes an agricultural household covers many for which farming is only a minor income source or not the main occupation of the head of household. By subtraction, it is possible to establish the income composition of these marginal households; that is, households brought in by applying the "broad" approach but which would not be included by using the "narrow" definition. This could be done for each of the three variants on the "narrow" approach, but here attention is focused on the variant using the income criterion of a reference person.

3.4.11 Households in which there was some farming income but where it did *not* constitute the main income of the head are numerically important in Ireland; they formed more than half the total in the "broad" group in 1987 (122,000 out of 207,000). Farming only constituted some 14 per cent of their total incomes; the main source was wages (51 per cent), and the second most important source was social benefits (26 per cent). Overall the impact of these marginal households was to reduce the proportion of income coming from independent agricultural activity for the entire "broad" group to 39 per cent (compared with 67 per cent for the "narrow" definition), with wages and salaries accounting for almost as much (35 per cent). Social benefits were pushed into third place.

Table 3.3 Ireland: Numbers of households resulting from alternative definitions of an agricultural household, 1987

Criterion of agricultural household	Number of households 1987
"Broad" definitions of agricultural households	
Number of holdings in the Farm Structure Survey	217,000
Number of holders who were "natural persons"	215,600
All households with some independent agricultural income	206,700
Holders recording 1 AWU or more in the Farm Structure Survey	91,800
"Full-time" farms (labour requirement measurement) in the National Farm Survey	68,600
"Narrow" definitions of agricultural households:	
Households in which independent agricultural activity was:	
the main occupation of the head of household	140,500
the main income of the head of household	84,500
the main income of the entire household	72,400

3.4.12 Adopting the "broad" approach found that the average disposable income of all households with some farming income was below that of the "narrow" approach. This situation is explained by examination of the income levels of households that fell outside the "narrow" definition but which still had some income from farming. In Table 3.4 these marginal households had an average income below that of households which satisfied the "narrow" definition; their relative income position was below the national average, whereas the "narrow" definition agricultural households were substantially above the national average. Thus the effect of including these marginal households was to bring the average of the "broad" definition nearer to the all-household average, but still above it.

Table 3.4 Ireland: Numbers of households and average disposable income per unit for "narrow" and "broad" definitions of an agricultural household, 1987

Classification criterion	Households (000)	Income per household £IRL	Per household member £IRL	Per consumer unit £IRL
"Narrow" definition (reference person: income criterion):	84.5	12867	3266	4529
"Broad" definition (some household farming income)	206.7	10600	2837	3910
Marginal households (Broad minus narrow)	122.2	9032	2512	3447
All households in Ireland		10101	2882	3854

Source: adapted from Table IRL1 of the *TIAH 1992 Report*

3.4.13 Results for *Denmark* in 1988 are shown in Table 3.5. The number of households with an agricultural holding that qualified for inclusion in the Farm Structure Survey was much greater than that found when using the "narrow" definition based on a reference person. It should be noted that here the definition of "household" was narrower than the TIAH target, consisting only of the couple and dependent children; however, this discrepancy was not felt to be of great importance. The number of households where farming was the main income source of the household as a whole was substantially smaller than that found using the reference person system.

3.4.14 In terms of Net Disposable Income per household, the average income of all households with a holding (KR 123,000) was very similar to that for agricultural households narrowly defined using a reference person system (KR 124,000). The additional households brought in by using the "broad" approach had incomes per household which were only a little lower than those that qualified as agricultural households (KR 120,000) narrowly defined. All groups had income levels that were substantially above the national average for all households (KR 108,000). In interpreting these figures it should be recalled that 1988 was a year in which the income from Danish farming was particularly low, and this may have had an effect on the income levels produced by the alternative classification systems. In 1993 Eurostat entered into a study contract with Denmark with the aim, *inter alia*, of obtaining results for later years.

Table 3.5 Denmark: Numbers of agricultural households and average disposable income for "narrow" and "broad" definitions of an agricultural household, 1988

Criterion	No. households	Average household disposable income (1000KR)
All households with holding in the Farm Structure Survey (a)	83,467	123
Agriculture was main household income	36,067	143
Household with reference person a farmer - TIAH "narrow" definition (b)	68,894	124
Marginal households ((a) - (b))	14,573	120

Notes:

- (a) The number of households with a holding is similar to figures from the 1987 Farm Structure Survey (86,900) and the number of holders who were "natural persons" (87,700).
- (b) The "narrow" definition is taken as households where the person with the highest gross income has agriculture as his or her industry and employment status as self-employed (independent).

3.4.15 Table 3.6 shows the composition of the resources flowing to households with an agricultural holding, sub-divided into those that satisfied the "narrow" definition of an agricultural household and those that did not. The reward from independent activity is Operating Surplus minus rent, rather than income (that is, Net Value Added after the deduction of the costs of hired labour and rent but before the removal of interest charges). Alternatively, Operating Surplus minus rent can be interpreted as income before the deduction of interest payments. Using this concept, it appeared that agricultural activity was the origin of only a very small proportion of the total resources of "non-agricultural" farming households, the main source being wages; income (pre-interest payments) from independent activities outside agriculture was more important than that from farming.

3.5 Progress towards estimating results using the "broad" definition

3.5.1 At the meeting of the Working Party in December 1992 several Member States had reported that the use of some "broad" definition was already possible, at least in theory, though the precise nature of these definitions varied. As reported above, Ireland had already supplied results on this basis (and on several "narrow" definitions). In Denmark the "broad" definition was already in use as part of the calculation process. In Greece the use of a "broad" definition was thought to be feasible, given the involvement of the Family Budget Survey (FBS) as a distribution key (this may also apply to countries using similar methodologies). In Portugal alternative ways of defining the agricultural household were being reviewed. In the United Kingdom the basic data (from tax records) were nearer the "broad" than the "narrow" definition.

3.5.2 As an exercise to further explore the practical problems and implications to the results of using a "broad" definition as a supplement to the "narrow" approach of the TIAH target methodology, Eurostat commissioned two studies in this area (from the Netherlands and Germany). These involved the use of alternative ways of defining both approaches, in a manner similar to that given above for Ireland. Results

from this work are reported in detail in the following two chapters. First results have already been seen by the Working Party at its Meetings of July and December 1993.

Table 3.6 Denmark: Composition of the aggregate income of households corresponding to the "narrow" and "broad" definitions of an agricultural household. 1988

Form of receipt	All households with holdings in the Farm Structure Survey ("broad")		Reference person criterion ("narrow")				
	KRm. (a)	%	Agricultural households		Non-agricultural households		(b) as % of (a)
	KRm. (a)	%	KRm. (b)	%	KRm.	%	%
Operating surplus minus rent*: agriculture	10415	39	10194	52	221	3	98
Operating surplus minus rent*: non-agriculture	1447	5	44	0	1403	20	3
Dwellings	539	2	387	2	152	2	72
Wages	9447	36	5308	27	4139	59	56
Property	2433	9	1635	8	798	11	67
Social	1944	7	1758	9	187	3	90
Other	202	1	96	0	106	2	48
Total resources	26428	100	19423	100	7004	100	73
Distributed property income (interest)**	11200	42	7726	40	3474	50	69
Taxes	4310	16	2897	15	1413	20	67
Social payments	649	2	275	1	374	5	42
Net Disposable Income	10267	39	8524	44	1743	26	83
Households (number)	83467		68894		14573		83
NDI/household (1000 KR)	123		124		120		

* Can also be interpreted as income before the deduction of interest payments.

** No separation is made between interest on loans for farming purposes (including land purchase) and other loans.

3.5.3 Discussion in 1993 on how to make practical progress in applying a "broad" definition concentrated on three main options for the coverage of households at which this approach should aim, as mentioned in 3.4.3 above:

- A: Coverage of all households that operate agricultural holdings that qualify for inclusion in the European Union's Farm Structure Survey
- B: Coverage of all households that derive an income from independent agricultural activity (other than income solely in kind)
- C: Coverage of all households that contribute some independent labour input into agricultural activity with the intention of deriving a cash income.

3.5.4 In December 1993, after consideration of the possible alternative approaches, the existing evidence on the implications of using the alternatives including the preliminary results from the special studies in the Netherlands and Germany, the views of the Commission's Directorate-General for Agriculture, the Working Party reached agreement that option B should be adopted within the harmonised methodology of the TIAH project. This implies that, under the "broad" definition, an agricultural household is one *which derives an income from independent agricultural activity*. Because of the way in which the household is defined in the

TIAH methodology, this means that a household is included if any member of the household has income in this form. The TIAH Manual allows a degree of flexibility in the precise ways in which the terms "household" and "income" are interpreted, to reflect national data sources and customs. In the absence of internationally applied definitions of these terms, the TIAH Manual states that they be defined as in national household (family) budget surveys. The agreement within the Working Party on option B constitutes an extension to the target methodology that Member States endeavour to apply and which will in time be incorporated in a revised TIAH Manual.

