Council of the
European Union

Brussels, 2 July 2024
(OR. en)

11809/24
ADD 1

Interinstitutional File:
2024/0144 (COD)

CODIF 7
CODEC 1631
AGRI 551

PROPOSAL

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	20 June 2024
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	COM(2024) 255 final
Subject:	ANNEXES to the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the economic accounts for agriculture in the Union (codification)

Delegations will find attached document COM(2024) 255 final – Annexes 1 to 4.

Encl.: COM(2024) 255 final – Annexes 1 to 4

EUROPEAN
COMMISSION

Brussels, 20.6.2024
COM(2024) 255 final

ANNEXES 1 to 4

ANNEXES

to the

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the economic accounts for agriculture in the Union (codification)

↓ 138/2004 (adapted)

ANNEX I

ECONOMIC ACCOUNTS FOR AGRICULTURE

(EAA)

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↓ 2022/590 Art. 1.4 and Annex I.1

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↓ 2019/280 Art. 1 and Annex I.3

FOREWORD

The revision of the European system of accounts (ESA 2010)[1] has led to some revisions of the basic methodology used for the EAA, to guarantee consistency with the ESA to allow harmonisation of the EAA both between Member States and with the central framework of the national accounts and to ensure that the changes to be made were feasible. This manual has been drawn up with these considerations in mind as, in addition to the concepts, principles and basic rules for compiling the EAA, it also refers to any adaptations to specific characteristics in the field of agriculture.

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(b)
→2 2019/280 Art. 1 and Annex I.4(a)
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I. GENERAL FEATURES OF THE ACCOUNTS

A. INTRODUCTION

1.01. A system of integrated economic accounts should provide an overview of economic activities which is systematic, comparable and as complete as possible, to serve as a basis for analyses, forecasts and political measures. The vast number and variety of economic transactions and units covered by the system therefore have to be classified according to general criteria and set out clearly and simply in a coherent system of accounts and tables.

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[1] European System of National and Regional Accounts — ESA 2010, Luxembourg 2013.

1.02. The European system of integrated economic accounts, which is derived from the United Nations revised system of national accounts (➔1 2008 SNA ←) ➔2 [2] ←, was created in response to the specific needs of the European Union. It lays down concepts, definitions, accounting rules and uniform classifications to be used by the Member States.

1.03. The economy of a country is the sum of the activities of a very large number of units engaged in many different types of transaction with a view to producing, financing, insuring, distributing and consuming. Units and groups of units considered in the context of a system of national accounts have to be defined in terms of the economic models under examination. ➔3 The ESA 2010 is characterised by the use of two types of units and two corresponding ways of subdividing the national economy. ←

1.04. In order to analyse flows involving income, capital, financial transactions and assets, it is essential to select units which depict the interaction between economic operators (institutional units). In order to analyse the production process, it is crucial to select units which illustrate technico-economic relationships (⌦ that is to say, the ⌫ kind-of-activity units at local level and units of homogeneous production).

1.05. Thus, the economy may be broken down in two different ways:

(i) into institutional sectors or subsectors, which represent groups of institutional units;

(ii) into industries, which comprise groups of kind-of-activity units at local level (industry) or units of homogeneous production (homogeneous branch).

1.06. The main purpose of the EAA is to analyse the production process and primary income generated by it. The accounts are therefore based on the industry concept.

1.07. The EAA are a satellite account providing complementary information and concepts adapted to the particular nature of the agricultural industry. Although their structure very closely matches that of the national accounts, their compilation requires the formulation of appropriate rules and methods.

1.08. A distinction needs to be made between the income generated by agricultural production and the income of agricultural households, the latter including, apart from income from agricultural activity, income from other sources (from property, social transfers, etc.) that agricultural households may have. ➔4 These two types of income (income generated by agricultural production and the income of agricultural households) are measured for two distinct purposes, which require two distinct methods of breaking down the economy: the first, for the EAA, is based on production units, which are defined by reference to an economic activity; the second is based on households (⌦ that is to say, ⌫ institutional units) whose main source of income is independent agricultural activity. ←

[2] System of National Accounts, 2008. Joint publication by the United Nations, European Commission, International Monetary Fund, OECD and World Bank.

B. THE BASIC UNIT AND THE AGRICULTURAL INDUSTRY

1. Basic unit

↓ 2019/280 Art. 1 and Annex I.4(d) (adapted)

1.09. In order to analyse flows occurring in the process of production and in the use of goods and services, it is necessary to choose units which emphasise relationships of a technico-economic kind. This requirement means that as a rule institutional units must be partitioned into smaller and more homogeneous units with regard to the kind of production. Local kind-of-activity units (local KAUs) are intended to meet this requirement as an operational approach (ESA 2010, point 2.147) ⌦ [3] ⌫.

↓ 2019/280 Art. 1 and Annex I.4(e) (adapted)

1.10. The local kind-of-activity unit (local KAU) is the part of a KAU which corresponds to a local unit. The local KAU is called an establishment in the 2008 SNA and ISIC Rev. 4. A KAU groups all the parts of an institutional unit in its capacity as a producer contributing to the performance of an activity at class level (four digits) of the NACE Rev. 2 (the reference classification for economic activities, ⌦ see point ⌫ 1.55) and corresponds to one or more operational subdivisions of the institutional unit. The institutional unit's information system must be capable of indicating or calculating for each local KAU at least the value of production, intermediate consumption, compensation of employees, the operating surplus and employment and gross fixed capital formation (ESA 2010, point 2.148). The local unit is an institutional unit, or part of an institutional unit, producing goods or services situated in a geographically identified place.

↓ 2019/280 Art. 1 and Annex I.4(f) (adapted)

1.11. Although a local KAU may correspond to an institutional unit or part of an institutional unit in its capacity as a producer, it can never belong to two distinct institutional units. Since, in practice, most institutional units producing goods and services are involved in a number of different activities at once (a principal activity and one or more secondary activities), they can be broken down into the same number of local KAUs, if necessary information is available. Ancillary activities (purchases, sales, marketing, accounting, transport, warehousing, maintenance, etc.; ⌦ see point ⌫ 1.27), however, cannot lead to the creation of a local KAU, unless

[3] It should be pointed out that, although the ESA ⌦ 2010 ⌫ gives preeminence to local KAUs, the unit best suited to analyses of the production process is the unit of homogeneous production (UHP). This unit is used to analyse inputs and outputs, since it corresponds exactly to a type of activity. Institutional units are thus divided into as many UHPs as there are activities (other than ancillary). By grouping these UHPs it is possible to break down the economy into 'pure' (homogeneous) branches. A UHP cannot, as a rule, be directly observed. Therefore, the accounts of homogeneous branches cannot be compiled on the basis of groups of UHPs. The ESA describes a method for compiling these accounts. It involves attributing secondary production and the corresponding costs of activity branches to the appropriate homogeneous branches (ESA 2010, 2.153 to 2.156, 9.52 to 9.63).

they are carried out in a separate location, located in a region other than the local KAU they serve (ESA 2010, point 3.13).

↓ 2019/280 Art. 1 and Annex I.4(g)

1.12. Basically, as many local KAUs should be recorded as there are secondary activities, but it can happen that statistical (accounting) information does not make it possible to separate a local KAU's secondary activities or parts of those activities from its principal activities. If an institutional unit producing goods or services contains a principal activity and also one or several secondary activities, it is subdivided into the same number of KAUs, and the secondary activities are classified under different headings from the principal activity. The ancillary activities are not separated from the principal or secondary activities. But KAUs falling within a particular heading of the classification system can produce products outside the homogeneous group on account of secondary activities connected with them which cannot be separately identified from available accounting documents. Thus, a KAU may carry out one or several secondary activities. (ESA 2010, point 2.149).

↓ 2019/280 Art. 1 and Annex I.4(h)

1.13. An activity can be said to take place when resources such as equipment, labour, manufacturing techniques, information networks or products are combined, leading to the creation of specific goods or services. An activity is characterised by an input of products (goods and services), a production process and an output of products. The principal activity of a local KAU is the activity where the value added of such activity exceeds that of any other activity carried out within the same unit. The classification of the principal activity is determined by reference to NACE rev. 2, first at the highest level of the classification and then at more detailed levels (ESA 2010, point 3.10).

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.4(i)

2. Agricultural industry

1.14. By grouping all local KAUs engaged in the same type of activity, it is possible to establish an industry. This makes it possible to break down the economy by industry. The classification of these industries depends on the principal activity of the units thus grouped together. →1 At the most detailed level of classification, as defined by ESA 2010, point 2.150, an industry includes all local KAUs in the same class (four digit level) of NACE Rev. 2 and therefore engaged in the same principal activity as that defined in NACE Rev. 2 ←.

1.15. Although the agricultural industry was formerly defined as a grouping of units of homogeneous agricultural production, the local KAU was chosen as the basic unit of description for the EAA so as: (i) to approach the EAA from the economic situation of agriculture, ⌦ that is to say, ⌫ to take the existence of certain inseparable non-agricultural secondary activities into full account when measuring the total

productive activity of agricultural units; and (ii) to remain consistent with the rest of the national accounts. This represents a shift from an analytical approach based on the concept of the unit of homogeneous production and homogeneous branch to a statistical approach based on the concept of the KAU at local level and industry.

1.16. Inseparable, non-agricultural secondary activities are activities whose costs cannot be observed separately from those of the agricultural activity. Examples are the processing of farm products on the farm, forestry, logging, tourism. The output of the agricultural industry thus results from two kinds of activity:

(i) agricultural activities (main or secondary) performed by agricultural units;

➔ 2019/280 Art. 1 and Annex I.4(j)

(ii) non-agricultural inseparable secondary activities of agricultural units.

➔ 138/2004 (adapted) ➔1 2019/280 Art. 1 and Annex I.4(k) ➔2 2019/280 Art. 1 and Annex I.4(l) ➔3 2019/280 Art. 1 and Annex I.4(m)

1.17. The agricultural holding, which is the unit currently used for statistical studies of agriculture (censuses, surveys of the structure of agricultural holdings), is the local KAU most appropriate to the agricultural industry (even though certain other units, such as wine or olive oil cooperatives, or units performing contract work, etc., have to be included in it). Nevertheless, it should be pointed out that the variety of agricultural activities that can be performed on agricultural holdings makes them a special type of local KAU. ➔1 The strict application of the ESA ⌦ 2010 ⌫ rule to units and their group should in fact result in a division of the agricultural holding into several separate local KAUs in cases where several activities of the NACE Rev. 2 four-digit class are performed on the same holding and the information required ⌦ in accordance with point ⌫ 1.10 is available. The adoption of the agricultural holding as the local KAU of the agricultural industry in the national accounts and EAA is based on a statistical approach. ➔

1.18. Thus, the accounts for the agricultural industry are essentially similar to the accounts of agricultural holdings (production and generation of income accounts). In order to avoid any ambiguity, however, it should be pointed out that the agricultural accounts are not accounts of enterprises whose principal activity is agricultural: firstly, they do not include all of these holdings' non-agricultural activities (those which can be separated from agricultural activities are excluded). Moreover, they include the agricultural activities of enterprises whose principal activity is not agricultural. Consequently, the adoption of the agricultural holding as the base unit for the EAA does not alter the fact that the agricultural accounts are agricultural industry accounts.

1.19. ➔2 Since, according to ESA 2010, an industry comprises a group of units which carry out as their principal activity the same or similar types of activity, the definition

of the agricultural industry in the EAA depends on the identification of the characteristic activities and units in that industry. ← The resultant selection of characteristic agricultural activities and units may lead to some differences between the EAA agricultural industry accounts and the national accounts (⌦ see point ⌫ 1.90).

1.20. →3 The agricultural industry is treated as a grouping of all KAUs at local level which perform the following economic activities, as principal or secondary activity (⌦ see points ⌫ 1.60 to 1.65 for the precise definition of the agricultural industry): ←

- crop growing; market gardening; horticulture (including the production of wine and olive oil from grapes and olives grown by the same unit),
- farming of animals,
- crop production associated with animal husbandry,
- agricultural contract work,
- hunting, trapping and game propagation, including related service activities.

1.21. In addition to agricultural holdings, the agricultural industry comprises units made up of groups of producers (⌦ for example, ⌫ cooperatives) which produce wine and olive oil and specialised units which provide machines, material and labour for the performance of contract work.

1.22. Specialised units which provide machines, equipment and personnel for the performance of contract work at the agricultural production stage (commercial enterprises engaged in contract work or agricultural holders providing services as contractors) are treated as part of the agricultural industry. Under a stricter interpretation, these units, which must be included in the agricultural industry, must perform work which: (a) is part of the agricultural production process, (b) is linked to the production of agricultural products, (c) is customarily performed by the agricultural holdings, and (d) is actually performed entirely by specialist units providing machines, material and labour.

