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**THE EUROPEAN PARLIAMENT**

**THE COUNCIL**

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**REGULATION  
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
AMENDING REGULATION (EC) NO 138/2004  
AS REGARDS REGIONAL ECONOMIC ACCOUNTS FOR AGRICULTURE**

**REGULATION (EU) 2022/...**  
**OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**of 6 April 2022**

**amending Regulation (EC) No 138/2004**  
**as regards regional economic accounts for agriculture**

**(Text with EEA relevance)**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 338(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Acting in accordance with the ordinary legislative procedure<sup>1</sup>,

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<sup>1</sup> Position of the European Parliament of 8 March 2022 (not yet published in the Official Journal) and decision of the Council of 29 March 2022.

Whereas:

- (1) Regulation (EU) No 549/2013 of the European Parliament and the Council<sup>1</sup> sets up the European System of Accounts 2010 ('ESA 2010') and contains the reference framework of common standards, definitions, classifications and accounting rules for drawing up the accounts of the Member States for the statistical requirements of the Union.
- (2) Regulation (EC) No 138/2004 of the European Parliament and the Council<sup>2</sup> sets up the economic accounts for agriculture ('EAA') in the Union by providing for the methodology and the time-limits for the transmission of the agricultural accounts. The EAA are satellite accounts of national accounts, as provided for by ESA 2010, with the purpose of obtaining results that are harmonised and comparable between the Member States in order to draw up the accounts for the purposes of the Union. In 2016, the European Court of Auditors published a special report No 1/2016 entitled 'Is the Commission's system for performance measurement in relation to farmers' incomes well designed and based on sound data?'. That report includes sound and relevant observations and recommendations regarding EAA and Regulation (EC) No 138/2004.

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<sup>1</sup> Regulation (EU) No 549/2013 of the European Parliament and the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013, p. 1).

<sup>2</sup> Regulation (EC) No 138/2004 of the European Parliament and of the Council of 5 December 2003 on the economic accounts for agriculture in the Community (OJ L 33, 5.2.2004, p. 1).

- (3) The regional economic accounts for agriculture ('REAA') are a regional-level adaptation of the EAA. National figures alone cannot reveal the full and sometimes complex picture of what is happening at a more detailed level. Therefore, regional-level data help to increase the understanding of the diversity that exists between regions, complement information for the Union, the euro area and individual Member States, while responding to the increased need for statistics for accountability, and increase the level of harmonisation, efficiency and consistency regarding Union agricultural statistics. The REAA therefore need to be integrated into Regulation (EC) No 138/2004 in terms of methodology and the transmission programme of data.
- (4) Statistics are no longer considered to be just one among many sources of information for policy-making purposes but instead play a central role in the decision- making process. Evidence- based decision- making requires statistics that meet high- quality criteria, as set out in Regulation (EC) No 223/2009 of the European Parliament and of the Council<sup>1</sup>, in accordance with the purposes they are serving.

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<sup>1</sup> Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities (OJ L 87, 31.3.2009, p. 164).

- (5) High-quality statistical regional-level data are a central tool for the implementation, monitoring, evaluation, review and assessment of the economic, environmental and social impact of policies related to agriculture in the Union, in particular the common agricultural policy ('CAP'), including rural development measures, the CAP's new delivery model and national Strategic Plans, as well as Union policies relating to, inter alia, the environment, climate change, biodiversity, the circular economy, land use, balanced and sustainable regional development, public health, animal welfare, food safety and security and the United Nations sustainable development goals. The REAA are also crucial for assessing accurately the contribution of the agricultural sector to the achievement of the European Green Deal, in particular the Farm to Fork Strategy and the Union biodiversity strategy. There is increasing recognition of the role of regions and regional data in the implementation of the CAP. Regions represent an important driver for jobs and sustainable economic growth in the Union and provide better data for assessing the sustainability of the agricultural sector for the environment, people, regions and the economy.
- (6) In accordance with Regulation (EC) No 1049/2001 of the European Parliament and of the Council<sup>1</sup>, the public should be granted access to the data collected under this Regulation that have not been published.

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<sup>1</sup> Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145, 31.5.2001, p. 43).

- (7) Regulation (EC) No 223/2009 provides the legal framework for European statistics and requires Member States to comply with the statistical principles and quality criteria set out in that Regulation. Quality reports are essential for assessing, improving and communicating on the quality of European statistics. The European Statistical System Committee ('ESSC') has endorsed the single integrated metadata structure as the European Statistical System standard for quality reporting, thereby helping to satisfy, through uniform standards and harmonised methods, the statistical quality requirements laid down in Regulation (EC) No 223/2009, in particular those set out in Article 12(3) thereof. Resources should be used optimally and the response burden should be minimised.
- (8) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission in respect of the arrangements for, and the content of, the quality reports. Implementing powers should also be conferred on the Commission in respect of possible derogations from REAA requirements. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council<sup>1</sup>.

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<sup>1</sup> Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

- (9) The EAA provide important annual macroeconomic data to European policy-makers three times per year as provided for in Annex II to this Regulation. The current transmission deadline for the EAA second estimates, one of those three data transmissions to be carried out per year, does not provide much time after the end of the reference period to collect improved data compared to the data provided for the EAA first estimates. To improve the quality of the EAA second estimates, the relevant transmission deadline needs to be slightly postponed.
- (10) Regulation (EC) No 138/2004 should therefore be amended accordingly.
- (11) Since the objective of this Regulation, namely the integration of REAA into the current legal framework for European statistics on EAA, cannot be sufficiently achieved by the Member States but can rather, for reasons of consistency and comparability, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on the European Union. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.
- (12) The ESSC has been consulted,

HAVE ADOPTED THIS REGULATION:

## *Article 1*

Regulation (EC) No 138/2004 is amended as follows:

(1) In Article 3, paragraph 2 is replaced by the following:

'2. The first transmission of data shall take place in November 2003.