3.5.5 The results reported above for Ireland and Denmark, combined with an anticipation of some of the analysis presented in chapters four and five for the Netherlands and Germany, point to some implications of using the new target "broad" definition (Option B above). Caution has to be exercised because, at present, the results relate only to single years and, in the case of Denmark, there are some methodological disparities. While in each country the use of the "broad" definition expanded the number of agricultural households compared with the numbers that qualified under the revised target "narrow" definition, the extent varied substantially; the number of "broad" agricultural households as a percentage of the number of "narrow" ones was 245% in Ireland (1987), 121% in Denmark (1988), 156% in the Netherlands (1988) and 172% in Germany (1983). Perhaps of even greater significance is the different impacts these marginal households (which derive some income from farming but where farming is not the main source of income of the reference person) had on average income levels. In Ireland and the Netherlands they lowered the average household net disposable income (by 18% and 21% respectively), implying that the marginal households had lower average incomes than agricultural households narrowly defined (though in the Netherlands they were still above the national all-households average). In Denmark the income level was almost unchanged. However, in Germany they raised the average income of agricultural households by 5%, implying that the marginal households had incomes that were on average higher than households which satisfied the "narrow" definition. Such diversity should prevent the drawing of any quick assumptions about the relative results from using the alternative approaches and points to the need for results to be available from each Member State. The differing social, economic and agricultural structures seem likely to require each country to be considered individually, at least until more comprehensive information is available.

CHAPTER FOUR: AGRICULTURAL HOUSEHOLDS AND THEIR INCOMES IN THE NETHERLANDS

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4.1 Introduction

4.1.1 As has been explained in preceding chapters of this publication, in developing the methodology of the TIAH project, a target definition of an agricultural household was adopted based on the main source of income of a reference person. During discussions between Eurostat and the Member States it was pointed out several times that some countries had large numbers of households receiving income from self-employment in agriculture in addition to their main source of income - in other words, agriculture was a sideline. If, for whatever reason, the socio-economic situation of these households needs to be quantified, a "broad" definition of an agricultural household is needed in addition to the "narrow" one. Added to this is the fact that, if one counts only those households whose main source of income is self-employment in agriculture and classification is carried out separately for each year, there are by definition fewer agricultural households in less productive farming years, since some formerly agricultural households are excluded from the population. This is undesirable for a number of reasons. For instance, it is theoretically possible for the average income of agricultural households to *rise* with a drop in farm profits if the households left in the agricultural group are comprised disproportionately of large farms. This phenomenon of fluctuating income and hence a fluctuating number of households is probably more serious in agriculture than in other types of activity and household.¹²

4.1.2 The Netherlands, and the Centraal Bureau voor de Statistiek (CBS) in particular, have relatively good statistics on the income of (agricultural) households and well-trying methods and techniques by which to study the consequences of using contrasting approaches to defining agricultural households and measuring their income. The Socio-Economic Accounts (SER), as compiled a few years ago by the CBS, were particularly in tune with Eurostat's intentions. Eurostat asked the CBS to apply a number of different criteria when classifying (farm) households and make the appropriate calculations. The new angles this produced made it possible to quantify discrepancies arising from differences in the definitions used. Such analyses pave the way for further harmonisation of the methods and techniques to be applied and assist in focusing the aims and priorities of the TIAH project.

4.1.3 This article presents some of these analyses and, in a very concise form, the regular statistics on the income of (agricultural) households as published in the Socio-Economic Accounts of the Netherlands, with the emphasis placed on farm households and their income.

4.2 The Socio-Economic Accounts (SER)

4.2.1 Before turning to the results of the SER and the complementary analyses, their nature must be briefly explained. To cater for the growing interest in statistics on the socio-economic situation of population groups within Netherlands society, the CBS began to compile Socio-Economic Accounts, the aim being to describe, systematically and as fully as possible, the socio-economic situations of population categories and their trends over time. Income received and the (re)distribution and disposal of income are the key factors.

4.2.2 The SER are compiled by integrating data from existing sources in the CBS, the most important being income statistics, the household budget survey and the National Accounts (NR). The relationship between the NR and the SER is twofold. First, the household sector in the NR covers the population resident in the Netherlands and hence the population categories (household types) classified in the SER. Secondly, the transaction definitions used in the SER are basically the same as those in the NR. There are some differences

¹² Though this is theoretically possible, in practice most Member States use classification systems which provide a degree of stability in the numbers of agricultural households. This point is discussed in greater detail in *Total Income of Agricultural Households: 1992 Report*.

between the NR and the SER, but these are quantified to provide a complete link with the NR. The SER can thus be seen as a breakdown of the household sector accounts as compiled for the NR. They were first compiled in 1981 (CBS, 1988; this publication gives a detailed description of the method and its first application). Socio-Economic Accounts were next compiled and published for 1983 and 1985 (CBS, 1990), 1987 (CBS, 1992) and 1988 (van der Laan, 1992).

4.2.3 The 1988 SER are shortly to appear in a revised form, having been overhauled following the revision of the 1988 National Accounts. The results and analyses presented here refer solely to the revised 1988 SER.

4.3 Additional analyses

4.3.1 In the SER, households are classified, *inter alia*, by the main source of income of the entire household. Initially, eight sources are distinguished:

- income from employment¹³;
- income from self-employment¹⁴, broken down into:
 - income from self-employment in agriculture;
 - income from self-employment in trade and repairs;
 - income from self-employment in services;
 - income from self-employment in other activities;
- property income;
- transfer income, broken down into:
 - transfers in connection with old age;
 - other transfers.

4.3.2 The term 'main source of income' does not necessarily mean that this source provides more than half of the household's (total) income. No special provision is made if income from self-employment is negative. Households whose main source of income is self-employment are subdivided into four groups based on the economic activities accounting for the income. The activities classification is that of Eurostat's NACE Rev.1.

4.3.3 Households are broken down, *inter alia*, by data such as those used in income statistics, income from self-employment in agriculture being one of the characteristics. The various definitions of (agricultural) households were able to be applied on this basis. The classification of agricultural households is based on income from self-employment in agriculture including agricultural services, horticulture and hunting, but excluding forestry and fisheries. The eight types of household shown in para. 4.3.1 are then further broken down by income level and composition, which produces 98 different type/income combinations. Seven are sufficient for the purposes of this article; from the above list, households whose main income is 'income from self-employment in other activities' or 'property income' are grouped together.

4.3.4 For the purposes of the additional analyses based on the SER, households were classified by the main source of income of:

- (1) the whole household;

¹³ Referred to in Tables 1 and 3 as 'wages' and in Tables 2A to 2D as 'dependent activity'.

¹⁴ Referred to in Tables 1 and 3 as 'entrepreneurial income' and in Tables 2A to 2D as 'income from independent activity'. In Tables 2A to 2D (as in Eurostat's data transmission table for the total income of agricultural households), the term 'entrepreneurial income' is used to mean dividends and other income distributed by corporate enterprises, withdrawals from the entrepreneurial income of quasi-corporate enterprises, profits assigned to employees, etc.

- (2) the nucleus of the household: the main breadwinner and spouse, if any;
- (3) the main breadwinner.

The main source of income was determined using:

- (a) the existing derivation system of the SER (i.e. a median classification);
- (b) a variant in which any income from self-employment in agriculture immediately classes the household as agricultural.

A combination of these approaches gives six variants (1a to 3b), where 1a is that used in the regular SER. Classification according to variants 1b, 2b and 3b is simply derived from variants 1a, 2a and 3a, as follows: if the income unit concerned has *any* income from self-employment in agriculture, it is automatically classed as an agricultural household. Variant 3a corresponds to the target "narrow" definition within the TIAH project and 1b to the newly-agreed "broad" TIAH definition.

4.3.5 In the tables that follow, the six variants are shown as:

- concept 1a (whole households, main income from agriculture);
- concept 1b (whole households, some income from agriculture)(TIAH "broad" definition);
- concept 2a (nucleus of household, main income from agriculture);
- concept 2b (nucleus of household, some income from agriculture);
- concept 3a (main breadwinner, main income from agriculture)(TIAH "narrow" definition);
- concept 3b (main breadwinner, some income from agriculture).

4.4 Some results

Number of households

4.4.1. Table 4.1 shows that, if the other members of the household (i.e. those not forming the nucleus) and the main breadwinner's spouse were successively eliminated when determining the main source of income (that is, when moving from concept 1a through 2a to 3a), the number of households with income from self-employment and, even more so, transfers as the main source of income increased overall. On balance, this shift took place entirely at the expense of the number of households with employment (that is dependent activity) as their main source of income (wages and salaries). It can therefore be concluded that, overall, the income of a spouse or another member of a household usually came from employment. Closer examination of the figures revealed that this applied more specifically to other members of the household; in a significant number of cases the main income of the breadwinner's spouse, if any, consisted of transfers.