↓ 212/2008 Art. 1 and Annex .3 (adapted)

1.23. If, however, the contract work is not performed entirely by specialised units (⌦ for example, ⌫ if holders hire machines but employ their own workers), this activity must be recorded in Division 77 of NACE Rev. 2 (Rental and leasing activities); in this case, ⌦ the ⌫ amounts paid by the holders to enterprises working under contract must be recorded as 'other goods and services' under 'intermediate consumption' (⌦ see point ⌫ 2.109).

↓ 2019/280 Art. 1 and Annex I.4(n)

1.24. Since the purpose of the EAA is to measure, describe and analyse the formation of income from agricultural economic activity (which, in the Member States, is almost exclusively a commercial activity), it was decided to exclude units for which the

agricultural activity represents solely a leisure[4] activity. In contrast, units engaged in subsistence farming are included in the EAA. It should be pointed out that agricultural output for own final consumption by agricultural holdings must be recorded in the EAA.

↓ 138/2004

3. Inseparable non-agricultural secondary activities

↓ 2019/280 Art. 1 and Annex I.4(o)

1.25. The use of the local KAU as the basic unit for the agricultural industry entails recording non-agricultural secondary activities where they cannot be isolated from the main agricultural activity.

↓ 2019/280 Art. 1 and Annex I.4(p)

1.26. Inseparable non-agricultural secondary activities of local agricultural KAUs are defined in the EAA as activities closely linked to agricultural production for which information on any of output, intermediate consumption, compensation of employees, labour input or GFCF cannot be separated from information on the main agricultural activity during the period of statistical observation.

↓ 138/2004

1.27. The main characteristics of these inseparable non-agricultural secondary activities are as follows:

– they must be intended for sale or barter (during the accounting period or later, after storage), own final use by the producer or as payment in kind (including compensation in kind paid to employees),

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↓ 2019/280 Art. 1 and Annex I.4(q) (adapted)

– they must not be ancillary activities. Ancillary activities are not isolated to form distinct entities or separated from the principal or secondary activities or entities they serve. Accordingly, ancillary activities must be integrated with the local KAU they serve, unless they are organised in separate units and located in another region. Ancillary activities remain in the same industry as the local KAU they serve. Ancillary activities are supplementary activities (⌦ for example, ⌫ sales, marketing, warehousing, transport for own account; see ESA 2010, points 3.12 and 3.13, and 2008 SNA, points 5.35 to 5.44) carried out by an enterprise in order to create the conditions for conducting the main or

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[4] These are small units producing for own consumption, not for selling, carrying out agricultural activities without depending economically on these activities.

secondary activities. Typically, the output of ancillary activities appears as input in the different types of productive activity,

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↓ 2022/590 Art. 1.4 and Annex I.2

– 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),

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↓ 138/2004 (adapted)

– they must be characteristic of agricultural holdings, ⌦ that is to say, ⌫ they must be of significant economic importance for a significant number of holdings,

– agricultural 'contract work' is not a non-agricultural activity since it is a characteristic activity (agricultural services) of the agricultural industry.

1.28. Only that part of a specific non-agricultural secondary activity which is inseparable must be included. As a consequence, a given non-agricultural activity will be included in the agricultural industry if it is impossible to separate it from the main agricultural activity of a local KAU, but will be excluded if it can be separated from the main agricultural activity, in which case the secondary activity gives rise to a non-agricultural local KAU. The selection criterion for inseparable non-agricultural secondary activities is not so much the nature of the product as the type of activity[5]. For example, agro-tourism services provided by a farm must only be included if they cannot be separated from its agricultural activities. This would probably not be the case when these activities become important. Thus, non-agricultural products accounted for in the ⌦ output ⌫ of the agricultural industry may vary geographically and over time.

[5] Note, however, that some secondary activities are always considered separable from agricultural activity, for example, renting out of buildings or dwellings.

↓ 2019/280 Art. 1 and Annex I.4(r) (adapted)

1.29. Two main types of inseparable non-agricultural secondary activity may be distinguished:

1. Activities which represent a continuation of agricultural activity and which use agricultural products. This type of activity can be found in most of the Member States. The processing of agricultural products is the typical activity of this group:

   Processing of agricultural products

   – milk into butter, cream, cheeses, yoghurts and other dairy products,

   – fruit and vegetables into fruit juices, tinned foods, alcoholic beverages and other products,

   – grapes, must and wine into alcoholic products (⌦ for example, ⌫ sparkling wine, such as Champagne, and spirits, such as Cognac),

   – plaiting of vegetable material/textiles/wool,

   – production of pâtés, foie gras and other processed meat products,

   – processing of other agricultural products,

   Grading and packaging of agricultural products, ⌦ for example, ⌫ eggs and potatoes

2. Activities involving the agricultural holding and its means of agricultural production (equipment, installations, buildings, workforce). These activities are basically the following:

   – agro-tourism — camping, catering, hotels, various kinds of accommodation, etc.,

   – farm shops — retail trade activities concerning products other than those from the holding. Direct sales of agricultural products, raw or processed, are recorded in the output of the products concerned,

   – sports and rural recreation — the use of land for activities such as golf, horse-riding, hunting, fishing, etc.,

   – services for third parties — ⌦ for example, ⌫ the renting and repair of agricultural machinery, irrigation projects, agricultural advisory services, product storage, maintenance of farm buildings, commercial services relating to agricultural products, transport of agricultural products, etc. These services are recorded as secondary activities, only if they are performed for a third party. When performed for own account, they are ancillary activities, which are not recorded in the accounts (⌦ see point ⌫ 1.27),

   – landscaping services — grass-mowing, hedge-trimming, snow-clearing, laying out, planting and maintenance of green areas and the like,

   – fish-farming,

– other activities involving the use of the land and the means of agricultural production. These other activities will include R & D, if not performed by separate local KAUs and if possible to be estimated.

↓ 138/2004 (adapted)

1.30. The list of non-agricultural secondary activities (⌦ see point ⌫ 1.29) is, ⌦ however, ⌫ given by way of illustration and does not apply in every country. On the contrary, each country has to compile its own list of inseparable non-agricultural secondary activities, depending on the characteristics of its agriculture. The list must be drawn up in collaboration with the national accounts departments so as to ensure that the EAA is compatible with the agricultural branch accounts and the accounts for these non-agricultural activities as compiled for national accounts purposes (⌦ that is to say, ⌫ to ensure that no activity is omitted or double-counted).

1.31. The agricultural secondary activities of non-agricultural units are negligible and are recorded as zero by convention. Agricultural production carried out by a non-agricultural unit is, in fact, considered to be always separable, in terms of accounting data, because of the specific features of the products and the means of agricultural production as well as the data sources and methods used for drawing up the resulting EAA (⌦ see ⌫ Section E of Chapter I and Sections B and C of Chapter II). In order to base the EAA on the industry concept, the output of all agricultural products, excluding those products arising from the secondary activities of non-agricultural local KAUs, has to be measured. As these by convention are deemed to be zero, all agricultural output is recorded (with the exception of the output of units for which the agricultural activity represents solely a leisure activity; ⌦ see point ⌫ 1.24).

1.32. Non-agricultural goods and services produced by agricultural holdings are not included in the EAA unless they are the result of inseparable secondary activities. For example, if units include several vertically integrated production processes (⌦ for example, ⌫ enterprises engaged in slaughtering, packing and vacuum-packing fowl, grading, washing and pre-packaging potatoes or other vegetables, sorting, preparing and selling seeds; cooperatives providing storage space and selling the products, etc.), the agricultural industry includes only the part of their activity which is related to agricultural production as defined in ⌦ points ⌫ 1.62 and 1.63, and to the inseparable non-agricultural secondary activities.

C. MEASUREMENT OF OUTPUT

↓ 2019/280 Art. 1 and Annex I.4(s) (adapted)

1.33. According to the ESA 2010, the output of the industry represents all of the products produced over the accounting period in question by all the units of the industry except for goods and services produced and consumed over the same accounting period by the same unit. The measurement of agricultural output is based on an adaptation of this ESA ⌦ 2010 ⌫ rule, with the inclusion in agricultural output of part of the output consumed by the agricultural units themselves (⌦ see points ⌫ 2.032 to 2.036). Thus in the EAA, agricultural output represents the sum of output by all units in the industry (excluding output for intermediate consumption by the same unit), plus output used as intermediate consumption by the same unit,

provided this output concerns two different basic activities (such as crop products intended for use as animal feedingstuffs) and it meets certain criteria (set out in ⌦ point ⌫ 2.055).

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)

1.34. The ESA ⌦ 2010 ⌫ rule has been adapted because of the special nature of the agricultural industry:

– the amount of agricultural output used in the same unit as intermediate consumption is greater in agriculture than in other economic sectors,

– the agricultural holding includes a great variety of agricultural activities which are closely linked to one another (one activity being a basis for or continuation of another activity, such as cereal and fodder production for animal feedingstuffs; close links in the use of production factors such as equipment and machinery). The varied content of the agricultural holding, without ⌦ calling ⌫ into question its characterisation as a local KAU, makes it a very special case as compared to local KAUs in other parts of the economy (⌦ see point ⌫ 1.17). The aim of the accounts in subdividing the economy into industries is, in part, to reflect the flows within the production process: creation, transformation, trade and transfer of economic value. The different activities carried out on an agricultural holding would not be fully taken into account by solely measuring the output leaving the holding.

1.35. This adaptation of the ESA ⌦ 2010 ⌫ rule calls for special treatment for certain products such as agricultural products intended for use as feedingstuffs on the holding, grapes used for wine production and olives used for olive oil production, and agricultural products intended for use as intermediate consumption for inseparable non-agricultural secondary activities.

1.36. Trade in live animals between agricultural holdings and imports of live animals are the subject of special treatment as they are considered work-in-progress (⌦ see ⌫ Chapter II).

D. SEQUENCE OF ACCOUNTS

1. Sequence of accounts as provided for in the →1 ESA 2010 ←

↓ 2019/280 Art. 1 and Annex I.4(t) (adapted)

1.37. The EAA are based on a sequence of interconnected accounts. In the ESA 2010, the full sequence of accounts includes current accounts, accumulation accounts and balance sheets (ESA 2010, points 1.113 ⌦ , 1.114 and ⌫ 1.115). These different accounts make it possible to record transactions and other flows linked to specific aspects of the economic cycle (for example, production) in an ordered framework. These transactions range from the generation of income through income accumulation in the form of assets, to its distribution and redistribution. The balancing items which are deducted from them are then used as aggregates for measuring economic performance.

↓ 2019/280 Art. 1 and Annex I.4(u)

1.38. The current accounts deal with the production and related generation, distribution and redistribution of income and its use in the form of final consumption; they make it possible to calculate 'savings', which is the essential component of accumulation. Accumulation accounts analyse the various components of changes in the assets and liabilities of units and make it possible to record changes in net worth (the difference between assets and liabilities). The balance sheets show the total assets and liabilities of the various units at the beginning and end of the accounting period, together with their net worth. The flows for each asset and liability item recorded in the accumulation accounts are seen again in the 'changes in balance sheets' account (ESA 2010, points 8.02 to 8.09 and Table 8.1).

↓ 2019/280 Art. 1 and Annex I.4(v)

1.39. The sequence of accounts referred to above applies to institutional units, sectors and subsectors, and the total economy. The ESA 2010 assumes that there is no point in compiling a full sequence of accounts for a local KAU and an industry because such units rarely have the capacity to retain goods or assets in their own name or to receive and distribute income.

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)

2. Sequence of accounts of the EAA

1.40. As the EAA are based on the industry concept, the sequence of accounts in accordance with the →1 ESA 2010 ← has to be limited to the first accounts of the current accounts:

– the production account, and

– the generation-of-income account

whose balancing items are value added and operating surplus respectively (⌦ see ⌫ Tables 1 and 2).

1.41. Nevertheless, it is thought that, given the specific features of agriculture, it should be possible to compile other accounts, at least in part, in so far as the relevant flows can be clearly attributed to them. The accounts in question (⌦ see ⌫ Tables 3 and 4) are the following:

– the entrepreneurial income account (one of the current accounts) and

– the capital account (one of the accumulation accounts).

1.42. Consideration is being given to extending this sequence of accounts to include certain items (flows) in the account 'other changes in assets' in the accumulation accounts (⌦ that is to say, ⌫ certain headings under 'other changes in the volume of assets' and the revaluation account) and the balance sheet.