However, the first transmission of data for the regional economic accounts for agriculture ('REAA') at NUTS 2 level within the meaning of Regulation (EC) No 1059/2003 of the European Parliament and of the Council\* shall take place by 30 September 2023.

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\* Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003, p. 1).';



(2) The following Articles are inserted:

*'Article 3a*

*Dissemination of statistics*

Without prejudice to Regulation (EC) No 1367/2006 of the European Parliament and of the Council\* and Regulation (EC) No 223/2009, the Commission (Eurostat) shall disseminate the data transmitted to it in accordance with Article 3 of this Regulation online, free of charge.

*Article 3b*

*Quality assessment*

1. Member States shall take the measures necessary to ensure the quality of the data and metadata transmitted.
2. For the purpose of this Regulation, the quality criteria set out in Article 12(1) of Regulation (EC) No 223/2009 shall apply to the data to be transmitted in accordance with Article 3 of this Regulation.

3. The Commission (Eurostat) shall assess the quality of the data transmitted. For that purpose, Member States shall transmit a quality report to the Commission (Eurostat), for the first time by 31 December ... [the year starting 1 January following 24 months after the date of entry into force of this amending Regulation], and every five years thereafter, for the data sets transmitted during the reporting period.
4. In applying the quality criteria set out in Article 12(1) of Regulation (EC) No 223/2009 to the data to be transmitted in accordance with Article 3 of this Regulation, the Commission shall, by means of implementing acts, define the modalities, structure and assessment indicators for the quality reports referred to in paragraph 3 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 4a(2) of this Regulation. They shall not impose a significant additional burden or cost on the Member States.
5. Member States shall provide the Commission (Eurostat) without delay with any relevant information or change with regard to the implementation of this Regulation that would, in any substantial way, influence the quality of the data transmitted.

6. Upon a duly justified request from the Commission (Eurostat), Member States shall, without delay, provide any additional clarification necessary to assess the quality of the statistical data.

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\* Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Union institutions and bodies (OJ L 264, 25.9.2006, p. 13).';

- (3) The following Articles are inserted:

*'Article 4a*

*Committee procedure*

1. The Commission shall be assisted by the European Statistical System Committee established by Regulation (EC) No 223/2009. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

## *Article 4b*

### *Derogations*

1. Where the application of this Regulation would necessitate major adaptations in a national statistical system of a Member State as regards the implementation of Chapter VII of Annex I, and of the transmission programme of data for REAA as referred to in Annex II, the Commission may adopt implementing acts granting derogations to that Member State for a maximum duration of two years. The first date for transmission of the data for REAA shall, however, not in any event be later than 30 September 2025. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 4a(2).
  2. The Member State that decides to apply for a derogation referred to in paragraph 1 shall submit a duly reasoned request for such a derogation to the Commission by ... [three months after the date of the entry into force of this amending Regulation].
  3. The Union may provide financial contributions from the general budget of the Union to the national statistical institutes and other national authorities referred to in Article 5(2) of Regulation (EC) No 223/2009 in order to cover the implementation costs of this Regulation when the setting up of REAA necessitates major adaptations in the national statistical system of a Member State.';
- (4) Annex I is amended in accordance with Annex I to this Regulation;

(5) Annex II is replaced by the text set out in Annex II to this Regulation.

*Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Strasbourg,

*For the European Parliament*

*The President*

*For the Council*

*The President*

## ANNEX I

Annex I to Regulation (EC) No 138/2004 is amended as follows:

(1) In the 'Contents', the following chapter is added:

'VII. Regional economic accounts for agriculture ('REAA')

A. General principles

1. Introduction
2. Regional economy, regional territory
3. Basic unit in the compilation of the REAA
4. Methods of compiling the REAA
5. Concepts of residence and territory
6. Agricultural industry and characteristic units

B. Transactions in products

1. Output

2. Intermediate consumption
  3. Gross capital formation
- C. Distributive transactions and other flows
1. General rules
  2. Value added
  3. Consumption of fixed capital
  4. Subsidies
  5. Taxes
  6. Compensation of employees
  7. Net operating surplus
  8. Interest, rents
  9. Agricultural entrepreneurial income: general calculation rules
- D. A brief look at implementation
1. Introduction

2. Defining regional agriculture
3. Measuring agricultural output
4. Inseparable non-agricultural secondary activities
5. Intermediate consumption';

(2) In point 1.27, the third indent is replaced by the following:

'— by convention, they may not include production of GFCF of non-agricultural products (such as buildings or machines) for own account. That production of GFCF of non-agricultural products for own final use is presumed to be a separable activity and is recorded as the production of an identifiable local KAU. Accommodation services made available to employees as remuneration in kind must be treated in a similar manner (they are recorded as remuneration in kind in the generation of income account),';

(3) Point 2.006 is replaced by the following:

'2.006. In the EAA, prices shall be recorded either to the nearest whole number or correct to one or two decimal places, depending on the statistical reliability of the price data available. Relevant price information on input and output is necessary to compile the EAA.';



(4) In point 2.108, point (g) is replaced by the following:

'(g) remuneration for services contained in gross premiums of insurance taken out to provide the enterprise with coverage for risks such as the loss of livestock, damage by hail, frost, fire and gales. The remainder, i.e. the net premium, is the component of the gross premium paid which is available to insurance companies for settling claims.