4.4.2. There were 82,000 households whose main combined income (concept 1a) was income from self-employment in agriculture, and 85,000 in which this was the main income of the nucleus (concept 2a). Lastly, there were 87,000 in which the main breadwinner's main income (concept 3a) came from self-employment in agriculture. In other words, the more spouses and other members of the household are taken into account, the fewer agricultural households were left.

Table 4.1 Netherlands: Numbers of households (1,000s) by socio-professional group according to different method of classification, 1988

	Households with as main source of income							All private households
	Wages	Entrepreneurial income from				Transfers with respect to old age	Other transfers	
		agriculture	trade and repair of consumer goods	business and personal services	other economic activities and property income			
concept 1a	3280	82	72	97	99	1302	860	5792
concept 2a	3224	85	73	98	106	1333	873	5792
concept 3a	3219	87	74	99	112	1330	872	5792
concept 1b	3246	136	72	96	98	1290	854	5792
concept 2b	3207	120	73	98	105	1322	867	5792
concept 3b	3205	112	74	99	112	1323	866	5792
Changes in numbers of households compared to concept 1a								
concept 1a - 1a	0	0	0	0	0	0	0	0
concept 2a - 1a	-56	3	1	1	7	31	13	0
concept 3a - 1a	-61	5	2	2	13	28	12	0
Changes in numbers of households compared to the 'b-concepts'								
concept 1b - 1a	-34	54	0	-1	-1	-12	-6	0
concept 2b - 2a	-17	35	0	0	-1	-11	-6	0
concept 3b - 3a	-14	25	0	0	0	-7	-6	0

Source: CBS, Socio-Economic Accounts 1988

4.4.3 There were 5,000 more agricultural households in TIAH target narrow classification (reference person, main income) than in the SER classification (household, main income).

4.4.4 The use of a broad definition of an agricultural household greatly increased the number of such households. Concept 1b (the TIAH "broad" definition) obviously yielded the largest number of agricultural households (136,000). There were thus 54,000 households in which at least one member had some income from self-employment in agriculture without this being the main source of income of the household. Of these 54,000 'extra' agricultural households, 34,000 had employment as their main source of income, roughly 12,000 transfers in connection with old age, and 6,000 other transfers.

4.4.5 If only any income from self-employment in agriculture of the nucleus of the household was counted (concept 2b), there were 120,000 agricultural households. If this was applied to the breadwinner alone (concept 3b), there were 112,000. The 'extra' agricultural households over and above the narrow definition consisted more or less equally of those with employment and transfers as their main source of income. Comparing the numbers of households resulting from using concept 1b (the TIAH "broad" definition) with that from using concept 3a (the TIAH "narrow" definition) showed that the latter covered almost two thirds (64%) of the former. Another way of expressing this is that, in the Netherlands in the year in question, switching from the "narrow" to the "broad" approach increased the number of households by more than half (56%).

Income

4.4.6 Before comments are offered on these results, certain transaction categories in Tables 4.2A to 4.2D require definition.

Receipts from independent activity means the profits earned by self-employed persons and consists of turnover (output) less costs (intermediate consumption, labour costs and consumption of fixed capital), less indirect taxes paid and levies on prices, plus subsidies received on cost prices. Net income from imputed rent of owner dwellings is also counted as income from independent activity. Interest and rents etc. paid by self-employed persons in connection with their own business are not (yet) deducted from this income.

Property and entrepreneurial income covers both interest and rents etc. received by self-employed persons in connection with their own business and other interest received, plus other property and entrepreneurial income received by households.

Paid interest and paid rents etc. primarily mean interest and rents etc. paid by self-employed persons in connection with their own business. Mortgage interest paid on own dwellings also belongs under this heading, as does interest paid by households on personal loans and other forms of consumer credit.

To facilitate comparison of the disposable incomes of different types of household, the heading *Social contributions* covers premiums paid by households for private health insurance as well as (collective) social insurance premiums in connection with medical expenses.

4.4.7 In Tables 4.2A and 4.2B receipts, related expenditure and the resulting disposable income are shown for the various definitions of an agricultural household, as group totals and household averages. Table 4.2C shows the composition of receipts and expenditure. Table 4.2D shows the percentage changes in average receipts and expenditure for the various definitions of agricultural households compared to concept 1a (where income from independent agricultural activity is the main source of the entire household, which is the definition adopted within the Socio-Economic Accounts of the Netherlands).

4.4.8 The following conclusions can be drawn from this analysis:

- (i) The difference in levels of receipts and expenditure between the three narrow definitions of an agricultural household (where independent activity in agriculture was the main income source of the

whole household, the nucleus of the household, or the main breadwinner) was moderate. Disposable income per household in these three groups was very similar. The average income from self-employment in concepts 2a and 3a was slightly less than in concept 1a, but this was almost entirely offset by higher income from employment.

- (ii) As pointed out above, a broad definition of an agricultural household has a far greater effect on the number of such households than does a narrow definition. This also applies to the level and structure of receipts and expenditure and to the net disposable income of the groups formed under the three broad definitions. As with the number of agricultural households, the biggest difference is between concept 1a and concept 1b (respectively where independent agricultural activity was the main income source of the whole household, or where the household had some such income). Table 4.2A shows that the 54,000 'extra' agricultural households in concept 1b earned some F1 0.5 billion as receipts from self-employment in agriculture - an increase of 5% over the equivalent earned by the households defined under 1a. This difference is modest. It can thus be concluded that the receipts from self-employment in agriculture earned by households whose main source of income lies elsewhere is insignificant compared with that of households that do have this activity as their main source of income.
- (iii) The average level of receipts from self-employment in agriculture was considerably lower if the broadest definition of an agricultural household was applied (concept 1b relative to concept 1a). The income coming from dependent activity (employment) of these 136,000 agricultural households was three times as much as for the group defined under concept 1a; their social benefits amounted to two-and-a-half times as much. When expressed as averages per household (Table 4.2B), income from dependent activity and social benefits rose sharply, but not enough to offset the average drop in receipts from self-employment. Changes in expenditure were somewhat less extreme. Interest and rents etc. and direct taxes paid were slightly higher for the 1b group as a whole as compared to the 1a group, but lower when expressed as averages per household. Social contributions paid increased somewhat more in total, but remained more or less the same as household averages. Although the level of expenditure in concept 1b was somewhat below that in concept 1a, the per household average disposable income of agricultural households defined under concept 1b was roughly F1 23,000 (or 22%) below that of households defined under 1a.
- (iv) The level of income of households classed as agricultural under the broadest definition (1b) was considerable. Compared with other groups of households, the disposable income of the 54,000 'extra' agricultural households was, in fact, relatively high. Households with some income from self-employment in agriculture but not as their main source of income are therefore not necessarily low-income households.
- (v) The differences between the other two broad definitions of agricultural households (2b and 3b) and concept 1a were smaller in quantitative terms but qualitatively insignificant, as with concept 1b - in other words, the differences compared with 1a were similar for each of the three broad definitions, but occurred to different extents. The mutual differences between the three broad definitions were considerable, unlike those between the three narrow definitions. The net disposable income per household ranged from some F1 82,000 to F1 91,000.
- (vi) Taking an overall view of all six definitions of an agricultural household, the average disposable income of agricultural households ranged from F1 105,000 for the narrowest definitions (concept 1a and 2a) to F1 82 000 for the broadest (concept 1b). The share of receipts from self-employment in agriculture in the total income of agricultural households ranged from 77% for the narrowest definitions (concept 1a and 2a) to 60% for the broadest (1b).
- (vii) Comparing the two definitions that feature explicitly in the TIAH project methodology (the "narrow" TIAH definition corresponding to concept 3a and the "broad" TIAH definition to concept 1b) found that the "broad" version had a much lower level of disposable income per household (F1 82,000 in contrast

with Fl 104,000). This relationship of 79% of the income level was also found when disposable income was expressed per household member and per consumer unit¹⁵.

4.4.9 There is one last comment to be made on the disposable income of agricultural households compared with other groups of households. Table 4.3 shows the disposable income of seven groups of households and all private households. It appears in general that the disposable income of households whose main source of income is self-employment was relatively high. The relationships between private households and businesses are such that these households are, in fact, deemed to be financing their (expansion) investments in their own businesses from this disposable income. To facilitate comparison, disposable income is also calculated per person and per consumption unit, which has a levelling effect.

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¹⁵ A consumer unit is used as the yardstick for the income required by a household in order to achieve a certain living standard compared with a standard household (Schiepers, 1988). This corrects differences in the composition of households.