1.43. On the basis of the tables and accounting structure in the ➔[1] ESA 2010 ←, the sequence of accounts of the EAA can be depicted as shown in Tables 1 to 4.

↓ 2019/280 Art. 1 and Annex I.4(w) (adapted)

A. Current accounts					
Table 1: Production account					
Uses			*Resources*		
P.2	Intermediate consumption	*50*	*P.1*	Output	*100*
B.1g	***Gross value added***	*50*			
P.51c	Consumption of fixed capital	*10*			
B.1n	***Net value added***	*40*			
Table 2: Generation-of-income account					
Uses			*Resources*		
D.1	Compensation of employees	10	B.1n	Net value added	40
D.29	Other taxes on production	5			
D.39	Other subsidies on production	– 10			
B.2n/B.3n	***Operating surplus, net/Mixed income, net***	35			
Table 3: Entrepreneurial income account					
Uses			*Resources*		
D.4	Property income	10	B.2n/B.3n	Operating surplus, net/Mixed income, net	35
D.41	Interest	5			
D.45	Rent	5	D.4	Property income	1
			D.41	Interest	1

			D.42	*Distributed income of corporations*	
			D.43	*Reinvested earnings on foreign direct investment*	
			D.44	*Other investment income*	
			D.45	*Rent*	
B.4n	***Entrepreneurial income, net***	26			
B. Accumulation accounts					
Table 4: Capital account					
Changes in assets			*Changes in liabilities and net worth*		
B.101	*Change in net worth due to saving and capital transfers*		*B.8n*	*Saving, net*	
			D.9r	Capital transfers, receivable	10
			D.92r	Investment grants, receivable	5
			D.99r	Other capital transfers, receivable	5
			D.9p	*Capital transfers, payable*	
			D.91p	*Capital taxes, payable*	
			D.99p	*Other capital transfers, payable*	
P.51g	Gross fixed capital formation (GFCF)	100	*B.101*	*Changes in net worth due to saving and capital transfers*	

P.511	Acquisition less disposals of fixed assets (GFCF in fixed assets)	89			
P.511a	GFCF in plantations	10			
P.511b	GFCF in livestock	15			
P.511c	GFCF in machines and equipment	20			
P.511d	GFCF in transport equipment	20			
P.511e	GFCF in farm buildings	20			
P.511f	GFCF in other works except land improvements (other buildings, structures, etc.)	0			
P.511g	Major improvements to land	4			
P.511h	Research and development	0			
P.511i	Other GFCF ⌦ (for example, ⌫ computer programmes, production rights)	0			
P.512	Costs of ownership transfer on non-produced assets (land, etc.)	1			
P.51c	Consumption of fixed capital	10			
P.52	Changes in inventories	5			
P.53	*Acquisitions less disposals of valuables*				

NP	*Acquisitions less disposals of non-produced assets (land, etc.)*				
B.9	*Net lending(+)/Net borrowing(-)*				
K.1	*Economic appearance of assets*				
K.2	*Economic disappearance of non-produced assets*				

↓ 2019/280 Art. 1 and Annex I.4(x) (adapted)

1.44. It should be borne in mind that transactions and stocks set out in italics in Tables 3 and 4 are items which:

– are not relevant for the EAA because the industry concept is used and the sequence of accounts is incomplete. The headings concerned are headings D.42 Distributed income of corporations, D.43 Reinvested earnings on direct foreign investment, D.44 Other investment income and D.45 Rent under Resources of Table 3 and headings B.8n Saving, net, B.101 Changes in net worth due to saving and capital transfers and B.9 Net lending(+)/Net borrowing(-) in Table 4, or

– are not recorded, either for lack of reliable information or because they are currently of limited interest for EAA purposes. The headings in question are D.9p Capital transfers, payable, D.91p Capital taxes, payable and D.99p Other capital transfers, payable P.53 Acquisitions less disposals of valuables, NP Acquisitions less disposals of non-produced assets (land and other non-produced assets), K.1 Economic appearance of assets, K.2 Economic disappearance of non-produced assets, in Table 4. Some of these (⌦ for example, ⌫ D.91, K.1, K.2) may be recorded in the EAA at some later date.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.4(y)

1.45. The production account records transactions relating to the production process. It includes output under 'Resources' and intermediate consumption under 'Uses'. Value added, ⌦ that is to say, ⌫ the balancing item, may be calculated either before or after consumption of fixed capital (gross or net value added). As output is valued at the basic price and intermediate consumption at purchaser price, the value added includes subsidies less taxes on products.

1.46. The generation of income account is concerned with the formation of income resulting from the production process and its attribution to the 'labour' production factor and general government (in the form of taxes and subsidies). The operating surplus, ⌦ that is to say, ⌫ the balancing item, corresponds to the income which the units generate by using their production assets. ➔1 In the case of unincorporated enterprises in the households sector, the balancing item of this account implicitly contains an element corresponding to remuneration for work carried out by the owner or members of the family. This income from self-employment has characteristics of wages and salaries, and characteristics of profit due to work carried out as an entrepreneur. This income, neither strictly wages nor profits alone, is referred to as 'mixed income' (ESA 2010, point 8.19). ➔

1.47. The entrepreneurial income account makes it possible to measure income which is similar to the concept of current profit before distribution and taxes on income, as customarily used in business accounting.

1.48. The capital account makes it possible to determine the extent to which acquisitions less disposals of non-financial assets have been financed from saving and capital transfers. It shows lending or borrowing. It is not possible to compile a complete capital account for agriculture because, although certain flows may be clearly attributable to this industry, other items (⌦ for example, ⌫ net saving, the balance of the sequence of the current accounts) cannot be calculated on an industry basis. Nevertheless, by recording as much as possible of the changes in the value of non-financial assets in the industry (due to acquisitions, disposals and the consumption of fixed capital) and capital transfers received by the industry, valuable information is obtained on its economic and balance-sheet situation (plus information on the income generated by the production process).

E. SOURCES OF DATA AND METHODS OF CALCULATION FOR COMPILING THE EAA

1.49. One of the main characteristics of the EAA is the adoption of the 'quantity x price' formula when measuring the output of the large majority of products. This approach was prompted mainly by the difficulty of compiling agricultural accounts based on representative samples of business accounts.

1.50. The evaluation of crop output can normally be based on resources, ⌦ that is to say, ⌫ the estimate of quantities produced (harvested) based on estimates of areas under crops and yields, or on uses, ⌦ that is to say, ⌫ on estimates of purchases by the user branches of agricultural products, exports net of imports, to which should be added certain quantities used for intermediate consumption by the agricultural industry, changes in producer stocks and use for own account (much of which is own final consumption). The latter approach can prove highly appropriate in cases where the buyers of these agricultural products are readily identifiable and the four other components of uses are limited (for example, products requiring preliminary processing before they can be used, such as sugar beet, tobacco, etc.). Nevertheless, a physical balance sheet is necessary in order to verify the consistency and reliability of the data.

1.51. Statistics on slaughterings, exports/imports of live animals and the size of herds are the main sources of data for measuring the output of animals. The output of animal products (mainly milk) is generally estimated using sales to user branches (dairies, packers) because of the specific uses to which they are put.

1.52. A more detailed description of the methods of calculation is given in Chapter II.

1.53. Most intermediate goods can basically only be used in agriculture (seeds and planting stock, fertilisers, pesticides, etc.). In this case purchases by agriculture are based on the data relating to sales by branches which supply these intermediate goods (after inclusion of external trade).

1.54. Applying this rule is not without certain risks, however. In fact, sales by producers of intermediate consumption goods, which are mainly used in agriculture, do not necessarily correspond to the purchases of those goods by the agricultural sector, because fertilisers, pesticides, etc. may also be bought for other purposes (stocks of commercial units, consumption of other units such as public parks and households etc.).

F. THE CLASSIFICATION

1. General

↓ 212/2008 Art. 1 and Annex .4 (adapted)

1.55. The EAA are an integral part of the ⌦ ESA 2010 ⌫ and therefore for their compilation use is made of Eurostat's general classification of economic activities, NACE Rev. 2. NACE Rev. 2 is a four-level nomenclature of activities which was compiled in 2006. It is in fact a revision of the general industrial classification of economic activities within the European Communities, or NACE, which was first published by Eurostat in 1970.

↓ 138/2004 (adapted)
→1 212/2008 Art. 1 and Annex .1
→2 212/2008 Art. 1 and Annex .2

1.56. →1 NACE Rev. 2 ← is a more detailed version of →2 ISIC Rev. 4 ← →2 [6] ←, adapted to specifically European circumstances. →1 NACE Rev. 2 ← is also directly linked to the statistical classification of products by activity (CPA) within the ⌦ Union ⌫, which in turn is based on the United Nations' central product classification (CPC).

↓ 212/2008 Art. 1 and Annex .5 (adapted)

1.57. NACE Rev. 2 is a classification of activities which is used for defining industries in the national accounts. It is based on the four-level coding system described ⌦ as follows ⌫:

– a first level consisting of headings identified by an alphabetical code (sections);

– a second level consisting of headings identified by a two-digit numerical code (divisions);

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[6] →2 ISIC Rev. 4 ←: United Nations international standard industrial classification of all economic activities.

– a third level consisting of headings identified by a three-digit numerical code (groups); and

– a fourth level consisting of headings identified by a four-digit numerical code (classes).

↓ 138/2004

1.58. Each level in a classification of economic activities can usually be defined by its characteristic goods or services. Thus, the CPA is used to describe in detail the various economic activities in the agricultural industry with an additional two-digit differentiation providing a more detailed definition of the headings.

↓ 2019/280 Art. 1 and Annex I.4(z)

1.59. According to ESA 2010, the industry corresponds to the group of local KAUs engaged in the same or similar principal activity. At the most detailed level of classification, an industry includes all local KAUs in the same class (four digits) of NACE Rev. 2 and which are therefore engaged in the same activity as defined in this nomenclature (ESA 2010, point 2.150). A definition of the field of the agricultural industry therefore requires a precise statement of:

– its characteristic activities,

– the characteristic units of the EAA.

↓ 138/2004

2. Definition of the characteristic activities of agriculture

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↓ 2019/280 Art. 1 and Annex I.4(aa) (adapted)

1.60. The agricultural industry, as described in the EAA, corresponds, in principle, to Division 01 in NACE Rev. 2 with differences shown in ⌦ points ⌫ 1.62 to 1.65.

↓ 138/2004
→1 2019/280 Art. 1 and Annex I.1(a)
→2 212/2008 Art. 1 and Annex .1

1.61. The EAA are a satellite account in the framework of the national accounts, whose basic concepts, principles and rules are based on the →1 ESA 2010 ←. However, the latter only provides a general framework for the economy as a whole, and has to be adapted to the specific requirements of agriculture. These particular requirements derive mainly from the specific purposes of the EAA, the availability of data sources and the special character of agricultural units and their economic activities. The specific nature of the satellite accounts necessitates the compilation of a list of characteristic agricultural activities of the EAA, which obviously has to be based on →2 NACE Rev 2 ←.

↓ 212/2008 Art. 1 and Annex .6

1.62. For national accounts purposes the agricultural industry is defined as all units performing, either solely or together with other secondary economic activities, activities which come under Division 01 of NACE Rev. 2 'Crop and animal production, hunting and related service activities'. Division 01 comprises[7]:

- Group 01,1: Growing of non-perennial crops;
- Group 01,2: Growing of perennial crops;
- Group 01,3: Plant propagation;
- Group 01,4: Animal production;
- Group 01,5: Mixed farming;
- Group 01,6: Support activities to agriculture and post-harvest crop activities;
- Group 01,7: Hunting, trapping and related service activities.

↓ 2019/280 Art. 1 and Annex I.4(bb) (adapted)

1.63. The list of characteristic agricultural activities of the EAA corresponds to these seven groups of activities (01,1 to 01,7), but with the following differences:

- inclusion of the production of wine and olive oil (exclusively using grapes and olives grown by the same holding),
- exclusion of certain activities which, in NACE Rev. 2, are considered as agricultural services (⌦ for example, ⌫ the operation of irrigation systems — only agricultural contract work is taken into account here).

↓ 138/2004

3. Definition of the characteristic units of agriculture

↓ 212/2008 Art. 1 and Annex .8 (adapted)

1.64. All units which perform characteristic activities of the agricultural industry of the EAA must be included. The units in question perform the activities included in the following groups in NACE Rev. 2:

- groups 01,1 and 01,2: Growing of non-perennial and perennial crops,
- production of seeds: only the units engaged in seed multiplication,
- group 01,3: Plant propagation
- group 01,4: Animal production,

[7] See also the 'Explanatory notes': Eurostat: NACE Rev. 2, Statistical classification of economic activities in the European Community, Theme 2, Series E, Luxembourg, 2007.