An accurate breakdown of the gross premiums into the two components can only be done for the national economy as a whole, as is done for the national accounts. The allocation of the service component between production branches is generally done using adequate breakdown keys, in connection with the construction of input-output tables. Reference shall therefore be made to national accounts when completing that item in the EAA (for the recording of subsidies related to insurance services, see 3.063, footnote 1);';

(5) In point 2.136, the third indent is replaced by the following:

'— changes in classification or structure of fixed assets: e.g. changes in the economic purpose of agricultural land, dairy livestock intended for meat production (cf. 2.149, footnote 1) or agricultural buildings which have been altered for private or other economic use.';

(6) The following chapter is added:

'VII. REGIONAL ECONOMIC ACCOUNTS FOR AGRICULTURE ('REAA')

A. GENERAL PRINCIPLES

1. Introduction

7.01. Regional accounts play an important role in the formulation, implementation and evaluation of regional policies. Objective, reliable, consistent, coherent, comparable, relevant and harmonised regional statistical indicators provide a firm foundation for policies aimed at reducing economic and social disparities between the regions of the Union.

7.02. The REAA are a regional-level adaptation of the EAA.

7.03. The REAA comprise the same set of accounts as the EAA, but conceptual and measurement problems result in a set of accounts for regions which are more limited in scope and detail than EAA at national level.

7.04. As regional accounts, the REAA shall be compiled on the basis of regional data collected directly, and of national data that have regional breakdowns based on assumptions. The lack of sufficiently complete, timely and reliable regional information requires assumptions in compiling regional accounts. That implies that some differences between regions are not necessarily reflected in regional accounts (ESA 2010, 13.08).

## 2. Regional economy, regional territory

7.05. Any compilation of regional accounts, whether they refer to industries or institutional sectors, needs a strict definition of the regional economy and regional territory. In theory, the agricultural industry in a region covers the units (agricultural holdings) engaged in agricultural activities (cf. 1.60 to 1.66) on the regional territory.

7.06. A regional economy of a country is part of the total economy of that country. The total economy is defined in terms of institutional units and sectors. It consists of all the institutional units that have a centre of predominant economic interest in the economic territory of a country. The economic territory does not coincide exactly with the geographic territory (cf. 7.08). The economic territory of a country is divided into regional territories and the extra-regio territory (ESA 2010, 13.09).

- 7.07. The regional territory, as defined in the ESA 2010, consists of that part of the economic territory of a country that is directly assigned to a region. Free zones, bonded warehouses and factories under customs control, are attached to the regions where they are located.
- 7.08. However, that division of territory is not totally consistent with the concept of national economic territory as used by the national accounts. The extra-regio territory is made up of parts of the economic territory of a country which cannot be attached directly to a single region, and which are excluded from the REAA, i.e.:
- (a) the national air-space, territorial waters and the continental shelf lying in international waters over which the country enjoys exclusive rights;
  - (b) territorial enclaves, i.e. geographic territories situated in the rest of the world and used, under international treaties or agreements between States, by general government agencies of the country (embassies, consulates, military bases, scientific bases, etc.);
  - (c) deposits of oil, natural gas etc. in international waters, outside the continental shelf of the country, worked by resident units.

7.09. The Nomenclature of Territorial Units for Statistics (NUTS) classification established by Regulation (EC) No 1059/2003 of the European Parliament and of the Council\* provides a single, uniform breakdown of the economic territory of the Union. The REAA require statistics at NUTS 2 level as commonly established under the current arrangements under that Regulation. For national purposes, regional accounts may also be compiled at a more detailed regional level, namely at NUTS 3 level, where applicable (ESA 2010, 13.12).

3. Basic unit in the compilation of the REAA

7.10. The units used for the regional accounts by industry are local KAUs. The local KAU is the observable form of the production unit.

7.11. The statistical approach (industry) "makes do" with an observable unit even if that means deviating from the single activity. As with the 2008 SNA, the ESA 2010 prefers the statistical approach and advocates the local KAU for the compilation of national accounts by industry. They thus define the same unit for the industries whether those are covered at regional or national level.

7.12. Like the EAA, the REAA use the agricultural holding – "adapted" in line with certain conventions to comply with the objectives in question – as the basic unit for the agricultural industry. There are two crucial reasons for that choice. On the one hand, the agricultural holding unit is the local KAU for agriculture (cf. 1.09 to 1.17), defined as that part of a KAU which refers to the local level. The local KAU is also the most appropriate unit for the agricultural industry, even if it includes non-agricultural secondary activities, which cannot be shown separately from the agricultural activities (cf. 1.15 and 1.16, 1.25 to 1.32).

7.13. Using the agricultural holding as the basic unit means including the non-agricultural secondary activities of those agricultural holdings in the REAA (cf. 7.12). Since the purpose of the EAA is to measure, describe and analyse the formation of income from agricultural economic activity, it excludes units that produce solely a leisure activity (e.g. kitchen gardens and private livestock rearing). In contrast, units engaged in subsistence farming are included in the EAA (cf. 1.24).

7.14. The agricultural holding is the reference unit for statistical surveys relating to agriculture, whether those are national or regional. That has the advantage that evaluations of output in quantity terms may be based directly on the statistical systems for measuring areas, yields, herd sizes, etc. The choice of the agricultural holding also makes for better accounting consistency.

#### 4. Methods of compiling the REAA

7.15. The ESA (ESA 2010, 13.24 to 13.32) proposes two methods, applying to either industries or institutional sectors: the bottom-up and the top-down methods. The bottom-up method consists of collecting the data at the level of the units (local KAUs, institutional units) and then summing them to obtain the regional value for the different aggregates. The top-down method reconstructs the regional values by breaking down the national figure, using an indicator that reflects as closely as possible the regional distribution of the variable in question. Those two methods may also be combined in various ways, combinations which the ESA refers to as a mixture of bottom-up and top-down methods. However, collecting the same information more than once, thus creating redundancy in the data reporting, shall be avoided. Yet priority is given to the bottom-up method, although it is realised that in many cases a mixture of bottom-up and top-down methods is actually used. Details of the specific method and sources shall be set out in full transparency in the quality reports, indicating which regional data have been collected directly and which data are based on national data with regional breakdowns based on assumptions.