Table 4.2A Netherlands: Total income of agricultural households, 1988 (totals)

	concept 1a	concept 1b	concept 2a	concept 2b	concept 3a	concept 3b
Numbers of units x 1 000						
Number of households	82	136	85	120	87	112
Number of persons	306	501	323	438	327	415
Number of consumer units	149	250	157	217	160	205
(mio. HFL)						
RECEIPTS						
1 From independent activity	10782	11588	10953	11372	11013	11287
1a net operating surplus from agricultural activity	10259	10778	10412	10675	10467	10672
1b net operating surplus from non- agricultural activity	81	239	94	158	94	101
1c imputed rent of owner dwellings	442	571	447	539	452	514
2 From dependent activity (agric. and non- agric.)	974	3095	1256	2370	1273	2150
2a gross wages and salaries	768	2407	986	1850	1000	1677
2b employers' actual social contributions	206	688	270	520	273	473
3 Property and entrepreneurial income received	880	1424	908	1265	1025	1230
3a actual interest	764	1175	786	1035	830	1002
3c income from land and intangible assets	116	249	122	230	195	228
5 Social benefits	745	1890	802	1514	839	1409
6 Other current transfers	29	59	32	49	32	45
7 TOTAL (1+2+3+5+6)	13410	18056	13951	16570	14182	16121
EXPENDITURE						
8 Distributed property and entrepreneurial income	1462	1664	1490	1606	1495	1573
8a paid interest	1338	1519	1363	1467	1368	1435
8b paid rents	124	145	127	139	127	138
10 Current taxes on income and wealth	1266	1672	1275	1513	1341	1484
10a current taxes on income	1182	1549	1190	1402	1248	1377
10b current taxes on wealth	84	123	85	111	93	107
11 Social contributions	2088	3535	2242	2996	2252	2848
12 Other outgoing current transfers	21	36	22	32	23	30
12b private international transfers	20	34	21	30	22	29
12c miscellaneous current transfers	1	2	1	2	1	1
TOTAL (8+10+11+12)	4837	6907	5029	6147	5111	5935
DISPOSABLE INCOME						
13a net disposable income (7-8-10-11-12)	8573	11149	8922	10423	9071	10186

Source: CBS, Socio-Economic Accounts 1988

Table 4.2B Netherlands: Total income of agricultural households, 1988 (averages per household).

	concept 1a	concept 1b	concept 2a	concept 2b	concept 3a	concept 3b
Number of units x 1000						
Number of households	82	136	85	120	87	112
Number of persons	306	501	323	438	327	415
Number of consumer units	149	250	157	217	160	205
1 000 HFL						
RECEIPTS						
1 From independent activity	131	85	129	95	127	101
1a net operating surplus from agricultural activity	125	79	122	89	120	95
1b net operating surplus from non-agricultural activity	1	2	1	1	1	1
1c imputed rent of owner dwellings	5	4	5	4	5	5
2 From dependent activity (agric. and non-agric.)	12	23	15	20	15	19
2a gross wages and salaries	9	18	12	15	11	15
2b employers' actual social contributions	3	5	3	4	3	4
3 Property and entrepreneurial income received	11	10	11	11	12	11
3a actual interest	9	9	9	9	10	9
3c income from land and intangible assets	1	2	1	2	2	2
5 Social benefits	9	14	9	13	10	13
6 Other current transfers	0	0	0	0	0	0
7 TOTAL (1+2+3+5+6)	164	133	164	138	163	144
EXPENDITURE						
8 Distributed property and entrepreneurial income	18	12	18	13	17	14
8a paid interest	16	11	16	12	16	13
8b paid rents	2	1	1	1	1	1
10 Current taxes on income and wealth	15	12	15	13	15	13
10a current taxes on income	14	11	14	12	14	12
10b current taxes on wealth	1	1	1	1	1	1
11 Social contributions	25	26	26	25	26	25
12 Other outgoing current transfers	0	0	0	0	0	0
12b private international transfers	0	0	0	0	0	0
12c miscellaneous current transfers	0	0	0	0	0	0
TOTAL (8+10+11+12)	59	51	59	51	59	53
DISPOSABLE INCOME						
13a net disposable income (7-8-10-11-12)						
per household	105	82	105	87	104	91
per household member	28	22	28	24	28	25
per consumer unit	58	45	57	48	57	50

Source: CBS, Socio-Economic Accounts 1988

Table 4.2C Netherlands: Total income of agricultural households, 1988 (structure of income and expenditure).

	concept 1a	concept 1b	concept 2a	concept 2b	concept 3a	concept 3b
Number of units (x 1 000)						
Number of households	82	136	85	120	87	112
Number of persons	306	501	323	438	327	415
Number of consumer units	149	250	157	217	160	205
RECEIPTS (% of total receipts)						
1 From independent activity	80	64	79	69	78	70
1a net operating surplus from agricultural activity	77	60	75	64	74	66
1b net operating surplus from non-agricultural activity	1	1	1	1	1	1
1c imputed rent of owner dwellings	3	3	3	3	3	3
2 From dependent activity (agric. and non-agric.)	7	17	9	14	9	13
2a gross wages and salaries	6	13	7	11	7	10
2b employers' actual social contributions	2	4	2	3	2	3
3 Property and entrepreneurial income received	7	8	7	8	7	8
3a actual interest	6	7	6	6	6	6
3c income from land and intangible assets	1	1	1	1	1	1
5 Social benefits	6	10	6	9	6	9
6 Other current transfers	0	0	0	0	0	0
7 TOTAL (1+2+3+5+6)	100	100	100	100	100	100
EXPENDITURE (% of total expenditure)						
8 Distributed property and entrepreneurial income	30	24	30	26	29	27
8a paid interest	28	22	27	24	27	24
8b paid rents	3	2	3	2	2	2
10 Current taxes on income and wealth	26	24	25	25	26	25
10a current taxes on income	24	22	24	23	24	23
10b current taxes on wealth	2	2	2	2	2	2
11 Social contributions	43	51	45	49	44	48
12 Other outgoing current transfers	0	1	0	1	0	1
12b private international transfers	0	0	0	0	0	0
12c miscellaneous current transfers	0	0	0	0	0	0
TOTAL (8+10+11+12)	100	100	100	100	100	100
DISPOSABLE INCOME (% of total income)						
13a net disposable income (7-8-10-11-12)	64	62	64	63	64	63

Source: CBS, Socio-Economic Accounts 1988

Table 4.2D Total income of agricultural households, 1988 (changes in averages per household compared to concept 1a).

	concept 1a	concept 1b	concept 2a	concept 2b	concept 3a	concept 3b
Number of units (x 1 000)						
Number of households	82	136	85	120	87	112
Number of persons	306	501	323	438	327	415
Number of consumer units	149	250	157	217	160	205
RECEIPTS						
				Per cent		
1 From independent activity	0	-35	-2	-28	-4	-23
1a net operating surplus from agricultural activity	0	-37	-2	-29	-4	-24
1b net operating surplus from non-agricultural activity	0	78	12	33	9	-9
1c imputed rent of owner dwellings	0	-22	-2	-17	-4	-15
2 From dependent activity (agric. and non-agric.)	0	92	24	66	23	62
2a gross wages and salaries	0	89	24	65	23	60
2b employers' actual social contributions	0	101	26	72	25	68
3 Property and entrepreneurial income received	0	-2	0	-2	10	2
3a actual interest	0	-7	-1	-7	2	-4
3c income from land and intangible assets	0	29	1	35	58	44
5 Social benefits	0	53	4	39	6	38
6 Other current transfers	0	23	6	15	4	14
7 TOTAL (1+2+3+5+6)	0	-19	0	-16	0	-12
EXPENDITURE						
8 Distributed property and entrepreneurial income	0	-31	-2	-25	-4	-21
8a paid interest	0	-32	-2	-25	-4	-21
8b paid rents	0	-29	-1	-23	-3	-19
10 Current taxes on income and wealth	0	-20	-3	-18	0	-14
10a current taxes on income	0	-21	-3	-19	0	-15
10b current taxes on wealth	0	-12	-2	-10	4	-7
11 Social contributions	0	2	4	-2	2	0
12 Other outgoing current transfers	0	3	1	4	3	5
12b private international transfers	0	3	1	3	4	6
12c miscellaneous current transfers	0	21	-4	37	-6	-27
TOTAL (8+10+11+12)	0	-44	0	-13	0	-10
DISPOSABLE INCOME						
13a net disposable income (7-8-10-11-12)						
per household	0	-22	0	-17	0	-13
per household member	0	-21	-1	-15	-1	-12
per consumer unit	0	-22	-1	-17	-1	-14

Source: CBS, Socio-Economic Accounts 1988

Table 4.3 Disposable income of agricultural households and other households, 1988 (a comparison).