– group 01,5: Mixed farming,

– group 01,6: Support activities to agriculture and post-harvest crop activities

– excluding units which perform agricultural service activities other than contract work (⌦ that is to say, ⌫ units which operate irrigation systems or seed processing for propagation),

– group 01,7: Hunting, trapping and related service activities.

↓ 138/2004 (adapted)

1.65. It can be seen from the list that, apart from agricultural holdings, the other characteristic units of agriculture are: groupings of producers producing wine and olive oil and specialist units performing agricultural contract work (⌦ see points ⌫ 1.20 and 1.21). It should be remembered that units for which the agricultural activity represents solely a leisure activity are not included among the characteristic units of agriculture (⌦ see point ⌫ 1.24).

4. Observations concerning various items

↓ 212/2008 Art. 1 and Annex .10 (adapted)

(a) Groups 01,1 ⌦ , 01,2 and ⌫ 01,3: Growing of non-perennial and perennial crops, plant propagation

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↓ 212/2008 Art. 1 and Annex .11 (adapted)

1.66. Groups 01,1 ⌦ , 01,2 and ⌫ 01,3 include a systematic breakdown making it possible to classify all crop production activities in the Member States.

↓ 138/2004 (adapted)

1.67. In order to be recorded, the production of fodder crops must be part of an economic activity.

1.68. In the nomenclature of the EAA, agricultural seeds are grouped under the heading 'Seeds', the exceptions being seed for cereals (including rice), oilseeds, protein crops and potatoes, which are entered respectively under the individual cereal and oilseeds varieties, protein crops and potatoes[8]. The production of seeds in fact covers several types of production activity: research (⌦ that is to say, ⌫ production of first-generation seed prototypes), multiplication (done by agricultural holdings under contract) and certification (⌦ that is to say, ⌫ grading and packing by specialist production units). Only the multiplication of seeds is a characteristic agricultural activity since research and certification activities are done by research and production institutes and are not part of traditional agricultural activity (⌦ that is to

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[8] The reason for this deviation from the general rule is that in these special cases a considerable part of the seed is obtained from the normal output of the corresponding cereal, oilseed, protein crop or potato harvest, whereas in other cases it is produced in specialised holdings.

say, ⌫ the exploitation of natural resources with a view to producing plants and animals). As a result, the production of seeds in the EAA only concerns the production of multiplied seeds. The intermediate consumption of seeds corresponds to: (i) first-generation seeds purchased with a view to multiplication; and (ii) certified seeds purchased by agricultural producers with a view to crop production.

↓ 212/2008 Art. 1 and Annex .13 (adapted)

1.69. Following the convention adopted by NACE Rev. 2[9], when own produced agricultural products are processed by the same unit of production, the processed products are also attributed to agriculture. As an example, grape must, wine and olive oil are treated as food products in the CPA. NACE Rev. 2 classifies the production of wine and olive oil under Section C 'manufacturing' (Classes 11,02 'Manufacture of wine from grape' and 10,41 'Manufacture of oils and fats'). Only the production of wine grapes and olives comes under agriculture (Classes 01,21 'Growing of grapes' and 01,26 'Growing of oleaginous fruits'). However, following ⌦ that ⌫ convention, wine and olive oil produced from grapes and olives grown by the same unit of production are attributed to agriculture.

↓ 138/2004 (adapted)

1.70. The production of wine by units closely linked to agricultural holdings is also treated as a characteristic agricultural activity in the EAA. Units with strong links to agricultural holdings include groups of producers (⌦ for example, ⌫ vine-growers' cooperatives). Their inclusion in the agricultural industry is dictated by the nature of these organisations, which have historically represented an 'extension' of agricultural holdings (on mutual grounds relating to production and marketing) and which are usually owned by them. By contrast, the production of wine (olive oil) by agri-food businesses is excluded from the EAA (since it is clearly industrial by nature).

1.71. The production of grape must features together with the production of wine in the list of characteristic activities since grape must can be sold or exported in its raw state or added to stocks prior to being sold or exported, either for consumption or to be made into wine, in a subsequent reference period.

1.72. Since wine, olive oil and grape must (the latter only in so far as it is not vinified during the reference period) result from agricultural production in the form of the processing of grapes and olives grown by the same unit, neither grapes intended for the manufacture of grape must and wine nor olives intended for the manufacture of olive oil (⌦ that is to say, ⌫ the basic products) should be included under output. They are treated as intra-unit consumption which is not measured as industry output (⌦ see point ⌫ 2.052). Grape must which is not vinified during the reference period should be included in the period's output. During the vinification period, it should be recorded as intermediate consumption (intra-industry consumption) balancing a corresponding stock decline. The wine resulting from the processing of the must should be recorded as a component of output.

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[9] See the 'Introductory guidelines' to NACE Rev. 2: Statistical classification of economic activities in the European Community, Theme 2, Series E, Luxembourg, 2007.

1.73. Plantations (⌦ for example, ⌫ vineyards and orchards) are fixed capital goods, and their establishment has to be recorded under output. The establishment of plantations for own account constitutes 'Own-account produced fixed capital goods'. When the establishment of plantations is carried out by specialised units on contract basis, the corresponding value is considered as 'Sales'.

↓ 212/2008 Art. 1 and Annex .14

(b) Group 01,4: Animal production

↓ 138/2004 (adapted)
→1 212/2008 Art. 1 and Annex .16
→2 2019/280 Art. 1 and Annex I.4(cc)

1.74. As with crop-growing activities (⌦ see point ⌫ 1.66), this group comprises a systematic breakdown of all the livestock and animal products produced in the Member States.

1.75. Horse breeding is a characteristic activity of the EAA whatever the final destination of the animal may be (breeding, meat production or services). →1 It should be noted, however, that the management of racehorse stables and riding schools is not a characteristic agricultural activity (it is a part of 'Sports activities and amusement and recreation activities': Division 93) (⌦ see point ⌫ 2.210). ← →2 Therefore, flows accruing to farmers from such activities must be excluded from the EAA. ← In addition, the keeping of racehorses or saddle horses which are not part of the agricultural production process is excluded from the EAA. A similar treatment is applied to bulls bred for bullfights.

1.76. In the economic accounts, by-products[10] which automatically result from the production of certain agricultural products are not recorded under the same headings as the product itself. They appear separately at the end of each group of production activities, broken down by species. In crop production, for example, examples include straw, beet leaves and cabbage leaves, pea and bean pods, etc.; in vinification, lees and argols; in the manufacture of olive oil, waste, such as oilseed cakes; and, in the case of animal production, hides, hair and the fur of dead game, and wax, manure and slurry. Generally speaking, none of these products is the prime objective of production, which explains why it is so rare for statistical data on them to be reliable. In agriculture itself, these products are used mainly as animal feedingstuffs or soil improvers. Occasionally, however, these by-products are sold to economic sectors other than agriculture, in which case the value of output should be shown in the EAA.

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[10] A secondary product is a product which is technically linked to the production of other products. It may be exclusive when linked to other products of the same group but whose production is exclusive to this group, or ordinary when linked to other products, but whose production is not peculiar to one group.

↓ 212/2008 Art. 1 and Annex .17

(c) Group 01,6: Support activities to agriculture and post-harvest crop activities

↓ 212/2008 Art. 1 and Annex .18 (adapted)

1.77. The activities in group 01,6 can be divided into two categories:

– agricultural services in the form of contract work at the production stage (⌦ that is to say, ⌫ agricultural contract work),

– 'other' agricultural services (the operation of irrigation systems, seed processing for propagation, etc.).

↓ 212/2008 Art. 1 and Annex .19

1.78. Agricultural service activities in the second category are not treated as characteristic EAA activities (even though they are recorded in the agricultural accounts of the national accounts), since they are not traditional or typical agricultural activities.

↓ 138/2004 (adapted)
➔1 212/2008 Art. 1 and Annex .20

Agricultural contract work

1.79. As part of the process of economic specialisation, agricultural holdings and households have long since ceased to perform certain functions, which have been taken up by a growing number of specialist professions with their own production units. This division of functions mainly concerns the processing of agricultural products (slaughtering and meat processing, the milling of cereals, the manufacture of bread, butter and cheese and the processing of seeds by new sectors), and, at a later stage, certain marketing transactions. This is especially the case in the context of the major structural changes affecting agriculture, the growing use of large machines and agricultural activities which make a direct contribution to the production of crop products and animal husbandry and which have increasingly been outsourced to specialised units.

1.80. Notable among these activities are manuring, liming, ploughing, sowing, weeding, pest control, plant protection, hay harvesting, threshing and the shearing of sheep.

1.81. A characteristic feature of all these activities is that they are generally necessary as part of the production process for agricultural products and are linked to the production of these products.

1.82. Activities which are not directly related to the production of agricultural products, ⌦ that is to say, those ⌫ which do not take place at the agricultural production stage (⌦ the ⌫ transport for account of third parties and deliveries of milk to dairies are examples of a non-agricultural activity constituting part of a different industry) should not feature in the EAA (unless they are activities which are inseparable from the principal agricultural activity; ⌦ see point ⌫ 1.12).

1.83. It should be borne in mind that this classification applies only ⌦ in ⌫ so far as the activities in question are exclusively for ⌦ the ⌫ account of the specialised units. ➔1 If, on the other hand, the farmer hires machines without operators or with only some of the operators required, with the result that ⌦ the farmer ⌫ continues to carry out the activity as such, with the help of the machines, this activity comes under Division 77 of NACE Rev. 2. ← This situation mainly occurs with simple machines requiring relatively few repairs, and mainly during peak periods, when the machines are in greatest demand (⌦ see point ⌫ 1.23).

1.84. Contract work performed during the agricultural production stage mainly involves the use of expensive machines and equipment. Such work may be performed by:

(a) specialist contractors for whom these are the principal activities (contractors in the true sense);

(b) agricultural holdings

Contract work by holders usually takes the following forms:

– as far as farmers' supplementary income is concerned, the most flexible form is occasional aid given to neighbours. This category also includes the provision of accommodation for livestock and, mainly for pigs and poultry, animal husbandry on a fee basis (especially fattening). Accommodation may be provided for livestock owned by another farmer or the livestock may be the property of an industrial enterprise, usually a supplier (⌦ for example, ⌫ a manufacturer of/trader in fodder crops) or a purchaser (⌦ for example, ⌫ an abattoir),

– in the form of a more or less autonomous machine pool which represents a systematised form of mutual aid between neighbours. The high cost of machinery and its low rate of utilisation by an individual holding lead holdings which possess such machines to form machine pools which are placed at the disposal of other holdings, complete with the necessary personnel. Increasingly, farmers are deriving their main agricultural income from contract work on account of persons for whom agriculture is no more than a secondary activity and who in some cases are merely the owners of the land,

– agricultural machine cooperatives[11]. These are large cooperatives with paid employees; they resemble specialist contractors;

(c) enterprises involved in a subsequent production stage which harvest fruit or vegetables ⌦ which are ⌫ then processed ⌦ by them ⌫ (⌦ for example, ⌫ tinning factories tinning peas under contract);

(d) enterprises involved in a previous production stage. These include traders in agricultural machinery who perform contract work. Although other cases may, from the point of view of the EAA, seem highly unlikely, it is theoretically possible for manufacturers of pesticides to apply the product ⌦ themselves ⌫. If this is done using the most modern techniques, however, it is not necessarily contract work at the agricultural production stage, and

[11] The equipment and machines belong to the cooperative, unlike with pools of machines, where they are generally the property of individual holdings.

certainly not if the work is not regularly carried out by the farmer (⌦ for example, ⌫ aerial spraying of parasites).

1.85. In cases where it has to be decided if an activity should be treated as contract work (⌦ that is to say, ⌫ work which, in the context of the agricultural production process, would normally be performed by agricultural holdings themselves), it should be borne in mind that not only the nature of the activity, but also the specific context in which it is performed, ⌦ that is to say, ⌫ the 'agricultural production process' is important.

↓ 212/2008 Art. 1 and Annex .21
→1 2019/280 Art. 1 and Annex I.1(a)

1.86. Animal husbandry performed on farms for remuneration (the provision of land for livestock) is agricultural contract work since it is part of the agricultural production process. This heading does not, however, include the private rearing and care of saddle horses, since these activities do not constitute the production of goods but a genuine service within the meaning of the →1 ESA 2010 ← (Section R of NACE Rev. 2).