5. Concepts of residence and territory

7.16. Economic transactions of both enterprises and households may cross regional boundaries. Enterprises may also operate in more than one region, either at permanent sites or on a temporary basis, e.g. big farms may undertake work in different regions. Therefore, a clear principle is needed to help Member States to consistently allocate that interregional activity to a region.

7.17. The regional accounts of the industries are based on the criterion of residence of the production unit. Each industry at a regional level refers to the group of local KAUs of the same or similar principal economic activity, which have their centre of economic interest in that regional territory. More often than not, that centre of interest is associated with a specific long-term location in the region, like the institutional units to which the local KAUs belong.

- 7.18. However, the regional accounts have a number of distinct features. For certain activities, it is not always easy to define the region as a specific area. The relationship between the location of the head office and the physical location of the agricultural holding can create a problem, as factors of agricultural production may be managed by a head office in another region. For the REAA, it is important to split the two entities, and for that reason an agricultural holding must be assigned to the region where its factors of production are situated and not to the region where its headquarters are located. One head office may therefore give rise to several units within the meaning of the REAA, i.e. to as many units as there are regions of residence for local KAUs that are away from the region of the head office.
- 7.19. An alternative concept, which is generally not applied in the national and regional accounts, would be strictly territorial. That concept implies that activities are allocated to the territory where they actually take place, regardless of the residence of the units involved in the activity.
- 7.20. Though the residential approach takes precedence for the regional allocation of transactions of resident units, ESA 2010 provides for some limited scope for the application of the territorial approach (ESA 2010, 13.21). That occurs where notional units are created for land and buildings in the region or country in which the land or buildings are located.

7.21. In the hypothetical case, where units resident in a region only have activities within their regional territory, the residence concept coincides with the territory concept. That is also the case for the regional allocation based on notional units created for land and buildings and for unincorporated enterprises in other countries or in regions that are different from the region of residence of the owner.

6. Agricultural industry and characteristic units

7.22. The industry consists of all the local KAUs, which carry out an identical or similar economic activity (cf. 1.59). The agricultural industry, as described in the EAA, corresponds, in principle, to Division 01 in NACE Revision 2, with differences shown in 1.62 to 1.66. The scope of the REAA is defined on the basis of the list of characteristic activities drawn up for the EAA. There are some differences between the agricultural industry in the EAA, and thus in the REAA, and the industry established for the central framework of the national accounts (cf. 1.93).

## B. TRANSACTIONS IN PRODUCTS

7.23. Valuing agricultural output poses a number of specific problems. The most important relate to seasonal products, livestock production and the timing of the entries in the accounts. The EAA methodology puts forward precise rules governing how the effects of the storage of seasonal products shall be taken into account, how the output of livestock shall be measured and how products on which work is in progress must be recorded. Those principles shall be complied with when the REAA are compiled. However, that does not rule out certain adaptations at regional level, for example for livestock production. It should be stressed that the total of the regional valuation must be identical with the EAA valuations.

## 1. Output

### (a) Measurement of output

7.24. In the REAA, output of a region represents all products within the scope of EAA produced over the accounting period in that region by all the units of the agricultural industry, whether they are intended for marketing outside the industry, for sale to other agricultural holdings or, in certain cases, for use by the same agricultural holding. Consequently:

- (a) any agricultural product leaving an agricultural holding in the region shall be recorded as part of the output of the region, irrespective of its destination or the unit buying it;
- (b) certain agricultural products used as intermediate consumption by the same agricultural holding shall be included in the output of the region (cf. 2.056).

7.25. The production process of livestock generally takes several years. When livestock is valued, a distinction must be made between animals classified as fixed assets (breeding and draught animals, dairy cows, etc.) and those classified as stocks (animals intended mainly for meat). Thus, in order to avoid double counting, transactions involving the movement of animals between agricultural holdings (which are taken to be positive sales for the agricultural holdings selling the livestock and negative sales for the purchasing agricultural holdings), are dealt with as set out below:

- (a) transactions between agricultural holdings in the same region involving animals classified as fixed assets cancel each other out, apart from the transfer of ownership costs<sup>\*\*</sup>; they are not entered as the agricultural holdings' sales and are therefore not included in the output of the region in question;
- (b) animals classified as stock and which are the subject of a transaction between regions are treated as positive sales (along with exports) for the region of origin and animals bought from other regions as negative sales (along with imports)<sup>\*\*\*</sup>;

(c) when ownership transfer costs (transport, trade margins, etc.) relate to trade in animals classified as stock, they are deducted from output; that happens automatically when purchases from agricultural holdings in other regions are involved, since the costs are part of negative sales, whereas an adjustment must be made in sales, and thus in output, for trade in animals between agricultural holdings in the same region.

(b) Valuation of output

7.26. Output shall be valued at basic prices (cf. 2.082), i.e. including subsidies on products, less taxes on products. That method of calculation means that taxes and subsidies on products need to be broken down by region.

2. Intermediate consumption

(a) Definition

7.27. Intermediate consumption consists of the goods (other than fixed assets) and market services consumed during the production process to produce other goods (cf. 2.097 to 2.109).