Concept	Households with as main source of income														All private households
	wages		entrepreneurial income from								transfers with respect to old age		other transfers		
			agriculture		trade and repair of consumer goods		business and personal services		other economic activities and property income						
1a	1b	1a	1b	1a	1b	1a	1b	1a	1b	1a	1b	1a	1b		
Number of units (x 1 000)															
households	3280	3246	82	136	72	72	108	107	88	87	1302	1290	860	854	5792
persons	9500	9363	306	501	230	229	335	331	253	250	2044	2016	1805	1781	14472
consumer units	5225	5156	149	250	121	120	176	174	139	138	1590	1572	1151	1139	8550
DISPOSABLE INCOME															
Total (Mio. Hfl)	138822	136975	8573	11149	5084	5063	7692	7632	4443	4423	41837	41349	21633	21490	228083
<i>Per unit (1 000 Hfl)</i>															
per household	42	42	105	82	71	70	71	71	50	51	32	32	25	25	39
per household member	15	15	28	22	22	22	23	23	18	18	20	21	12	12	16
per consumer unit	27	27	58	45	42	42	44	44	32	32	26	26	19	19	27
Indices (disposable income of households with entrepreneurial income from agricultural as main source of income, concept 1a = 100)															
per household	40	40	100	78	68	67	68	68	48	49	31	31	24	24	38
per household member	52	52	100	79	79	79	82	82	63	63	73	73	43	43	56
per consumer unit	46	46	100	78	73	73	76	76	56	56	46	46	33	33	46

Source: CBS, Socio-Economic Accounts 1988.

CHAPTER FIVE: USE OF ALTERNATIVE DEFINITIONS OF AN AGRICULTURAL HOUSEHOLD IN GERMANY¹⁶

Results from a study commissioned by Eurostat to the Statistisches Bundesamt (StBA), Wiesbaden.

5.1 Introduction¹⁷

5.1.1 The households that are defined as agricultural households in the (revised) target methodology of the TIAH project are those in which the main source of income of the reference person is independent activity in agriculture (farming). This "narrow" definition is in line with the objectives of the TIAH project by permitting a systematic disaggregation of households into socio-professional groups for the purpose of comparing the income situation of households headed by a farmer with that of other occupation groups. During the discussions on defining agricultural households, however, it became apparent that income estimates are useful for certain analytical purposes, based on a "broad" definition comprising all households having some income from agricultural activity. Having results based on a "broad" definition of agricultural households also makes it possible to quantify the income situation of households that do not derive their main income from agricultural activity, this being calculated by a difference method.

5.1.2 The aim of this study is to highlight the possibilities for and limits of income calculation for Germany using a "broad" definition, thus making a contribution to further the methodology. For this purpose, the number of agricultural households is first determined on the basis of various criteria (section 5.2) and the available income is then calculated, taking 1983 as an example (section 5.3).

5.1.3 For the calculation of disposable income by household groups, as currently carried out in Germany within the framework of national accounts and as supplied to the TIAH project, single person households with independent management and multi-person households in which the persons form one income and consumption community are considered as private households. Agricultural households are taken to be households in which the main source of income for the reference person is independent agricultural activity; the disposable income of the household is formed by summing the incomes of each member of the household.

5.1.4 In this special study, three alternative definitions of an agricultural household are used, covering all households in which *some* income from independent agricultural activity is received by:

- a) the reference person;
- b) the reference person or his/her spouse;
- c) any household member.

Each is likely to include a larger number of households than the current "narrow" approach, but the last corresponds to the widest coverage and corresponds to the "broad" definition of an agricultural household that has been proposed and accepted for use within the TIAH project. The numbers of households corresponding to these three definitions are estimated for the years 1982 to 1992. The methods used enable the figures resulting from each definition to be comparable with each other.

5.1.5 In current calculations the number of agricultural households, i.e. those in which the main source of income of the reference person is independent agricultural activity, is calculated from information derived from:

¹⁶ Not including the new Länder

¹⁷ The following abbreviations will be useful when interpreting this chapter:

BML, Federal Ministry for Food, Agriculture and Forestry:

EVS, Einkommens- und Verbrauchsstichprobe (sample survey of income and consumption)

VGR, Volkswirtschaftliche Gesamtrechnungen (national accounts)

- the agricultural reporting series (agricultural census) of the Statistisches Bundesamt,
- the Test Holding Network (farm accounts survey) of the Federal Ministry for Food, Agriculture and Forestry (BML) and
- the Microcensus.

The overall number of persons deriving main incomes from agriculture is brought in line with the annual averages obtained from the occupation statistics.

5.1.6 The estimates that are required to calculate agricultural households in the broad definition are based entirely on special analyses of the Microcensuses in 1982 and 1985 to 1991. No Microcensuses were conducted in 1983 and 1984 owing to the general population census that was planned for 1983. For these two years, the figures have been interpolated. The special analyses of the Microcensus are carried out by household groups and these also form the demographic reference framework.

5.1.7 Information on types of income and transfers, that together make up the disposable income of private households, is provided by the EVS (the five-yearly sample survey of income and consumption). The figures obtained are brought in line with the main parameters of the VGR (national accounts). **Income from agricultural activity**, however, is based in current calculations on the results of the test holding network of the BML and the agricultural reporting series of the Federal Statistics Office. The EVS simply serves as an indicator for income differences as a function of household size and the sex of the reference person. Gross incomes from agriculture and forestry, calculated in the EVS with the aid of a difference method, cannot of course be used directly to determine income levels as it is not sure whether the income represents profits or other liquid resources taken from the holding. In other words, the EVS method does not allow a distinction to be made between the private and business sphere.

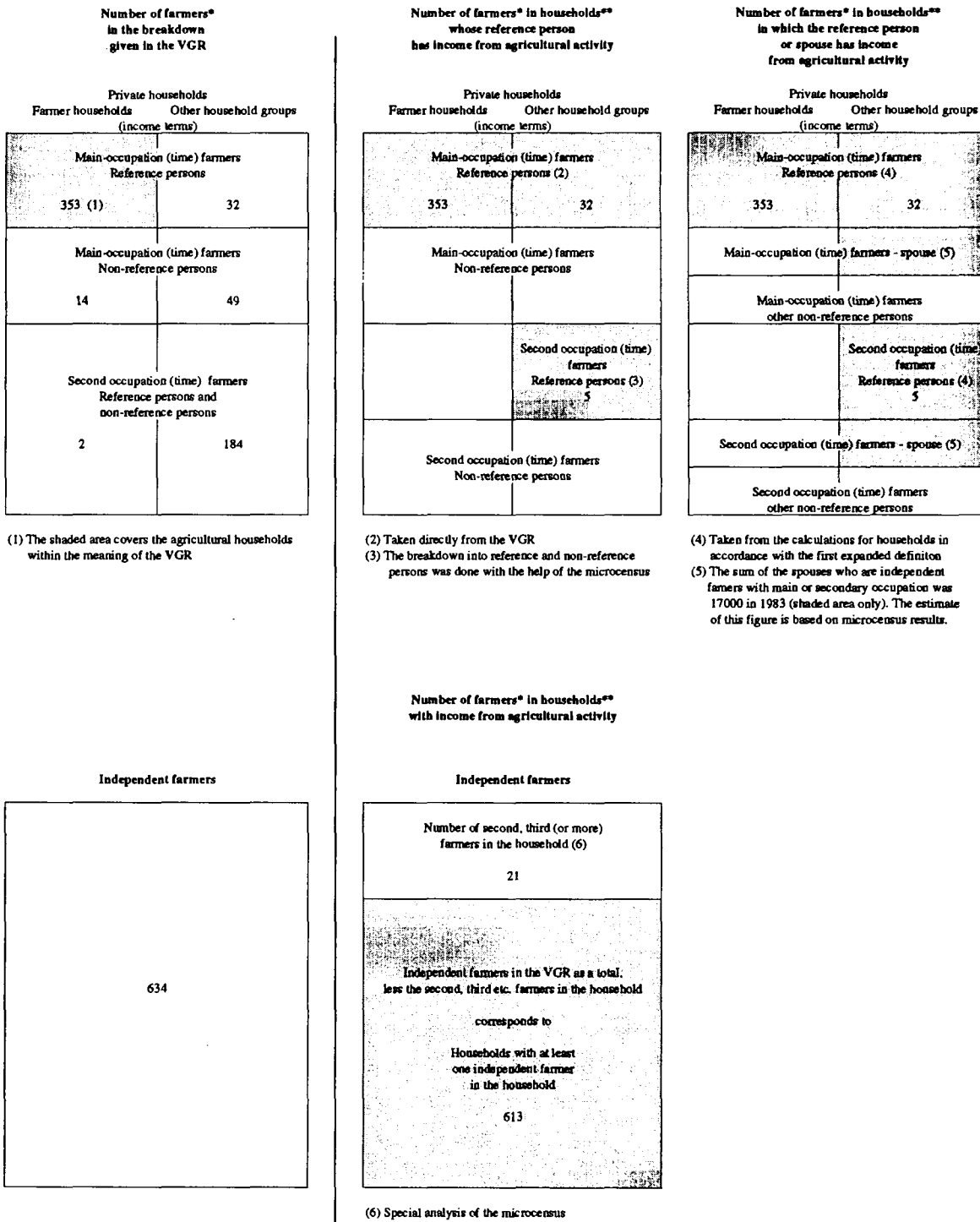
5.1.8 In this study, disposable income was calculated for households under the broadest definition, i.e. those in which any household member derives some income from independent agricultural activity. The reporting year is 1983, as complete EVS results are available for that year. (The final results for the 1988 EVS will not be available until the second half of 1993). The calculations were made at a lower level of detail than normal in respect of types of income and transfers (see Annex 1). For this reason, the comparable results are also shown at the same reduced level of detail.