↓ 138/2004 (adapted)

1.87. The type of compensation paid to the persons performing contract work is unimportant. It does not in any way have to be fixed remuneration (⌦ that is to say, ⌫ a wage in the strict sense); the compensation can perfectly well take the form of profit-sharing or a mixed formula (for example, a farmer who fattens calves in return for compensation generally receives a fixed amount for each animal plus a share in net profit). Compensation can also take the form of a specified share of the output.

1.88. Nevertheless, the work must always be performed by independent enterprises: work performed by the holding's paid employees does not fall into this category. From the point of view of the holding, remuneration for such work (for example, work done by a paid herdsman) is a wage cost and appears under the heading 'compensation of employees'. By contrast, work performed by an enterprise which carried out milking on a contract basis for other agricultural holdings is recorded in the EAA both as output (sales of services), from the point of view of the contractor, and as intermediate consumption (purchase of services), from the point of view of the agricultural holding.

↓ 212/2008 Art. 1 and Annex .22

(d) Group 01,7: Hunting, trapping and related service activities

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↓ 212/2008 Art. 1 and Annex .23

1.89. This group of activities comprises the following activities: (i) hunting and trapping on a commercial basis; (ii) taking of animals (dead or alive) for food, fur or skin, or for use in research, in zoos or as pets; (iii) production of fur skins or reptile or bird skins from hunting or trapping activities. It should be noted that the production of

hide and leather from slaughterhouses and hunting performed as a sports or recreation activity are not included as characteristic activities of the agricultural industry. Additionally, the 'hunting' group does not comprise the breeding of game on holdings, which should be recorded under class 01,49 'Raising of other animals'.

↓ 138/2004

5. Discrepancy between the EAA agricultural industry and the agricultural branch of the central framework of the national accounts

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↓ 2019/280 Art. 1 and Annex I.4(dd) (adapted)

1.90. The EAA agricultural industry, as defined in ⌦ points ⌫ 1.62 to 1.65, differs in some respects from the ⌦ agricultural ⌫ branch as defined for national accounts purposes. The differences relate to the definition of both characteristic activities and units. They can be summarised as follows:

EAA agricultural industry = NA agricultural branch (NACE Rev. 2 Division 01)

– Production of units providing associated agricultural services other than agricultural contract work (⌦ for example, ⌫ the operation of irrigation systems)

– Units for which the agricultural activity represents solely a leisure activity and which are included in national accounts, ⌦ see ⌫ ESA 2010, point 3.08

+ Production of units producing wine and olive oil (exclusively using grapes and olives grown by the same unit (grouping of producers, cooperatives, etc.))

+ Separable secondary agricultural activities of units whose principal activity is not agricultural (⌦ see point ⌫ 1.18).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.1(a)

II. TRANSACTIONS IN PRODUCTS

2.001. Transactions in products provide an account of the origin and use of products. Products are goods and services created within the production boundary. The main categories of transactions in products defined by the ➔1 ESA 2010 ← are: output, intermediate consumption, final consumption expenditure, actual final consumption, gross capital formation, exports of goods and services and imports of goods and services.

2.002. As ⌦ referred to ⌫ in ⌦ points ⌫ 1.40 and 1.41, only output, intermediate consumption and gross capital formation are taken into account in the EAA. Output is recorded as a resource and intermediate consumption as a use in the production account. Gross capital formation is recorded as a use (a change in assets) in the capital account.

A. GENERAL RULES

1. Reference period

2.003. For the EAA, the reference period is the calendar year.

2. Units

(a) Quantities

2.004. Quantities should generally be shown in 1 000 t, (in 10 000 hl, for grape must and wine) to one decimal place. For animals, live weight is used.

(b) Prices

2.005. In the EAA, prices should be shown per tonne (per 10 hl for wine and grape must).

↓ 2022/590 Art. 1.4 and Annex I.3

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.

↓ 138/2004

(c) Values

2.007. Values should be shown in millions of units of national currency.

3. Time of recording

↓ 2019/280 Art. 1 and Annex I.5(a) (adapted)

2.008. The ESA 2010 (points 1.101 ⌦ to ⌫ 1.105) records flows (especially transactions in products and distributive transactions) on an accrual basis, in other words, at the time when an economic value, amount due or claim is created, transformed, cancelled or ceases to exist, and not at the time when payment is actually made.

↓ 138/2004

(a) Output

2.009. Output should be valued and recorded at the time it is generated. It is therefore to be recorded when produced and not when paid for by the purchaser.

↓ 2019/280 Art. 1 and Annex I.5(b) (adapted)

2.010. In the ESA 2010, production is treated as a continuous process in which goods and services are converted into other goods and services. This process may take place over different periods depending on the products, and the periods may exceed an accounting period. This characterisation of production, combined with the accrual

principle, therefore results in the recording of output in the form of work in progress. Thus, according to the ESA 2010 (point 3.54), the output of agricultural products is recorded as being produced continuously over the entire period of production (and not only when the crops are harvested or animals slaughtered). Growing crops, standing timber and stocks of fish or animals reared for the purposes of food are treated as inventories of work-in-progress during the production process and transformed into inventories of finished products when the process is completed. Output excludes any changes in uncultivated biological resources, ⌦ for example, ⌫ growth of animals, birds, fish living in the wild or uncultivated growth of forests, but it includes catches of animals, birds, fish living in the wild.

↓ 2019/280 Art. 1 and Annex I.5(c)

2.011. Recording output as work in progress is both desirable and necessary for economic analysis when the production process occurs over a period exceeding the accounting period. This allows consistency to be maintained between the recording of costs and that of output in order to obtain meaningful data on value added. Since the EAA are based on the calendar year, the recording of work in progress can be assumed to apply only to products whose production process was not completed at the end of the calendar year (but also in cases where the general price level undergoes very rapid changes during the accounting period).

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.5(d)
→2 2019/280 Art. 1 and Annex I.5(e)

2.012. However, for farm products whose production cycle is shorter than the accounting period, it would be unnecessary to record the output as work in progress. The recording of output at the finished product stage, ⌦ that is to say, ⌫ at the harvest (for crop production), in fact allows an adequate degree of consistency between it and the production costs to be maintained. This is the situation for most agricultural output whose production cycle lasts less than a year. It is not necessary, either, to record as work-in-progress short-cycle crop production whose production process overlaps into a second calendar year (⌦ see point ⌫ 2.173.). In these cases, growing crops are not considered to be stocks of work in progress.

2.013. In practice, only products with a long production cycle are concerned by the method of recording in the form of work in progress. Such products are in particular livestock, crop products such as wine (whose ageing is an integral part of the production process) and plantations. The normal trend in prices in the Union is in fact generally not very marked and should not be a reason for recording certain products as work in progress (although this could happen in exceptional cases, ⌦ see point ⌫ 2.173).

2.014. When products with a long production cycle which have been recorded as work in progress are harvested (crop production) or slaughtered (animals), the production process is completed and the work in progress is transformed into stocks of finished products ready to be sold or used for other purposes. →1 During the production

process, the value to be recorded each year as output under work in progress can be obtained by distributing the expected value of the finished product in proportion to the costs incurred each period (2008 SNA, point 6.112). ←

2.015. Animals: animal production normally requires a period of time, possibly spanning several accounting periods before the process is completed. From the time of birth, it is possible and also appropriate to record an entry for each phase of production, ⌦ that is to say, ⌫ for each age group of individual animals (the part of the production process preceding the birth, however, cannot be recorded because it cannot be isolated from the services consumed in rearing the parent animal).

2.016. The production process for draught animals is formally completed at their birth; from that time on, they are recorded as capital assets. The animals are, of course, not then ready for their intended use, but the individual variations are such that any selection of a fixed age for all cases would be highly arbitrary. The moment of birth has been selected for practical reasons, particularly since the subsequent use to which they will be put is already determined at this stage.

2.017. This is not always the case for cattle, pigs, sheep and other livestock which may be reared for breeding purposes or for slaughter. ➔2 When it is possible to differentiate between young animals according to their future use, animals intended for use as factors of production should be recorded as GFCF right from their birth (own-account GFCF, which is recorded when it is produced) (⌦ that is to say, ⌫ they are considered as work in progress and their growth is registered as output, ⌦ see ⌫ ESA 2010, point 3.134). ← Otherwise, animals are included in stocks as work in progress until they become mature and are used themselves as factors of production (⌦ for example, ⌫ as dairy cows, for breeding or other productive purposes such as wool production). They are then recorded under fixed capital. Animals which have been removed from breeding herds before being slaughtered should also be recorded as stocks and not capital assets.

2.018. Chick production is given special treatment if it spans two reference periods. Eggs hatching in incubators at the end of a period are regarded as output of chicks and recorded in the EAA under poultry output (in the form of work in progress) (⌦ see point ⌫ 2.048).

2.019. Wine: output should be recorded as work in progress since its ageing forms part of the production process and can last over several accounting periods. Similarly, fermenting grape must, which, though no longer raw must, is not yet wine, is treated at the end of an accounting period in the same way as eggs hatching in incubators and shown in the EAA as wine in the form of work in progress.

2.020. Assets cultivated in plantations: goods intended for own-account GFCF (other than livestock) such as plantations yielding repeat products should be recorded as GFCF at the time of production of the assets concerned.

(b) Intermediate consumption

2.021. Goods and services should be recorded at the time they enter the production process, ⌦ that is to say, ⌫ when they are actually consumed and not when they are purchased or taken into storage.

2.022. The consumption of goods for a given reference period in practice corresponds to purchases or acquisitions of goods plus the initial stocks and minus the final stocks at the end of the period[12].

2.023. Services are recorded at the time of purchase. Since services cannot be stored, the time of purchase is also the time of consumption.

2.024. The following services are an exception to this rule:

– services connected with the purchase of goods, such as trade and transport services, are recorded as intermediate consumption at the time ⌦ when ⌫ the goods in question are consumed (⌦ see point ⌫ 2.112),

– services considered to be permanent, such as insurance services. These are recorded on a pro-rata basis at the end of the reference period according to the proportion of the payment due for the year, or part-year, in question. Accordingly, the amounts recorded do not necessarily correspond to the insurance premiums paid within the period concerned.

(c) Gross fixed capital formation

2.025. GFCF is recorded at the time of transfer of ownership of the fixed assets concerned to a unit intending to use them for production purposes. Nevertheless, there are two exceptions to this principle: first, assets acquired through financial leasing are recorded as if the user became the owner when the goods became available to ⌦ the user ⌫ for use (⌦ see point ⌫ 2.123). Secondly, own-account GFCF is recorded at the time of production of the assets concerned (except cattle, pigs, sheep and other livestock, the future use of which cannot be clearly defined since these animals are included in stocks as work in progress, ⌦ see point ⌫ 2.017).

2.026. Correspondingly, in the case of the establishment of orchards and vineyards (fixed capital goods produced on own account), if not all the necessary work has been completed by the end of the accounting period, the value of the materials consumed and services rendered over the reference year is recorded as GFCF at the end of the period.

2.027. Land purchases and sales as well as associated costs are recorded at the time of transfer of ownership. However, the net acquisition of land is not included in GFCF since the land is a non-produced asset. The net acquisition of land (and other non-produced tangible assets) is recorded in the capital account (acquisitions of non-financial assets account).

(d) Changes in stocks

2.028. Changes in stocks correspond to the difference between goods entering and goods withdrawn from stocks over the reference period.

2.029. Goods entering stocks are either goods intended for consumption in the production process later (input stocks), in which case they are recorded at the time of transfer of ownership, or else they are goods from the industry itself to be put to future use, ⌦ for example, ⌫ by sale or by transfer to the unit's fixed capital (output stocks), in which case they are recorded as stocks when their production is completed.

[12] See points 2.029, 2.030 and 2.031 for the time at which stocks are recorded.

2.030. In the case of unfinished products from the industry (recorded as work in progress), the value of the materials consumed and the services rendered over a reference period is also recorded as stocks at the end of that period (except for short-cycle standing crops, ⌦ see point ⌫ 2.012; as a result, part of the materials consumed and services rendered during a reference period will have been consumed without an offsetting increase in the value of the stocks).

2.031. Goods withdrawn from stocks are, in the case of input stocks, goods entering the production process or, in the case of output stocks, goods leaving the industry to be sold or to serve some other use. In the first case, the goods are deducted from the industry stocks at the time of their actual intermediate consumption in the production process; in the second case, they are deducted from the stocks at the time of their sale or other use.