7.28. When the REAA are compiled, intermediate consumption includes:

- (a) agricultural products purchased for consumption during the production process from other agricultural holdings (whether in the same region or in another region);
- (b) certain products used as intra-unit consumption and entered as output (cf. 2.054 to 2.058 and 7.24).

7.29. The particular case of FISIM is treated in regional accounts in the same way as in national accounts. If the estimation of stocks of loans and deposits is available by region, the bottom-up method can be used. However, usually estimates of stocks of loans and deposits are not available by region. Where that is the case, the allocation of FISIM to the user industry is made with a second-best method: regional gross output or gross value added by industry are used as distribution indicators (ESA 2010, 13.40).

(b) Valuation of intermediate consumption

7.30. All products and services used for intermediate consumption shall be valued at the purchaser price (excluding deductible VAT) (cf. 2.110 to 2.114).



3. Gross capital formation

7.31. Gross capital formation for agriculture is subdivided into:

- (a) GFCF;
- (b) changes in inventories.

(a) GFCF

7.32. There is fixed capital formation in agriculture whenever a holder acquires or produces fixed assets which are intended to be used for a period of more than one year as a means of production in the agricultural production process. The allocation criterion for the recording of GFCF refers to the user industries and not to the industry to which the legal owner belongs.

7.33. Fixed assets owned by a multiregional unit are allocated to the local KAUs where they are used. Fixed assets used under an operating lease are recorded in the region of the owner of the assets, and those used under a financial lease are recorded in the region of the user (ESA 2010, 13.33).

- 7.34. New assets being included in fixed capital are entered gross, i.e. without deducting the consumption of fixed capital. In addition, the consumption of fixed capital is generally calculated on those assets. Net capital formation is obtained by deducting the consumption of fixed assets from gross capital formation.
- 7.35. Production units can sell existing assets to each other, e.g. second-hand machinery. When assets move between industries and regions, the total price paid shall be included in the GFCF in one industry or region and the price received shall be deducted from GFCF in the other industry or region. Transaction costs of ownership of assets, such as legal fees on sales of land and existing buildings, are counted as additional GFCF by the acquirer, even if some of the costs are paid by the seller.

7.36. The GFCF for livestock of a region must be compiled in accordance with ESA 2010 (3.124 to 3.138) and 2.149 to 2.161 of this Annex. The GFCF for livestock is equivalent to the difference between livestock acquisitions over the year (natural growth and purchases outside the region including imports), including those resulting from own-account production, and livestock disposals (for slaughter, sales to other regions, including exports, or any other final use). When all the regions are aggregated, it is important to make sure that interregional flows cancel each other out (excluding ownership transfer costs) so that the sum of all the regional GFCFs is the same as the GFCF of the national agricultural accounts. When the bottom-up method is used, the following applies: sales of animals to agricultural holdings in other regions constitute negative GFCF whereas purchases from other regions are positive GFCF. For the calculation of GFCF for livestock of a region, the recommended indirect method may be used (cf. 2.156).

(b) Changes in inventories

7.37. Inventories comprise all the assets which are not part of fixed capital and which, at a given moment, are held temporarily by production units. A distinction is made between two types of inventories: input inventories and output inventories (cf. 2.171).

7.38. For animals classified as inventories, the trade to be taken into account in the calculation of changes in inventories includes sales to, and purchases from, other regions as well as imports and exports.

## C. DISTRIBUTIVE TRANSACTIONS AND OTHER FLOWS

7.39. The practical difficulties of obtaining reliable regional information on distributive transactions in certain cases, in particular when units carry out activities in more than one region, or when the region is not always a clearly defined area in which certain activities are carried out, explain why the ESA covers the regional accounts of the agricultural industry only with respect to a few aggregates: value added, subsidies, taxes, compensation of employees, rents and other income, interest and GFCF.

### 1. General rules

7.40. The distributive transactions are recorded on an accrual basis, i.e. at the time an economic value, amount due or claim is created, transformed or cancelled or ceases to exist, and not when payment is actually made. That recording principle (based on rights and obligations) is applied to all flows, irrespective of whether they are monetary flows, or whether they occur between units or within a single unit.

7.41. However, when the date on which the claim (debt) is acquired cannot be determined precisely, the payment date or another acceptable approximation of the accrual basis may be used (cf. 3.007).

2. Value added

(a) General rules

7.42. Value added is the result of the production activity of an economy or of one of its industries during a given period, and it is the balancing item of the production account. It is the difference between the value of output and the value of intermediate consumption. It is a key item in measuring the productivity of an economy or industry (cf. 3.013) or a region or industry within a region.

(b) Valuation of value added

7.43. Value added may be entered gross (gross value added at basic prices) or net (net value added at basic prices), i.e. before or after the deduction of the consumption of fixed capital. In line with the method for valuing output (basic price) and intermediate consumption (purchaser prices), value added is measured at basic prices (cf. 3.013).

7.44. The use of basic prices means that the taxes on products and subsidies on products must be assigned to specific goods and services, which then have to be allocated among the regions.

7.45. By deducting other taxes on production from the value added at basic prices, and adding other subsidies on production, the value added at factor cost is obtained. Net value added at factor cost constitutes the income of the factors of production (cf. 3.014).

### 3. Consumption of fixed capital

7.46. In the REAA, goods and services which make up the agricultural holding's fixed capital (such as plantations yielding repeat products, machinery and buildings, major improvements to land, software, costs of ownership transfer of non-produced assets) suffer wear and tear and obsolescence as means of production in the production process. Such wear and tear and obsolescence are measured as the consumption of fixed capital. Similar to the EAA, the consumption of fixed capital shall not be calculated for productive animals.

### 4. Subsidies

7.47. The REAA apply the same rules as the EAA: flows that are classified as operating subsidies in the EAA are classified in the same way in the REAA, a similar treatment applying for flows in the form of capital transfers.