5.2. Criteria for a broader definition of agricultural households

5.2.1 *Households whose reference person derives some income from agricultural activity.* Under this definition, households are considered agricultural households when the reference person derives income from independent agricultural activity, either as a primary or a secondary source. Farmers with this main activity can be taken directly from the demographic reference framework. Their households are mainly those in which the main source of income of the reference person is independent agricultural activity (farmers under the narrow definition) but they also include households of non-gainfully employed persons when the reference person is a farmer. In particular, this includes the households of reference persons whose main source of income is a pension. In addition, there are households with a reference person having agriculture as the second source of income. Determining the number of these households required a special analysis of the microcensus, splitting up the second-income farmers into reference and non-reference persons. Such a breakdown had not been made before. Figure 5.1 shows the composition of 390,000 households (1983) under the definition presented here.

Figure 5.1 Possible ways of defining agricultural households

Numbers in '000 for 1983



* farmer = person with income from independent agricultural activity
 ** The shaded area covers the households within the respective definition.

Remark:
 Households with agricultural activity as the main source of income cannot be derived from the basic statistics. The results of the micro census especially cannot be used for an exact breakdown of the households of employed persons into socio-economic household groups, since only the main income from gainful activity is described. Only the households in which the reference person is a main occupation (time) farmer are chosen therefore from all households with employed persons.

5.2.2 *Households in which the reference person or his/her spouse derives some income from agricultural activity.* The basis for estimating the number of households under this definition were the calculations, outlined in 5.2.1 above, that relate to the reference persons with income from agricultural activity. To determine the number of households in which the reference person was not an independent farmer, but his or her spouse was such, required once again a special analysis of the microcensus. This was done in a detailed breakdown by household groups. In total, there were 17,000 households in 1983 in which the reference person was not a farmer and whose spouse was active as a main- or secondary-income farmer. If these are added to those households where the reference person was an independent farmer as a main or secondary occupation, the number of agricultural households was 407,000 (see Figure 5.1).

5.2.3 *Households with some income from independent agricultural activity.* This definition of agricultural households is the most comprehensive; it is also the one under which the income from agricultural activity was calculated for 1983 in this study. It covers all households in which any member has income from independent agricultural activity. The calculations were based on special analyses from the microcensus in 1982 and 1985 to 1991; these allowed the number of households to be determined that comprise main- and secondary-income farmers. As two or more farmers may occur in the same household, the normal procedure could not be applied. The number of farmers acting as second or third farmers in a household was determined via two special analyses in the microcensus. The first gave the number of farmers in the microcensus, the second gave the number of households with at least one farmer. The difference between these two gave the number of second and third etc. farmers in households; in 1983; these totalled 21,000 persons. In a further step, the number of second, third and further farmers in a household was subtracted from the number of farmers in the demographic reference framework (independent farmers in accordance with the VGR; 1983: 634,000); the result was the number of households in which any member had income from independent agricultural activity (see Figure 5.1). Table 5.1 gives the numbers of agricultural households in accordance with varying definitions for the years 1982 to 1992; the households determined by the normal VGR method are shown for comparison.

Table 5.1 Germany: Agricultural households (1,000s) under various definitions, 1982 to 1992

Numbers of private households with income from agricultural activity

Year	Derives some income from agricultural activity			VGR concept of an agricultural household*	Column 4 as % of Column 3
	Reference person	Reference person or spouse	Any household member**		
	1	2	3		
1982	397	416	648	362	55.9
1983	390	407	613	353	57.6
1984	388	403	583	349	59.9
1985	383	396	552	345	62.5
1986	372	383	537	336	62.6
1987	357	369	527	319	60.5
1988	346	359	517	308	59.6
1989	335	347	491	298	60.7
1990	329	341	474	289	61.0
1991	316	328	467	275	58.9
1992	308	320	459	267	58.2

* Corresponds with the TIAH "broad" definition of an agricultural household

** Main income source of the reference person is independent agricultural activity

Corresponds with the TIAH "narrow" definition of an agricultural household

5.2.4 Determining the number of agricultural households under various definitions is part of ongoing calculations, as has been stated before, so that only difference values need to be added to the results of the demographic framework. Compared with the household figures, these are small; estimating errors have therefore a limited influence on the overall result. On the other hand, a major factor of uncertainty can result from the number of second-income farmers in the microcensus as these cannot be reconciled with the statistics of the gainfully employed.

5.3 An excursion: attenuating the influence of fluctuating farming profits on the number of agricultural households

5.3.1 Earlier chapters have referred to the fact that, if agricultural households are reclassified annually on the basis of income composition, numbers of agricultural households can be expected to fluctuate, reflecting the instability of income that is a characteristic of farming. It is also theoretically possible for the average income of these fluctuating agricultural household groups to move in a way that does not represent what is happening to incomes if the group were given a more stable composition; it can be argued that a better representation of the changing fortunes of agricultural households is given by preventing short-term reclassifications. Such a system of attenuating change is employed in Germany. Although its relevance is greatest when considering agricultural households defined in the "narrow" way, as adopted both in the national accounts for Germany (VGR) and the TIAH project, it is mentioned here because of the comparisons made between the income results achieved using the existing basis of household classification and the "broad" approach explored in this study.

5.3.2 As mentioned above, the results coming from the BML test holding network are of considerable importance in determining the available income of agricultural households; they are considered both in estimating the income from agricultural activity and in determining the number of agricultural households. The test holding network breaks down agricultural holdings by their commercial character into full-income, subsidiary income and secondary income holdings. The criteria for this classification is the share of the holding or non-holding income in the overall income of the ownership couple. To prevent classification of a holding into one of these categories being dependent on profit fluctuations, such as may be caused by weather conditions, the holding income is not that actually attained but a **standardised** profit. This figure covers the sum of standard gross margins, fixed special costs and overheads as well as neutral receipts and expenditure.¹⁸

5.3.3 The agricultural reporting series of the Statistisches Bundesamt too, that forms a further important basis for calculating income from agricultural activity and the number of agricultural households, similarly does not use *effective* (actual) profits but *standardised* profits. The effects of short-term and random harvest fluctuations on incomes and profits are thus attenuated. As the share of farm income in overall income on the one hand and the number of agricultural households in the VGR on the other hand are linked by definition, this number is also unaffected by fluctuating yields.

5.4 Results

5.4.1 The disposable income of agricultural households (broad definition) is not shown at the level of detail of the results normally sent to Eurostat for the TIAH project. They differ in the following ways:

- Gross income from agriculture, from other entrepreneurial activity and from rent from dwellings is only recorded in the EVS including the non-withdrawn profits of unincorporated enterprises (interpreted as increases in the capital value of plant and buildings, which may be negative, for example if farmers

¹⁸ See p22 of *Agrarbericht der Bundesregierung 1993*. Bonn: BML, 1993, and p173 of *Materialband zum Agrarbericht*. Bonn: BML, 1993.

anticipating retirement, run down the value of their capital stock¹⁹). For this reason, disposable incomes are only shown including the non-withdrawn profits.

- In the present special calculation, only gross wages and salaries are recorded; actual and imputed employer social contributions are not considered as they are irrelevant for calculating disposable income.
- Property income is only shown as a balance item and not broken down as usual into incomings and outgoings.
- As far as current transfers received are concerned, the special calculation distinguishes between social benefits and other current transfers received; the account also includes payments from indemnity insurance. Negative current transfers are composed of social contributions, direct taxes (excluding church tax) and other current transfers. The results normally sent to the TIAH project break down social contributions even further and show net premiums for indemnity insurance as a separate item.

5.4.2 Comparing the **overall income aggregates** for agricultural households in the normal VGR definition (corresponding to the "narrow" TIAH definition) and for agricultural households defined in the "broad" way to include those with any income from farming (see Table 5.2) shows that in 1983 the latter had an aggregate disposable income that was around DM 12 000 mill. (or a good 80%) higher than households whose reference person derived most of his income from agriculture. This was due to the "broad" approach bringing into the calculation virtually three times the quantity of gross wages and salaries and higher social benefits. For the latter, pension payments were obviously of great significance. The transfers made by the households in the "broad" definition were a good 70% above those of the VGR households.