B. OUTPUT

↓ 2019/280 Art. 1 and Annex I.5(f) (adapted)

(⌦ see ⌫ ESA 2010, points 3.07 to 3.54)

↓ 138/2004
→1 2019/280 Art. 1 and Annex I.1(a)

1. General comments on the concepts of output in the →1 ESA 2010 ← and EAA

↓ 2019/280 Art. 1 and Annex I.5(g)

2.032. Output is the total of products created during the accounting period (ESA 2010, point 3.14). It is important to keep the distinction between the term 'output' and the term 'production', while output denotes the resulting goods and services, production denotes the process.

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)
→2 2019/280 Art. 1 and Annex I.5(h)
→3 2019/280 Art. 1 and Annex I.5(i)

2.033. According to the →1 ESA 2010 ←, output also includes: (i) goods and services supplied by one local KAU to another belonging to the same institutional unit, (ii) goods produced by one local KAU and still in the stocks at the end of the accounting period in which they were produced, whatever use they are intended for subsequently. However, goods or services produced and consumed during the same accounting period by the same local KAU are not recorded separately. →2 They are therefore not recorded as part of the output or as intermediate consumption of that local KAU. ←

2.034. The concept of output used in the EAA which is related to the concept of 'total output' is based on an adaptation of the ➔1 ESA 2010 ←, since some agricultural goods and services produced and consumed during the same accounting period within the same agricultural unit are recorded in the output of overall agricultural activity. The criteria for identifying these goods and services for inclusion in the ⌦ output of ⌫ agricultural industry are set out in ⌦ point ⌫ 2.055. The difference between the ➔1 ESA 2010 ← and the method adopted in the EAA is represented by these elements of intra-unit consumption whose value is included in both output and intermediate consumption. The value added thus remains identical, whichever method is used.

2.035. As ⌦ referred to ⌫ in ⌦ point ⌫ 1.34, this ⌦ adaptation ⌫ of the ESA ⌦ 2010 ⌫ rule is based on the special nature of the agricultural activity and the agricultural holding (as a local KAU). Furthermore, it makes it possible to:

– improve the economic analysis of agricultural accounts, especially the definition of technical coefficients and value added rates (the ratio between output and intermediate consumption),

– improve the comparison of technical coefficients and value added rates between subbranches of economic activity and countries. In fact, the output consumed within a unit is mainly limited to a few specific products (such as cereals, protein and oleaginous products, forage crops and milk for livestock feeding) and rates of intra-unit consumption vary considerably depending on the economic branch and country.

– strengthen consistency between the production, generation of income and entrepreneurial income accounts: the necessary consistency between transactions in products (output, intermediate consumption, etc.) and distributive transactions (compensation of employees, subsidies, taxes, rents, interest, etc.) has been strengthened since the reform of the common agricultural policy in 1992 in that subsidies (some of which concern products subject to intra-branch consumption) currently play an important role in the formation and development of agricultural income.

2.036. ➔3 Although it is not proposed by the ESA 2010, the rule adopted in the EAA is provided for by the SNA because of the special nature of agriculture, and by the FAO methodological manual[13]. ← Finally, it allows the difference between the measurements of output stemming from the choice of basic unit (local KAU or unit of homogeneous production) to be reduced substantially.

[13] FAO (1996) System of economic accounts for food and agriculture, United Nations, Rome.

2. *Output of agricultural activity: quantities*

2.037. In the compilation of the EAA, output is progressively broken down in quantity terms.

Schematic representation of resources and uses of agricultural products

Schematic representation of resources and uses of agricultural products

<table>
<tr><td colspan="7">Gross output (1q)</td><td></td></tr>
<tr><td>Losses (2q)</td><td colspan="6">Usable output (3q)</td><td>Initial stocks (IS) (4q)</td></tr>
<tr><td></td><td colspan="7">Total available resources (5q)</td></tr>
<tr><td></td><td rowspan="2">Intra-unit consump-tion (6q)</td><td rowspan="2">Processing by pro-ducers (7q)</td><td rowspan="2">Own final consump-tion (8q)</td><td rowspan="2">Total Sales (9q)</td><td rowspan="2">S (*) (10q)</td><td colspan="2">Final stocks (FS) (11q)</td></tr>
<tr><td></td><td>FS-IS (**) (12q)</td></tr>
</table>

(*) S = Own-account produced fixed capital goods.
(**) FS-IS = Change in stocks. In the above diagram, the final stocks are assumed to be greater than the initial stocks.

2.038. ⌦ Depending on whether the reference harvest figures include field, harvest and farm losses or not, ⌫ the starting point for this progressive calculation is either:

– gross output (1q), or

– usable output (3q).

(a) Gross output

Gross output: (1q)

2.039. This is the starting point for countries whose official harvest statistics include losses. In accordance with the industry concept, all the products of the agricultural activities of agricultural units within the industry (as ⌦ referred to in points ⌫ 1.62 and 1.63) need to be measured. In ⌦ accordance ⌫ with the convention adopted in ⌦ point ⌫ 1.31 (that the output of the secondary agricultural activities of non-agricultural units is non-existent because all agricultural activities are assumed to be separable and therefore form the main activity of their own local agricultural KAU), all agricultural output needs to be recorded except that produced by units for which the agricultural activity represents solely a leisure activity (⌦ see point ⌫ 1.24).

(b) Losses

Losses: (2q)

2.040. This item refers to recurrent losses of goods in inventories (⌦ see point ⌫ 2.041). These include field, harvesting and other losses on farms (due to the perishable nature of the products, weather influences, such as frost, drought, etc.). Losses occurring during the various marketing stages, ⌦ that is to say, ⌫ during transport from the farm, during storage with dealers and during processing or treatment in the processing industry should not be included here. In contrast, products offered for sale by producers but remaining unsold and therefore spoiled (particularly fruit and vegetables) should also be included here.

Types of losses

↓ 2019/280 Art. 1 and Annex I.5(j)

2.041. Following ESA 2010, there are three types of losses that can be incurred by producers: recurrent losses in inventories (ESA 2010, point 3.147), exceptional losses in inventories (ESA 2010, point 6.13.e), and catastrophic losses (ESA 2010, points 6.08 and 6.09).

↓ 138/2004 (adapted)
➔1 212/2008 Art. 1 and Annex .1

Recording of the three types of losses

2.042. For recording losses of goods in inventories, a distinction needs to be made between recurrent losses, on the one hand, and exceptional and catastrophic losses, on the other. But the recording of losses also depends on the method of calculation of output and the type of basic statistical material of each country.

2.043. When output is calculated from data on initial and final stocks, sales and possibly other uses (such as own-account produced fixed capital goods), recurrent losses are already deducted from the changes in stocks, and ⌦ the ⌫ recording of them a further time under the item 'losses' would lead to double-counting. In contrast, where the calculation of output is not based on stocks data but instead on a well-founded calculation such as actual birth figures, recurrent losses during production in the reference period concerned should be recorded, as well as losses of animals imported for rearing or fattening or born during previous periods.

2.044. Exceptional and catastrophic losses of goods in inventories have to be recorded in the accumulation accounts, namely in the 'other changes in the volume of assets' account. Output therefore includes the full value of these losses.

2.045. Losses (whether recurrent, exceptional or catastrophic) of fixed assets (such as dairy cows, breeding animals, etc.) should be recorded in 'other changes in the volume of assets' account. They have no impact on the value of output. It should be stressed that losses affecting plantations which are already producing have to be recorded either as 'fixed capital consumption' or as 'other changes in the volume of assets', depending on the type of loss.

(c) Usable output

Usable output: (3q) = (1q) minus (2q) = gross output minus losses (at the producer stage)

2.046. This is the first item to be entered by countries whose reference harvest statistics do not include losses. It constitutes the disposable production of the reference period which will be either marketed, used as a means of production, processed by the producers ⌦ themselves ⌫, consumed in ⌦ their ⌫ households, put into storage, or possibly, used as own-account produced fixed capital goods.

(d) Initial stocks

Initial stocks: (4q)

2.047. These constitute the finished or semi-finished stocks of own products existing on the agricultural holdings (⌦ that is to say, ⌫ held by producers) at the beginning of the reference year. Stocks at the different marketing stages and intervention stocks should therefore not be entered here (⌦ see point ⌫ 2.202 and following regarding the treatment of livestock).

2.048. The initial stocks of 'poultry' should also include eggs hatching in incubators at the start of the reference period since they are regarded as semi-finished poultry products (⌦ see point ⌫ 2.018).

(e) Total available resources

Total available resources: (5q) = usable output plus initial stocks (3q plus 4q)

(f) Intra-unit consumption

Intra-unit consumption: (6q)

2.049. Under the heading of intra-unit consumption recorded are products produced within the agricultural unit (local KAU) and used by the unit as inputs into the production process within the same accounting period.

2.050. All agricultural products (except livestock; ⌦ see points ⌫ 2.067 and 2.209) sold by an agricultural unit to other producing agricultural units must be recorded as sales and then as intermediate consumption. These include goods subjected to treatment and processing and their by-products (⌦ for example, ⌫ the return of skimmed milk, bran, oilcake and sugar beet pulp and tops, as well as the return of seeds after treatment).

Classification of intra-unit consumption

2.051. Intra-unit consumption can be broken down according to the use of the products concerned:

2.052. Products consumed within the industry by the same agricultural activity ⌦ (that is to say, ⌫ the same class of activity, at ➔1 NACE Rev. 2 ← four-digit level):

– seed (for cereals, vegetables, flowers, etc.): reused for the same crop;

– wine grapes and grape must: used in wine production;

– olives: used in olive oil production;

– milk: used in livestock feed.

2.053. Products consumed within the industry by a different agricultural activity (⌦ that is to say, ⌫ a different class of activity, at ➔1 NACE Rev. 2 ← four-digit level).

These are mainly crop products used in animal feed, but also animal by-products used in the production process of another activity (slurry and manure used as fertilising elements for crop production). Crop products used in animal feed can be classed according to the degree to which they are normally marketed (which is estimated in general):

– normally marketable animal feed products: cereals (wheat, rye, barley, oats, maize, sorghum, rice and other cereal grain); protein crops; potatoes; oilseeds (rape seed, sunflower seed, soya beans and other oilseeds),

– normally unmarketable animal feed products:

  – annual fodder products: root crops (sugar beet, fodder beet, swedes, fodder turnips, fodder carrots, fodder kale/curly kale and other root crops); fodder maize and other green fodder (green, dried or preserved),

  – perennial fodder products: permanent and temporary fodder products derived from an economic activity (green, dried or preserved),

  – fodder by-products (straw, chaff, plant leaves and ends and other fodder by-products).

Definition of intra-unit consumption to be included in the industry's output

2.054. Agricultural products undergoing intra-unit consumption are not included in the measurement of the output of the industry unless they meet certain criteria. The setting of restrictive criteria for recording intra-unit consumption meets two requirements: first, a methodological one since, after deviating from the letter of the ESA ⌦ 2010 ⌫ rule, there was a need to follow it in spirit (by involving two separate activities); secondly, a practical one, since the criteria to be developed were to serve as a precise and comparable framework for defining which intra-unit consumption had to be recorded, to make this method of measuring output feasible.

2.055. These criteria are as follows:

↓ 212/2008 Art. 1 and Annex .25

1. The two activities exercised should come under different four-digit levels of NACE Rev. 2 (Division 01: Crop and animal production, hunting and related service activities). The application of this criterion thus precludes, for example, the valuation of seed produced and used on the same holding for crop production (during the same accounting period);

↓ 138/2004 (adapted)

2. The agricultural product should have a significant economic value for a significant number of farmers.

3. Data on prices and quantities must be available without too much difficulty. This criterion is difficult to meet for some unmarketable products.

2.056. In ⌦ accordance ⌫ with the definition of the selection criteria for including intra-unit consumption products in the measurement of output (⌦ see point ⌫ 2.055), only crop products used in animal feed (marketable or not) are to be recorded in the agricultural output of the industry.

2.057. When these products are recorded in the industry's output, they must also be recorded as intermediate consumption, thereby respecting the principle that total quantities produced and then used for a different production activity during the reference year are taken into account (- ⌦ see point ⌫ 2.055). When the change from output to intermediate consumption takes longer than the reference year in question, then the corresponding quantities of output should be recorded as ‘final stocks’ of the product concerned during the reference year.

2.058. Animal by-products are excluded from intra-unit consumption because of the practical difficulties of unavailability of data on quantities and especially prices.