5. Taxes

7.48. The REAA apply the same rules as the EAA: the different kind of taxes are classified in the same way in REAA as they are classified in EAA.

6. Compensation of employees

7.49. For producers, compensation of employees is allocated to the local KAUs where the people are employed. Where those data are not available, compensation of employees is allocated as a second best method, based on the hours worked. If neither compensation of employees nor hours worked are available, the number of employees by local KAU is used (cf. ESA 2010, 13.42).

7. Net operating surplus

7.50. Net operating surplus is obtained from net value added at basic prices by deducting the compensation of employees and other taxes on production and by adding other subsidies on production.

8. Interest, rents

7.51. The REAA apply the same rules as the EAA: flows that are classified as interest, rents in the EAA are classified in the same way in the REAA.

9. Agricultural entrepreneurial income: general calculation rules

7.52. Directly payable property income arising from agricultural activities and non-agricultural secondary activities, i.e. interest paid on loans taken out in connection with those activities, including for the purchase of agricultural land, and rents paid to landowners, is deducted from operating surplus (cf. 3.070 to 3.087).

D. A BRIEF LOOK AT IMPLEMENTATION

1. Introduction

7.53. This section aims to highlight some aspects of the methodology, in particular the choice of agricultural holding and the measure of output.



7.54. The agricultural holding is the reference unit for statistical surveys on agriculture, at both national and sub-national level. That is a major advantage for the REAA because it means that the valuation of output quantities can be based directly on statistical systems for measuring land areas, yields, herd sizes etc. Choosing the agricultural holding also has the advantage of enabling accounts to be more consistent. Output and costs relate, in fact, to identical sets of units, even if the extrapolation methods vary from one source to another. Lastly, choosing the agricultural holding, together with the concepts of characteristic activities and units, avoids having to make adjustments that might be contentious, as could be the case for kitchen gardens and private non-holder livestock rearing. That convention makes it easier to make comparisons between countries. Indeed, the link with statistical data in physical quantities, which are crucial for agriculture and guarantee that measurements of accounting entries will be consistent because adjustments or "extra-statistical" corrections are thus restricted, obviously simplifies and improves the calculations. Those aspects are also consistent with the aim of giving priority to the bottom-up approach in the REAA.

## 2. Defining regional agriculture

7.55. For each region, the agricultural industry consists of all the agricultural holdings whose factors of production are located in the region. That principle, which is consistent with the concept of the residence of production units, may pose a few problems: agricultural statistics usually define the location of agricultural holdings according to their headquarters and not directly according to the location of the factors of production. Those two locations are not always the same and that phenomenon is likely to be more frequent as agricultural holdings get larger. When the REAA are compiled, therefore, some agricultural holdings shall be reclassified between regions and even, in some cases, split up. That is likely to be difficult in practice, in which case it may be preferable to keep the same location for the agricultural holdings as in the statistical surveys. That proposal, however, depends on two conditions: firstly, the method of defining the location must be identical for all the regions in the country and secondly, the accounting entries must all be valued from sources that use the same rules for defining the location of the agricultural holdings.

### 3. Measuring agricultural output

7.56. Agricultural output includes certain crop products that are used again by the same agricultural holding in the form of intermediate consumption; that concerns mainly products for animal feedingstuffs. For arable crops in particular, regional output may often be determined on the basis of the quantities harvested in each region, those then being given a value via prices. In that case, all output is valued, whether it is intended for marketing outside the industry, sale to other agricultural holdings or use by the same agricultural holding. The output of each region is thus obtained directly, in line with the concept adopted in the EAA and the REAA. The prices by which output forming intra-unit consumption is valued may also be based on regional data, corresponding to the prices at which output is marketed. However, the lack of regional price data poses a general problem when it comes to valuing output, both (regional) output which is marketed and output which forms intra-unit consumption. Thus the REAA valuation of products forming intra-unit consumption raises the same difficulties as the valuation of products that are marketed. Obviously, it is a different matter when the quantities cannot be valued at regional level. In that case, a top-down method based on national-level valuations is generally the only one that can be used<sup>\*\*\*\*</sup>.

7.57. As regards animals, whether they are classified as inventories or fixed capital, the following elements shall be taken into account:

- valuations at regional level of changes in inventories and in GFCF relating to animals, those two flows being components of the indirect method of calculating output;
- valuations of trade in animals between regions, that trade being a component of the indirect method of calculating output;
- the breakdown between regions of the import and export flows of animals;
- the appropriate treatment of ownership transfer costs;
- the method of adjusting the REAA against the EAA.

7.58. In certain cases, the indirect method of calculating animal output can be too difficult at regional level. In such cases, it is better to calculate output on the basis of a model using physical data and then adjust the values to those in the EAA.

#### 4. Inseparable non-agricultural secondary activities

7.59. There are various ways of incorporating inseparable non-agricultural secondary activities into the REAA, depending on the type of activity. Some of those secondary activities are highly concentrated at regional level, for example agricultural product processing. In that case, output valuations of both quantities and prices can rely on local statistical data. For that output, the values in the EAA are de facto the same as those in the REAA. Other cases, however, may be more difficult. For example, there may be no regional source for some activities, especially if they are not concentrated in particular regions from the outset. For other activities, regional data are provided by statistical surveys or micro-economic accounts information (for example the farm accountancy data network ('FADN')) but there is no guarantee that those are regionally representative. Furthermore, data may be old with no sources available for reliable updating. Lastly, sometimes qualitative indicators are not available at regional level. In all those cases, the values of the EAA are the starting point for the REAA and the top-down method must often be used.