5.4.3 In terms of **disposable income per household**, agricultural households under the "broad" definition had an average income a good DM 2,000 (or around 5%) higher than that of the conventional "narrow" agricultural households. The latter had a gross income from agriculture in 1983 that was around DM 10,000 higher and a gross wages and salary figure that was lower by the same amount. Whereas the average incoming current transfers of households with some income from independent agricultural activity exceeded that of the VGR households by DM 1,600 (or 20%), the current transfers paid out by both household groups were virtually the same.

5.4.4 Taken as a whole, Table 5.2 shows that, in 1983, the income situation of agricultural households was improved when the "broad" definition was applied. This is because households that do not primarily earn their living from agricultural activity had a higher income on average than the VGR agricultural households, which are defined using the "narrow" approach. It should be noted that this finding contrasts with those for Ireland and the Netherlands, given in earlier chapters of this publication. There the additional households brought in by switching from the "narrow" to the "broad" definitions of an agricultural household had relatively low incomes and tended to lower the overall average income per household. Such differences in findings suggest that more analysis covering a wider range of countries and more years are necessary before any generalities can be established concerning the relationships of results estimated using the "broad" and "narrow" definitions, if indeed such general patterns exist.

¹⁹ See footnote to Table D2 of the TIAH 1992 Report.

Table 5.2 Germany: Income of agricultural households in 1983

		Households where Reference person derives income mainly from agricultural activity*	All households with some income from agricultural activity **	Households where Reference person derives income mainly from agricultural activity*	All households with some income from agricultural activity**	Column 4 as % of Column 3
		1	2	3	4	5
		<i>Mio. DM</i>		<i>DM per household</i>		
	Gross income from agricultural activity	9251	10050	26206	16392	62.6
+	Gross income from other entrepreneurial activity	549	1538	1554	2509	161.5
+	Gross income from rent of dwelling	1256	1826	3559	2978	83.7
+	Gross wages and salaries	5419	15608	15351	25459	165.8
+	Property income received (balance)	1319	2100	3736	3425	91.7
+	Current transfers received	2836	5888	8035	9604	119.5
	Social benefits	1659	4418	4699	7206	153.4
	Others	1178	1470	3336	2397	71.9
-	Outgoing current transfers	6071	10447	17200	17039	99.1
	Social contributions	3082	5320	8730	8677	99.4
	Direct taxes (excluding church tax)	1512	2912	4282	4750	110.9
	Other	1478	2215	4188	3613	86.3
=	Disposable income ***	14558	26563	41241	43327	105.1

* Agricultural households in accordance with the VGR methodology correspond with the TIAH "narrow" agricultural household

** Corresponds with the TIAH "broad" agricultural household

*** Including non-withdrawn profits from enterprises without legal personality

Annex A

Methodology of calculation in Germany of the income of agricultural households under the extended definition in 1983

A.1 Bases of calculation

The basis for calculating income and transfer headings is the EVS (sample survey of income and consumption), which is carried out every five years by the Statistisches Bundesamt. Owing to methodological differences between the VGR (national accounts) and the EVS, as well as certain gaps in EVS data, other sources of information are used for individual types of income or transfer. Examples are the calculation of unemployment allowances and social assistance which are partly based on the unemployment statistics of the Federal Labour Office and the social assistance statistics of the Statistisches Bundesamt. Information from the test holding network of the BML is drawn on to calculate income from independent agricultural activity. So far, the EVS has not covered households with a foreign reference person and households with a particularly high income: in 1983, the cut-off point was a monthly net income of 25,000 DM. Information on these two household groups must be taken from other sources (microcensus, income tax statistics).

A simplified procedure is used to calculate the income of agricultural households in the extended definition of an agricultural household that forms the focus of this study; income is here made up of only 34 different types of income and transfers (see Annex B). Special analyses of the 1983 EVS are necessary because of modified household structures. One process covers those households deriving income from agricultural activity, a second takes into account all EVS households included in the normal calculation of disposable income. For each of the 34 income and transfer types, the average amounts per household of the households covered by the EVS are broken down in detail²⁰ and measured against the corresponding variables of the VGR. Adaptation and grossing-up factors are formed and these allow the average amount for households with income from agricultural activity in the EVS to be grossed up to the corresponding VGR households with agricultural income. This method is described in greater detail in Annex C but involves some problems because

- there are differences in methodology between the income parameters of the EVS and the VGR;
- in the EVS, households of high incomes and households with foreign reference persons are not covered;
- some types of income and transfer are not included in the EVS though they are necessary to determine disposable income.

A study must therefore be made of the differences between the EVS and VGR in respect of their influence on the grossing-up of the income of agricultural households with the aid of adaptation factors and whether these factors must therefore be modified.

A.2 Methodological differences between the income concepts of the EVS and VGR

Methodological differences between the income parameters of these two systems are mainly in respect of receipts from rent and hire. In the EVS, these headings cover the renting of dwellings, including owner rent, and also rent for garages and renting of land. The expenditure for the maintenance of land and buildings is already deducted. In the VGR, certain headings are accounted for in a different manner:

- garage rent is included under income from other entrepreneurial activity;
- rent from land is part of property income;
- expenditure on maintenance corresponds to intermediate consumption in the renting of dwellings.

²⁰ Households are broken down by 10 socio-professional groups and 5 different household sizes. See Annex C.

The consequence is that rent for dwellings in the EVS, excluding garages and without receipts from land, corresponds to gross rents (production value) less intermediate consumption in the VGR. Gross income from the renting of dwellings is derived from rents by the following single-column account:

production value (gross rent)	
- intermediate consumption	
- depreciation	
- taxes linked to production less subsidies	
- income from paid employment	
- the balance of interest	
<hr style="width: 50%; margin: 0 auto;"/>	
=	gross income from rent of dwellings

To calculate the adaptation factors, the average variables in the VGR are first adapted to the EVS by adding gross rent less intermediate consumption to garage rent and net rent from land. With the adaptation factors calculated at this stage, the rent received by households that derive income from agricultural activity is now grossed-up to the detailed breakdown of household groups in the EVS. Receipts from garage rents and leasing of land do not change the income under these two major headings in the EVS. Garage rents play only a limited part in country regions and agricultural net rent is paid to those households who have already given up their holding. If, however, a household rents agricultural land and itself runs a holding, the rent it obtains is part of income from agricultural entrepreneurial activity.

Gross income from the renting of dwellings is derived from gross rent less intermediate consumption with the aid of the ratio between these two variables for agricultural households in the VGR, as a function of household size. Agricultural households are taken as the basis, as the living conditions of these households in the extended definition is generally more comparable with those in the VGR than worker or pensioner households; it is these latter two categories to which the broadly defined agricultural households in the VGR are mainly allocated.

Income from entrepreneurial activity is corrected accordingly. As this item in the EVS contains no garage rental, this variable is calculated out of the corresponding average values in the VGR. The resulting adaptation factor can be used to gross-up income from other entrepreneurial activity of agricultural households in the EVS. No special calculation is made for the garage rental as agricultural households are scarcely concerned by this item.

A.3 Taking into consideration high-income households and households with foreign reference persons

Analyses of the microcensus show that, of the households with income from agricultural activity, few have a foreign reference person. The same applies generally to the high-income households unless their income is mainly from both agriculture and forestry, but this is then included in agricultural income in accordance with the VGR methodology. For certain types of income, therefore, **corrective adaptation factors** are necessary for individual household groups. They level out methodological differences relating to high-income households and those with foreign reference persons.

- a) **Income from other entrepreneurial activity** is grossed up for self-employed persons outside agriculture for all household sizes by means of a standard adaptation factor derived from normal calculations. This factor refers only to EVS-identical households; households of reference persons with particularly high incomes are not therefore included.

- b) The adaption factors for **property income** (interest and dividends) can be calculated directly for the EVS households as calculations are made separately for EVS households, households with foreign reference persons and high-income households.
- c) In the case of **gross rent**, which serves as a basis for calculating gross income from the renting of dwellings, deductions are made for the high income drawers in the households of independent households outside agriculture (other self-employed) and other non-gainfully employed.
- d) It is not necessary to correct **gross wages and salaries** in worker households as the percentage of high income drawers here is very low and average income therefore affected very little. Although the share of households with a foreign reference person in all worker households is quite significant - it just reached 15% in 1983 - a correction is not made for gross wages and salaries. The amount of a deduction for a possibly lower average income of foreign households is uncertain and cannot be estimated reliably. In any event, a deduction would have very little effect on average gross wages and salaries of households with income from agricultural activity. If one assumes, for example, that foreign worker households have 10% less average income than all worker households together, the average income of the entire group falls by 1.5%. For households with income from agricultural activity, this percentage would probably be much smaller as adaptation is not necessary for the VGR agricultural households, that make up approximately half of those in the extended definition. In addition, worker households have a fairly low share of the overall number of households.
- e) For **transfers received and paid**, apart from direct taxes, no special analysis is made of high-income households as the statistical material is lacking. Adaptation factors for income tax are calculated from the sum of wages and income tax as negative amounts can arise for regular taxpayers. The income tax (excluding wages tax) paid is balanced out against the refund of excess tax paid. As this figure can include the excess wages tax paid, negative tax amounts may arise. The figures for income tax payers are corrected for the drawers of high incomes in the households groups of self-employed persons outside agriculture and of other non-gainfully employed persons. Under types of transfer, transfers to other countries by foreign workers are significant for the households with foreign reference persons. They are therefore calculated out of the average VGR amounts when determining adaptation factors.