(g) Processing by producers

Processing by producers: (7q)

↓ 2019/280 Art. 1 and Annex I.5(k) (adapted)

2.059. Under the heading of processing by producers ⌦ are ⌫ recorded ⌦ the ⌫ quantities produced for further processing by agricultural producers (⌦ for example, ⌫ milk processed to make butter or cheese, apples processed to make apple must or cider) but only in the framework of processing activities which are separable from the main agricultural activity (on the basis of accounting documents, ⌦ see point ⌫ 1.26). Only the raw products (⌦ for example, ⌫ raw milk, apples) should be recorded and not the processed products manufactured from them (⌦ for example, ⌫ butter, apple must and cider). In other words, the work incorporated in the processing of agricultural products is not taken into consideration under this heading.

↓ 138/2004 (adapted)
➔1 212/2008 Art. 1 and Annex .26

2.060. Where these processing activities are inseparable non-agricultural activities, the product of these processing activities is recorded in the value of the output of the agricultural industry (⌦ see point ⌫ 1.25). Basic agricultural products used as intermediate consumption by these processing activities are not recorded as either output or intermediate consumption. This rule stems from the fact that the two activities (the production of agricultural products and the processing of such products) cannot be distinguished on the basis of accounting documents. Accordingly, the costs of these two types of activity are entered together and their output is assessed as the output of processed products.

(h) Own final consumption

Own final consumption: (8q)

2.061. This includes:

(i) products consumed by the farmers' households which produced them;

(ii) products stemming from the agricultural unit (holding) and used for payment in kind in the form of remuneration paid to holding workers or exchanged for other goods.

2.062. ➔1 Agricultural products processed by the agricultural unit in a separable way (⌦ that is to say, ⌫ giving rise to the formation of a local non-agricultural KAU) and consumed by farmers' households are recorded in the output of the 'Manufacturing' industry (Section C of NACE Rev. 2), as own final consumption. ← By contrast, agricultural household consumption of agricultural products processed in an inseparable way (⌦ that is to say, ⌫ the output of inseparable non-agricultural processing activities), is recorded as own final consumption of these activities (⌦ see point ⌫ 2.080) and included in the output of the agricultural industry.

↓ 212/2008 Art. 1 and Annex .27

2.063. The imputed rental value of the owner-occupied housing unit is not recorded here but in the branch 'Renting and operating of own or leased real estate' (Class 68,20 of NACE Rev. 2). Renting of accommodation is a non-agricultural activity which is always considered to be separable from agricultural activity.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.5(l)

(i) Sales

Sales: (9q)

2.064. This heading covers sales of agricultural products made by agricultural units to other units (agricultural or those of other branches), including sales to storage and intervention centres, with the exception of disposals of fixed assets. It is broken down into domestic sales outside the industry, domestic sales to other agricultural units and sales abroad.

2.065. Consequently, for a given unit, sales correspond to the turnover obtained from the marketing of its output. ➔1 It should be noted that sales of animals classed as fixed assets, which are taken out of the productive herd (exports or slaughterings) are not recorded as sales. ← Animals classed as fixed assets and taken out of the productive herd are transferred into stocks before their sale, but the sales of these animals (slaughterings or exports) appear in the accounts as destocking, seen only in the capital account. The corresponding output had already been imputed as a part of own-account produced fixed capital goods[14] then recorded in the production account.

2.066. Livestock considered to be stocks: the disposal of livestock considered to be stocks to another holding constitutes a sale in accordance with the definition ⌦ set out ⌫ in ⌦ point ⌫ 2.064. This sale may be offset by a removal from stocks if the livestock is recorded as stocks at the start of the reference period (otherwise, only sales are recorded).

2.067. The acquisition of livestock is a stock entry if the products are not resold during the reference period. Acquired livestock, however, cannot be treated as intermediate consumption because, by definition, intermediate consumption goods are destined to disappear (or at least undergo substantial transformation) during the production process. These animals are regarded as work in progress since the livestock production process is not fully terminated (the production process finishes at the time of slaughter). Acquisitions are therefore recorded as stock entries of work (products) in progress and thus recorded as 'negative' sales and not as intermediate consumption. In the case of trading between resident holdings, sales and the corresponding purchases offset each other (except for the costs of transferring

[14] Output for these animals is calculated by adding own-account produced fixed capital goods (= entries less disposals of assets) and sales (= disposals).

ownership)[15]. In view of this special treatment of trade in live animals between agricultural units, there is no intermediate consumption under 'livestock and animal products'[16].

2.068. Livestock classed as fixed assets: trade in fixed-asset livestock between agricultural units is not recorded in sales as defined above but as trade in assets (recorded in the capital account as GFCF of agriculture). In the case of trading between resident holdings, sales and corresponding purchases offset each other (except for the transfer costs).

2.069. Recording of imports of live animals (not intended for immediate slaughter): as in the case of trade between resident holdings, livestock treated as stocks (other than animals for immediate slaughter) and imported during the reference period by agricultural units are recorded as stock entries of work in progress and are therefore deducted from sales. On the other hand, livestock classed as fixed assets (such as breeding animals) and imported as such, should not be deducted from sales.

2.070. Nevertheless, as it is often difficult, in practice, to make relevant distinctions between the different categories of animals on the basis of available sources of EU data (between animals classed as fixed assets and those classed as stocks), all imports are considered to be of animals intended for building up stocks and the value of all imported animals (except those intended for immediate slaughter) is deducted from the value of sales. This method of recording guarantees treatment of external trade in live animals similar to that adopted for calculating gross indigenous production in animal production statistics.

(j) Own-account produced fixed capital goods

Own-account produced fixed capital goods: (10q)

2.071. These only include:

– work done by agricultural units (⌦ for example, ⌫ use of labour, machines and other means of production, including planting stock) for the own-account establishment of plantations such as orchards, vineyards, soft fruit plantations and hop-fields. In general, own-account work on planting orchards and vineyards, etc., is made up of a large number of individual work operations which cannot be added up into specific quantities,

– animals produced in agricultural units and transferred to their fixed capital (⌦ see point ⌫ 2.161). These are animals reared for the output which they supply on a regular basis (mainly breeding livestock, dairy livestock, draught animals, sheep and other animals reared for their wool; ⌦ see point ⌫ 2.203).

(k) Final stocks

Final stocks: (11q)

2.072. These are stocks of finished products or work in progress on the holdings of the industry (⌦ that is to say, ⌫ held by producers) at the end of the reference year.

[15] When valuing trade, the costs involved in the transfer of ownership (trade margins and transport costs) are included in the value of the acquisition. In the case of trading between resident holdings, sales and purchases offset each other except for the transfer costs which are treated, in the calculation of output, as a 'negative sale'.

[16] An identical treatment applies to other agricultural products having the character of stocks.

Stocks at different marketing stages (especially reserves held by dealers and processing firms) as well as intervention stocks should not be listed here.

2.073. Products which are only temporarily stocked and are consumed in a later period within the industry (⌦ for example, ⌫ cereals for feed, seed and planting stock, etc) should also be entered here since the final use of the product is not known at the time of their entry in stocks.

(l) Total uses

Total uses: (12q) (not including intra-unit consumption) = (7q) + (8q) + (9q) + (10q) + (11q) = processing by producers plus own final consumption plus sales plus own-account produced fixed capital goods plus final stocks.

2.074. This entry is the sum of columns 7q to 11q.

(m) Change in stocks

Change in stocks: (12q) = (11q) minus (4q) = additions to stocks (A) minus withdrawals from stocks (W)

2.075. The change in stocks in the industry (excluding stocks at the various marketing stages) during the reference year is measured by calculating the difference between stock entries and withdrawals, or the difference between final and initial stocks. In the latter case other changes in volume and holding gains (net of losses) are to be deducted in the calculation of values (⌦ see point ⌫ 2.180 and following).

(n) Output of agricultural activities

Output of agricultural activities = (6q, animal feedingstuffs) + (7q) + (8q) + (9q) + (10q) + (12q)

2.076. In accordance with the concept of output and the rules for recording intra-unit consumption (⌦ see point ⌫ 2.049 and following), processing of agricultural products (⌦ see points ⌫ 2.059 and 2.060), and own final consumption (⌦ see points ⌫ 2.061, 2.062 ⌦ and ⌫ 2.063), the output of agricultural activities can be depicted as follows:

Resources	Uses	Agricultural output of the agricultural industry
Gross output	Sales (total, excluding trade in animals between agricultural holdings)	X
	Change in stocks (with producers)	X
– Losses	Own-account produced fixed capital goods (plantations yielding repeat products, productive animals)	X
	Own final consumption (of agricultural products)	X

= Usable output	Processing by producers (of agricultural products, separable activities)	X
	Intra-unit consumption: – for the same activity: (seeds, milk for livestock feed, wine grapes, olives for olive oil, hatching eggs)	
	– for a separate activity: crop products used in animal feed (cereals, oilseeds, fodder crops, marketable or not, etc.)	X
	animal by-products used in crop production (slurry, manure)	

↓ 2019/280 Art. 1 and Annex I.5(m)

2.077. The 'total output' concept for measuring the output of agricultural activity includes trade in agricultural goods and services between agricultural units as well as intra-unit consumption of livestock feed products (marketable or not).

↓ 138/2004 (adapted)

3. Output of inseperable non-agricultural secondary activities

2.078. A distinction is made between two types of 'inseparable non-agricultural secondary activities' (⌦ see point ⌫ 1.29):

– 'processing of agricultural products': this group covers activities which are an extension of agricultural activity and in which agricultural products are employed. The processing of agricultural products is the typical activity of this first group,

– 'other inseparable non-agricultural secondary activities': this group covers activities which use the agricultural holding and its means of agricultural production. It is less uniform than the first group.

2.079. In general, these activities include a variety of products (goods and services) whose quantities cannot be added together.

2.080. The product of these activities is either intended for sale, barter, payment in kind, own final consumption (⌦ see point ⌫ 2.062) or kept in stocks.

↓ 2019/280 Art. 1 and Annex I.5(n)

2.081. According to ESA 2010, point 3.82 Research and development (R & D) is creative work undertaken on a systematic basis to increase the stock of knowledge, and use of this stock of knowledge for the purpose of discovering or developing new products, including improved versions or developing new products, including improved versions or qualities of existing products, or discovering or developing new or more efficient processes of production. R & D of a significant size relative to the principal activity is recorded as secondary activity of a local KAU. A separate local KAU is distinguished for R & D where possible, which is not allocated to agricultural industry. For units having also R & D activities, if they cannot be allocated to a separate local KAU and if it is possible to estimate R & D expenditure on agricultural activities, these estimations should be recorded as agricultural output as 'other inseparable non-agricultural secondary activities' (own account production) and as GFCF.

↓ 138/2004

4. Output of the agricultural industry

↓ 2019/280 Art. 1 and Annex I.5(o) (adapted)

2.082. In accordance with the definition of the output of the agricultural industry (⌦ see point ⌫ 1.16), the output of the agricultural industry is made up of the sum of the output of agricultural products (⌦ see points ⌫ 2.076 ⌦ and ⌫ 2.077) and of the goods and services produced in inseparable non-agricultural secondary activities (⌦ see points ⌫ 2.078 to 2.081).

↓ 138/2004

5. Valuation of output

↓ 2019/280 Art. 1 and Annex I.5(p) (adapted)

2.083. Output is to be valued at the basic price. The basic price is the price receivable by the producers from the purchaser for a unit of a good or service produced as output minus any tax (⌦ that is to say, ⌫ taxes on products) payable on that unit as a consequence of its production or sale plus any subsidy (⌦ that is to say, ⌫ subsidies on products) receivable on that unit as a consequence of its production or sale. The basic price excludes any transport charges invoiced separately by the producer. It also excludes holding gains and losses on financial and non-financial assets (⌦ see ⌫ ESA 2010, point 3.44).

2.084. Components of output such as sales, payments in kind, additions to stocks and intra-unit consumed products should be valued at the basic price. Similarly, output for own final use (⌦ that is to say, ⌫ own-account fixed capital goods and own final consumption) should be valued at the basic price of similar products sold on the market. Work in progress and additions to it are valued proportionally to the current basic price of the finished product. If the latter has to be assessed in advance, the calculation should be based on the actual costs incurred plus an amount corresponding to the anticipated operating surplus or mixed income.

2.085. When establishing the EAA according to the 'net' recording system (⌦ see points ⌫ 3.033 and 3.035 to 3.043), the VAT invoiced by the producer is not included when establishing the basic price.