## 5. Intermediate consumption

7.60. Intermediate consumption in the REAA includes agricultural products used by agricultural holdings, whether those are directly traded between holders in the same region or different regions or change hands via intermediaries who may or may not become the owners of the products before they are resold.

Moreover, some agricultural products of intra-unit consumption are also entered as intermediate consumption, essentially certain crops used as animal feed. Purchases of animals, even of animals that are imported, shall not be entered as intermediate consumption.

7.61. The first method of calculating the intermediate consumption of agricultural products at the regional level is to calculate the difference between the output of the REAA and that part of the output which is intended to leave the industry, on a product-by-product basis\*\*\*\*. However, it is not a totally accurate representation of the intermediate consumption of agricultural products in each region, because while agricultural products intended for intermediate consumption by agricultural holdings in other regions are included, agricultural products which come from agricultural holdings in other regions are not included. Intermediate consumption must, therefore, be adjusted in line with the values in the EAA.

7.62. Another calculation method is also possible, using the FADN as a source of information. That source enables the intermediate consumption of agricultural products to be valued, irrespective of whether they come from sales by other agricultural holdings or from other sources such as imports. However, the FADN does not cover in exactly the same way the products that are used as intermediate consumption by the same agricultural holding, and thus corrections are necessary. Similarly, therefore, intermediate consumption must be adjusted in line with the values in the EAA.

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- \* Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154 21.6.2003, p. 1).
  - \*\* As long as the corresponding sales and purchases fall in the same accounting period.
  - \*\*\* The purchase of an animal is never to be recorded as intermediate consumption (basically, it is an acquisition of work in progress, cf. 2.067) and the calculation of animal output can only be calculated indirectly, on the basis of the sales, the GFCF and the stock changes.
  - \*\*\*\* According to the method used, the intra-unit consumption shall be adjusted to the EAA values.
  - \*\*\*\*\* Imported agricultural products (except animals) are excluded.'
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## ANNEX II

### 'ANNEX II

#### TRANSMISSION PROGRAMME OF DATA

For each of the output items (items 01 to 18, including sub-items), the value at basic prices as well as its components (value at producer prices, subsidies on products and taxes on products) shall be transmitted.

The data for production account and for gross fixed capital formation ('GFCF') shall be transmitted at both current prices and the prices of the previous year.

All values shall be expressed in millions of units of the national currency. Labour input shall be expressed in 1 000 annual work units.

The data for regional economic accounts for agriculture ('REAA') shall be provided at NUTS 2 level and transmitted at current prices only.



1. Production account

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
01	CEREALS (including seeds)	X	X	X	X
01.1	Wheat and spelt	X	X	X	X
01.1/1	Soft wheat and spelt	—	—	X	X
01.1/2	Durum wheat	—	—	X	X
01.2	Rye and meslin	X	X	X	X
01.3	Barley	X	X	X	X
01.4	Oats and summer cereal mixtures	X	X	X	X
01.5	Grain maize	X	X	X	X
01.6	Rice	X	X	X	X
01.7	Other cereals	X	X	X	X
02	INDUSTRIAL CROPS	X	X	X	X
02.1	Oil seeds and oleaginous fruits (including seeds)	X	X	X	X
02.1/1	Rape and turnip rape seed	—	—	X	X
02.1/2	Sunflower	—	—	X	X

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
02.1/3	Soya	—	—	X	X
02.1/4	Other oleaginous products	—	—	X	X
02.2	Protein crops (including seeds)	X	X	X	X
02.3	Raw tobacco	X	X	X	X
02.4	Sugar beet	X	X	X	X
02.5	Other industrial crops	X	X	X	X
02.5/1	Fibre plants	—	—	X	—
02.5/2	Hops	—	—	X	—
02.5/3	Other industrial crops: others	—	—	X	—
03	<b>FORAGE PLANTS</b>	X	X	X	X
03.1	Fodder maize	—	—	X	X
03.2	Fodder root crops (including forage beet)	—	—	X	X
03.3	Other forage plants	—	—	X	X

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
04	VEGETABLES AND HORTICULTURAL PRODUCTS	X	X	X	X
04.1	Fresh vegetables	X	X	X	X
04.1/1	Cauliflower	—	—	X	—
04.1/2	Tomatoes	—	—	X	—
04.1/3	Other fresh vegetables	—	—	X	—
04.2	Plants and flowers	X	X	X	X
04.2/1	Nursery plants	—	—	X	—
04.2/2	Ornamental plants and flowers (including Christmas trees)	—	—	X	—
04.2/3	Plantations	—	—	X	—
05	POTATOES (including seeds)	X	X	X	X
06	FRUITS	X	X	X	X
06.1	Fresh fruit	X	X	X	X
06.1/1	Dessert apples	—	—	X	—
06.1/2	Dessert pears	—	—	X	—
06.1/3	Peaches	—	—	X	—

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
06.1/4	Other fresh fruit	—	—	X	—
06.2	Citrus fruits	X	X	X	X
06.2/1	Sweet oranges	—	—	X	—
06.2/2	Mandarins	—	—	X	—
06.2/3	Lemons	—	—	X	—
06.2/4	Other citrus fruits	—	—	X	—
06.3	Tropical fruit	X	X	X	X
06.4	Grapes	X	X	X	X
06.4/1	Dessert grapes	—	—	X	—
06.4/2	Other grapes	—	—	X	—
06.5	Olives	X	X	X	X
06.5/1	Table olives	—	—	X	—
06.5/2	Other olives	—	—	X	—
07	WINE	X	X	X	X
07.1	Table wine	—	—	X	—
07.2	Quality wine	—	—	X	—