A.4 Supplementing the income and transfer types not covered in the EVS

A series of income and transfer types which are necessary to derive available income are not recorded in the EVS and must therefore be estimated:

- other types of property income (interest from life insurance, net land rent, income from licenses, non-material values etc.);
- rent from consumer loans;
- social benefits received;
- transfers received and made from and to indemnity insurance of enterprises without legal personality;
- social contributions.

For these variables, the same average amounts per household group are applied as in the current calculations for the VGR. However, other property income is taken out of agricultural net rent as it is mostly attributable to households that have already given up their holding and rented out their land. If, however, persons with agriculture as a secondary occupation rent parts of their land, the income from this source is considered as agricultural entrepreneurial income, and is, therefore, accounted for on the holding side.

Annex B

Types of income and transfers included in the calculations

The following types of income, received and paid out, are included in the available income of agricultural households in the broad definition:

Income received:

- Gross wages and salaries
- Income from agriculture
- Income from other entrepreneurial activity
- Interest and dividends
- Rent from dwellings, production value less intermediate consumption
- Value of products taken from own garden
- Pensions from legal pension funds
- Pensions from legal accident insurance
- Pensions from public funds
- Pensions from public institutions providing additional pensions
- War victim's pensions
- Other social security benefits
- National assistance, including one-time
- Unemployment pay and unemployment relief
- Other payments to promote employment
- Children's allowances
- Living allowance
- Assistance under the federal law on promoting training
- Allowances in the public service
- Firm's pensions
- Other transfers received from public bodies
- Transfers received from private insurances
- Transfers received from private non-profit organisations
- Transfers received from other private households

Outgoing income transfers:

- Social contributions
- Wages tax
- Tax on income from entrepreneurial activity and assets
- Church taxes
- Contributions to private sickness insurance schemes
- Contributions for vehicle insurance
- Contributions for other private insurances excluding life insurance
- Donations, maintenance assistance (excluding transfers to own country by foreign workers)
- Vehicle taxes
- Other direct taxes

Annex C

Calculating the components of disposable income of agricultural households under the broad definition - example of gross wages and salaries

For the calculation of disposable income under the broad definition, the total of gross wages and salaries is calculated to the following level of detail. Households are distinguished by household size

- One person
- Two persons
- Three persons
- Four persons
- Five or more persons

and by the main type of bread winning for the reference person. This latter parameter distinguishes households of

- Farmers
- Other self-employed persons
- Civil Servants
- Salary earners
- Wage earners
- Persons receiving unemployment assistance
- Pensioners (social insurance)
- Pensioners (other systems)
- Persons receiving social assistance
- Others

For each household type, the average gross wages and salary per household in the VGR is compared with the corresponding figure from the EVS and a grossing-up factor is formed. In a second stage, this sum per EVS household drawing agricultural income is grossed up with this factor to the gross wages and salary sum per VGR household with agricultural income.

Example: Worker households with five or more persons

DM per household (annual income 1993)

VGR overall	54 817
EVS overall	52 431
Grossing-up factor	1,05
DM per household (annual income 1983)	
EVS households with agricultural income	50 094
VGR households with agricultural income	52 373

Corresponding calculations to the same level of detail are also carried out for the other types of income and transfer mentioned in Annex B.

APPENDIX: THE USE OF ALTERNATIVE DEFINITIONS OF AN AGRICULTURAL HOUSEHOLD IN THE USA

For purely illustrative purposes it is of interest to turn to results of applying alternative definitions of an agricultural household in the USA, and in particular to show the difference between alternative "broad" approaches and between these and "narrow" approaches. The total farm-related population in 1983 consisted of 3.6m. households; this population was identified by any one of three following criteria: (a) residence on a farm²¹ in rural America (this included both independent and dependent households; (b) where one member of the household was employed primarily as a farmer, and (c) where at least one member of the household received some farm self-employment income (independent activity in agriculture). The income criterion is a "broad" definition in the sense of the TIAH project, the occupation criterion similar to its main-occupation of a reference person approach. Residence is not a criterion suitable for analysis in the present context, so attention should be focused on the income and occupation criteria. The basis of this classification is the Farm Costs and Returns Survey (FCRS); the Survey is known to undercount the total number of farms (by roughly 0.7m in a total of 2.2m in 1986) and this understatement is known to be greater among small farms (Ahearn and Lee 1991). Table A1 gives the numbers of households associated with the three versions of the farm population; Table A2 shows numbers of persons associated with single and multiple criteria.

Table A1 USA: Numbers of households in alternative "broad" definitions of the farm population (residence, income or main occupation of one member), 1983

Criterion of "broad" definition	Number of households
Total farm-related population	3.6 million
(a) Residence on a farm in rural America	1.8 million
(b) One member of the household employed <u>primarily</u> as a farmer	2.2 million
(c) At least one member of the household received some farm self-employment income (independent activity in agriculture)	2.0 million

Source: Banks, V., Butler, M. and Kalbacher, J. (1989) Alternative Definitions of Farm People. Washington: USDA ERS.

Table A2 USA: Total farm-related population by qualifying criteria, 1983

Criterion	1,000 persons	Percent
Total	11,283	100.0
Farm resident households only	1,521	13.5
Farm occupation households only	2,972	26.3
Farm income households only	1,568	13.9
Farm resident and farm occupation households	515	4.6
Farm resident and farm income households	816	7.2
Farm occupation and farm income households	1,133	10.0
Farm resident and farm occupation and farm income households	2,759	24.5

Source: Banks, V., Butler, M. and Kalbacher, J. (1989) Alternative Definitions of Farm People. Washington: USDA ERS.

The above table can be reworked to exclude those households brought in solely by residence; it follows that these excluded households have no income from independent activity in agriculture and no-one has farming as their main occupation, though some members of the household may have farming as a subsidiary

²¹ From 1974 a farm is a place in a rural area from which agricultural products of \$1,000 or more were sold in the reporting year.

occupation (though they obtain no income from it). Those still covered have some income from farming (to any member) and/or have one member with farming as their main occupation. Thus approach is similar to the application of a "broad" income criterion in the European Union context. Table A3 shows that a "broad" income criterion would capture the majority but not all those households that would satisfy either the income or the main occupation criterion, covering 64 per cent of all members; another 36 per cent of members were in households that earned no income from farming but where one member had farming as their main occupation. A greater number of households and members would be captured if the criterion was that farming was the main occupation of one household member (76 per cent of members in households that satisfy either the income or occupation criteria), but this approach includes many households where no income was generated from their farming. These differences underline the importance of making clear whether the "broad" definition is essentially required to investigate the income situation of those households that derive an income from farming or those where someone is primarily engaged in farming activity.

Table A3 USA: Total farm-related population by selected qualifying criteria (some income to the household or main occupation of one member, 1983)

Criterion	1,000 persons	Percent
Total	9,763	100.0
Farm occupation households only	3,487	35.7
Farm income households only	2,384	24.4
Farm occupation and farm income households	3,892	39.9

Another approach, that throws light onto the relative sizes of the "broad" and "narrow" definitions, comes from analysing the whole of the coverage in the FCRS by main source of income of the farm household and main occupation of the farm operator (equivalent to holder). Note that only the operator is considered here when applying the occupation criterion, in contrast with the tables given above, which applied to the occupation of any member of the farm household. The numbers of farms and their relative importance in the FCRS is reproduced in Table 11. It should be noted that there is a mixture of household and reference person approaches. Some 62 per cent of FCRS farms satisfied the main occupation (of operator) criterion, and 44 per cent the main income (of household) criterion. Only 40 per cent satisfied both criteria. About one third failed both criteria, and this was likely to have risen to 40-50 per cent of all US farms when corrections are added for the nature of the FCRS sample. Therefore perhaps up to half of the farms in the USA would not be classed as being occupied by agricultural households when defined in the "narrow" sense.

Table A4 USA: Two-way classification of farms in the Farm Costs and Returns Survey (by main income of household and operator's main occupation), 1986

	Major cash income source from off-farm	Major cash income source from farm
Main occupation of operator farming	343,845 farms (22%) 11% of production 17% of area	603,248 farms (40%) 76% of production 64% of area
Main occupation of operator is non-farming	492,366 farms (33%) 5% of production 10% of area	76,719 farms (4%) 8% of production 10% of area

Source: US Department of Agriculture *1986 Farm Costs and Returns Survey* quoted in Ahearn and Lee (1991)

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