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
08	OLIVE OIL	X	X	X	X
09	OTHER CROP PRODUCTS	X	X	X	X
09.1	Vegetable materials used primarily for plaiting	—	—	X	—
09.2	Seeds	—	—	X	—
09.3	Other crop products: others	—	—	X	—
10	CROP OUTPUT (01 TO 09)	X	X	X	X
11	ANIMALS	X	X	X	X
11.1	Cattle	X	X	X	X
11.2	Pigs	X	X	X	X
11.3	Equines	X	X	X	X
11.4	Sheep and goats	X	X	X	X
11.5	Poultry	X	X	X	X
11.6	Other animals	X	X	X	X
12	ANIMAL PRODUCTS	X	X	X	X
12.1	Milk	X	X	X	X
12.2	Eggs	X	X	X	X
12.3	Other animal products	X	X	X	X

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
12.3/1	Raw wool	—	—	X	—
12.3/2	Silkworm cocoons	—	—	X	—
12.3/3	Other animal products: others	—	—	X	—
13	ANIMAL OUTPUT (11+12)	X	X	X	X
14	AGRICULTURAL GOODS OUTPUT (10+13)	X	X	X	X
15	AGRICULTURAL SERVICES OUTPUT	X	X	X	X
15.1	Agricultural services	—	—	X	—
15.2	Renting of milk quota	—	—	X	—
16	AGRICULTURAL OUTPUT (14+15)	X	X	X	X
17	NON-AGRICULTURAL SECONDARY ACTIVITIES (INSEPARABLE)	X	X	X	X
17.1	Processing of agricultural products	X	X	X	X
17.2	Other inseparable secondary activities (goods and services)	X	X	X	X

Item	List of variables	Transmission concerning reference year n			
		a	b	c	d
		November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
18	OUTPUT OF THE AGRICULTURAL INDUSTRY (16+17)	X	X	X	X
19	TOTAL INTERMEDIATE CONSUMPTION	X	X	X	X
19.01	Seeds and planting inventory	X	X	X	X
19.02	Energy; lubricants	X	X	X	X
19.02/1	- electricity	—	—	X	—
19.02/2	- gas	—	—	X	—
19.02/3	- other fuels and propellants	—	—	X	—
19.02/4	- other	—	—	X	—
19.03	Fertilisers and soil improvers	X	X	X	X
19.04	Plant protection products and pesticides	X	X	X	X
19.05	Veterinary expenses	X	X	X	X
19.06	Animal feedingstuffs	X	X	X	X
19.06/1	- feedingstuffs supplied by other agricultural holdings	X	X	X	X

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
19.06/2	- feedingstuffs purchased from outside the agricultural industry	X	X	X	X
19.06/3	- feedingstuffs produced and consumed by the same agricultural holding	X	X	X	X
19.07	Maintenance of materials	X	X	X	X
19.08	Maintenance of buildings	X	X	X	X
19.09	Agricultural services	X	X	X	X
19.10	Financial intermediation services indirectly measured (FISIM)	X	X	X	X
19.11	Other goods and services	X	X	X	X



		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
20	GROSS VALUE ADDED AT BASIC PRICES (18-19)	X	X	X	X
21	FIXED CAPITAL CONSUMPTION	X	X	X	X
21.1	Equipment	—	—	X	—
21.2	Buildings	—	—	X	—
21.3	Plantations	—	—	X	—
21.4	Others	—	—	X	—
22	NET VALUE ADDED AT BASIC PRICES (20-21)	X	X	X	X

2. Generation of income account

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
23	COMPENSATION OF EMPLOYEES	X	X	X	X
24	OTHER TAXES ON PRODUCTION	X	X	X	X
25	OTHER SUBSIDIES ON PRODUCTION	X	X	X	X
26	FACTOR INCOME (22-24+25)	X	X	X	X
27	OPERATING SURPLUS / MIXED INCOME (22-23-24+25)	X	X	X	X

### 3. Entrepreneurial income account

		Transmission concerning reference year n			
		a	b	c	d
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
28	RENTS AND OTHER REAL ESTATE RENTAL CHARGES TO BE PAID	X	X	X	X
29	INTEREST PAYABLE	X	X	X	X
30	INTEREST RECEIVABLE	X	X	X	X
31	ENTREPRENEURIAL INCOME (27- 28-29+30)	X	X	X	X

4. Elements of the capital account

Item	List of variables	Transmission concerning reference year n			
		a	b	c	d
		November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)	September year n+2 (REAA data)
32	GFCF IN AGRICULTURAL PRODUCTS	—	—	X	X
32.1	GFCF in plantations	—	—	X	—
32.2	GFCF in animals	—	—	X	—
33	GFCF IN NON-AGRICULTURAL PRODUCTS	—	—	X	X
33.1	GFCF in materials	—	—	X	—
33.2	GFCF in buildings	—	—	X	—
33.3	Other GFCF	—	—	X	—
34	GFCF (EXCLUDING DEDUCTIBLE VAT) (32+33)	—	—	X	X
35	NET FIXED CAPITAL FORMATION (EXCLUDING DEDUCTIBLE VAT) (34-21)	—	—	X	X
36	CHANGES IN INVENTORIES	—	—	X	X
37	CAPITAL TRANSFERS	—	—	X	X
37.1	Investment grants	—	—	X	—
37.2	Other capital transfers	—	—	X	—

5. Agricultural labour input

		Transmission concerning reference year n		
		a	b	c
Item	List of variables	November year n (EAA estimates)	March year n+1 (EAA estimates)	September year n+1 (EAA data)
38	TOTAL AGRICULTURAL LABOUR INPUT	X	X	X
38.1	Non-salaried agricultural labour input	X	X	X
38.2	Salaried agricultural labour input	X	X	X