2.086. ➔1 The price obtained by the producer corresponds to the producer price (not including invoiced VAT) as defined in the 2008 SNA, points 6.51 to 6.54 (that is to say, the ex-farm price). 🡸 The basic price can be obtained from the producer price by adding subsidies less taxes (other than VAT) on products. When problems of allocating a tax or subsidy on products to a specific product make it difficult to calculate the basic price, output can be calculated direct at the basic price. In this case it is obtained direct from the value of the producer price (exclusive of invoiced VAT), minus the value of taxes on products (other than VAT) and plus the value of subsidies on products.

2.087. The valuation of output at the basic price makes it necessary to distinguish between taxes (other than VAT) on products and subsidies on products (⌦ see points ⌫ 3.027 and 3.053), on the one hand, and other taxes and subsidies on production (⌦ see points ⌫ 3.044 and 3.058), on the other. Taxes and subsidies on products are not recorded in the generation of income account of the industry (this account only includes other taxes on production and other subsidies on production, ⌦ see point ⌫ 3.055).

2.088. The price of a given item received by producers is not necessarily always the same; it may vary, *inter alia*, according to the type of delivery. For example, the structure, in terms of quality, of goods exported directly by the producer can be different from the structure of the sales intended for national consumption or of domestic sales to other agricultural units. These goods would consequently have a different price. It should be noted that when a producing unit directly exports its output, the receipt or payment of monetary compensatory amounts for the exports must be taken into account in the EAA.

2.089. These general principles of valuation require specific applications for certain products such as seasonal products and wine. These are explained in the Section treating the valuation of changes in stocks (⌦ see points ⌫ 2.186 to 2.201).

C. INTERMEDIATE CONSUMPTION

↓ 2019/280 Art. 1 and Annex I.5(r) (adapted)

(⌦ see ⌫ ESA 2010, points 3.88 to 3.92)

↓ 138/2004

1. Definition

↓ 2019/280 Art. 1 and Annex I.5(s) (adapted)

2.090. Intermediate consumption represents the value of all goods and services used as inputs in the production process, excluding fixed assets whose consumption is recorded as fixed capital consumption. The goods and services concerned are either transformed or used up in the production process (⌦ see ⌫ ESA 2010, point 3.88). In a detailed classification by different categories of items, intermediate consumption shows the interlocking of agriculture with other branches of the economy brought about by inputs. Intermediate consumption is also used as an entry in the calculation of factor intensities (⌦ that is to say, ⌫ the ratio of two factors of production, for example of intermediate consumption and labour input).

↓ 2019/280 Art. 1 and Annex I.5(t) (adapted)

2.091. Intermediate consumption excludes new or existing acquired fixed assets which have been produced in the economy or imported: they are recorded as GFCF (⌦ see point ⌫ 2.110 (c) to (f)). This concerns items which are non-agricultural fixed assets, such as buildings or other structures, machines and equipment, as well as agricultural fixed assets such as plantations and productive animals. The acquisition of non-produced assets such as land is likewise excluded from intermediate consumption. Inexpensive tools used for common operations such as saws, hammers, screwdrivers, spanners, wrenches and other hand tools, small devices such as pocket calculators are recorded as intermediate consumption.

↓ 138/2004 (adapted)

2.092. Intermediate consumption includes goods and services consumed in ancillary activities (⌦ for example, the ⌫ administration of purchases and sales, marketing, accounting, transport, storage, maintenance, etc.). The consumption of these goods and services should not be distinguished from that of goods and services consumed in the course of the main (or secondary) activity of a local KAU.

2.093. Intermediate consumption also includes all expenditure on goods and services which, while benefiting employees, are nonetheless mainly for the benefit of the employer[17] (⌦ for example, the ⌫ reimbursement of employees for travel, separation, removal and entertainment expenses incurred in the course of their duties; expenditure on providing amenities at the workplace).

2.094. In view of the adoption of the concept of industry and local KAU as the basic unit of the EAA, intermediate consumption of the industry includes goods and services provided by one local KAU to another local KAU (for production purposes), even if these units belong to the same institutional unit.

↓ 2019/280 Art. 1 and Annex I.5(u) (adapted)

2.095. Trade in livestock, which is similar to stocks of work in progress (such as piglets and eggs for hatching) and is carried out between agricultural units, and imports of livestock, are not recorded as intermediate consumption (or as any type of output) (⌦ see points ⌫ 2.066 to 2.070).

↓ 138/2004 (adapted)

2.096. Goods and services produced and consumed within the same agricultural unit ⌦ (that is to say, ⌫ produced and used in the same reference period for agricultural production purposes) are not recorded as intermediate consumption unless they also appear in the output of the industry (⌦ that is to say, ⌫ crop products used in animal feed, ⌦ see points ⌫ 2.049 to 2.057; ⌦ and point ⌫ 2.060).

2. Elements of intermediate consumption

(a) Seeds and planting stock

2.097. This heading covers the total consumption of bought-in domestic and imported seed and planting stock for current production and maintaining stocks in vineyards, orchards, and Christmas tree plantations. It includes in particular direct purchases of seed and planting stock from other farmers. However, seed produced and consumed within the same unit in the same reference period is not recorded under this heading (⌦ see point ⌫ 2.052).

2.098. It should be noted that intermediate consumption of field crop and vegetable seed mainly corresponds to: (i) first generation seed purchased by producers for propagation; and (ii) certified seed bought by agricultural holders for crop production.

(b) Energy; lubricants

2.099. This heading covers electricity, gas and all other solid and liquid fuels and propellants. It should be noted that only the consumption of energy on agricultural holdings is to be shown, and not consumption in farmers' households.

(c) Fertilisers and soil improvers

2.100. Soil improvers include, for example, lime, peat, sludge, sand and synthetic foams.

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[17] This is generally the case if production is promoted, and in some cases only made possible, by this expenditure by the employer.

(d) Plant protection products and pesticides

2.101. These include herbicides, fungicides, pesticides and other similar inorganic and organic substances (⌦ for example, ⌫ poisoned bait).

(e) Veterinary expenses

2.102. Medicines which are invoiced separately from the veterinary surgeon's fee should be recorded here (medicines administered directly by the veterinary surgeon are recorded with his fee) and veterinary costs.

(f) Animal feedingstuffs

2.103. This heading covers all bought-in domestic and imported feedingstuffs, whether processed or not, including those obtained direct from other farmers. Crop products used in animal feed produced and used in the same reference period on the same agricultural holding are also recorded and entered under a subheading of the 'animal feedingstuffs' heading as intra-unit consumption (⌦ see point ⌫ 2.057). They are also recorded in output.

2.104. The costs incurred in the preparation and preservation of feedingstuffs (⌦ for example, ⌫ energy costs and costs for chemical preservatives, etc.) must be broken down by type of cost and not combined with the feedingstuffs themselves.

(g) Maintenance of materials

2.105. This heading includes:

– purchases of goods and services for maintenance (⌦ that is to say, ⌫ regular replacement of individual damaged or broken parts) and repairs required to keep capital goods in usable condition (⌦ see points ⌫ 2.127 ⌦ , 2.128 and ⌫ 2.129),

– purchases of crop protection equipment (excluding preparations for plant protection and pest control, ⌦ see point ⌫ 2.101), such as detonators, anti-hail protection, anti-frost smoke, etc.

(h) Maintenance of buildings

2.106. This heading covers purchases of materials (cement, bricks, etc.), labour costs or overall costs incurred by farmers for maintaining agricultural buildings or other structures (except housing structures) (⌦ see points ⌫ 2.127 ⌦ , 2.128 and ⌫ 2.129).

(i) Agricultural services

2.107. These agricultural services (which constitute the hire of machines and equipment with the corresponding labour) are an integral part of agriculture (⌦ see points ⌫ 1.79 to 1.88) and are recorded as intermediate consumption and also entered under 'output'.

↓ 909/2006 Art. 1 and Annex I.2

(j) Financial intermediation services indirectly measured (FISIM)

↓ 2019/280 Art. 1 and Annex I.5(v) (adapted)

2.108. In accordance with the convention of ESA 2010, the value of financial intermediation services indirectly measured (FISIM) used by the agricultural industry should be recorded as intermediate consumption of the agricultural industry (⌦ see ⌫ ESA 2010, Chapter 14).

↓ 909/2006 Art. 1 and Annex I.3

(k) Other goods and services

↓ 138/2004

2.109. These other goods and services include:

↓ 2019/280 Art. 1 and Annex I.5(w) (adapted)

(a) rental paid, either directly or as a component of a tenancy agreement, for use of non-residential buildings and other capital assets (whether tangible or intangible) such as the hire of machines and equipment without operating staff (⌦ see point ⌫ 1.23) or computer software. However, if no distinction can be made between the renting of non-residential buildings by a local agricultural KAU and the renting of land, the whole item is recorded as renting of land in the enterprise's income account (⌦ see point ⌫ 3.082);

↓ 138/2004

(b) fees for workers' medical examinations;

(c) fees for agricultural consultants, surveyors, accountants, tax consultants, lawyers, etc.;

↓ 2019/280 Art. 1 and Annex I.5(w)

(d) purchases of services of market research and advertising, expenditure on staff training and similar services;

↓ 138/2004 (adapted)

(e) expenditure on transport services: this includes reimbursement of employees for travel, separation and removal costs incurred in the course of their duties, primarily for the employer's benefit, and the amounts paid by the employer to

independent enterprises which provide transport for employees (except for transport between home and the place of work; ⌦ see point ⌫ 2.093, ⌦ point ⌫ 2.110(b) and ⌦ point ⌫ 3.016) as well as the transport of goods for fairs and exhibitions. If, on the other hand, transport is provided by the staff and the employer's own transport, the costs should be recorded under appropriate headings.

Since purchases of goods are to be valued at the purchaser price and sales at the basic price (⌦ see points ⌫ 2.111 and 2.112, 2.083), the cost of transport of goods is not normally indicated separately. Transport costs included in sales are considered to be invoiced separately. In the case where the producer engages a third party to transport the goods to the purchaser, the transport costs appear as neither intermediate consumption, nor output in the EAA. In the case where ⌦ it is ⌫ the producer ⌦ who ⌫ transports the goods , this is considered a non-agricultural activity, for which the costs should be recorded appropriately, if the activity is inseparable. Finally, this heading includes expenditure incurred under non-agricultural secondary activities concerning transport, trade and warehousing for third parties;

(f) postal and telecommunications costs;

↓ 2022/590 Art. 1.4 and Annex I.4 (adapted)

(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, ⌦ that is to say, ⌫ 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 ⌦ point ⌫ 3.063, footnote 1);

↓ 138/2004

(h) stud fees;

↓ 909/2006 Art. 1 and Annex I.4

(i) billed bank charges (but not interest for bank loans);

↓ 138/2004

(j) subscriptions, fees for membership of professional associations such as chambers of agriculture, chambers of commerce and agricultural trade unions;

(k) subscriptions to agricultural cooperatives;

(l) costs of dairy tests, shows and entries in pedigree registers;

(m) expenditure on artificial insemination and castration;

(n) payments for the use of non-produced intangible assets such as patented assets, trade marks, copyright, milk quotas or other production rights, etc. Purchases of these non-produced intangible assets, on the other hand, are recorded in the capital account;

↓ 2019/280 Art. 1 and Annex I.5(w) (adapted)

(o) payments made to public bodies for the purpose of obtaining licences or permits to carry out commercial or professional activities, if the permits are subject to a thorough scrutiny for regulatory purposes (unless the charges are disproportionate to the benefits of the services concerned, ⌦ see point ⌫ 3.048(e), and ESA 2010, point 4.80(d));

(p) purchases of inexpensive small tools, working clothing, spare parts and durable equipment used to perform relatively simple operations (ESA 2010, point 3.89 (f) (1) and 2008 SNA, point 6.225);

(q) fees for short-term contracts, leases and licences recorded as non-produced assets; this excludes the outright purchase of such non-produced assets.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.5(x)
➔2 2019/280 Art. 1 and Annex I.5(y)

(k) Items not included in intermediate consumption

2.110. Intermediate consumption, does not include:

(a) goods and market services which production units provide to their employees at no cost or at a reduced rate, in so far as this expenditure is clearly and primarily for the benefit of the employees. The value of these goods and services forms part of compensation of employees (⌦ see point ⌫ 3.018);

(b) travel allowances paid by the employer in cash to ⌦ the employer's ⌫ employees; these are regarded as an element of compensation of employees (the employee then uses this money to pay for transport between the employee's home and place of work) (⌦ see point ⌫ 3.018(c)). Likewise, payments made by the employer direct to a transport enterprise for the collective transport of workers (for travel between home and the place of work) count as compensation of employees. These services such as transport from home to work or parking facilities have some of the characteristics of intermediate consumption. ➔1 Nonetheless, employers are considered to need this type of service to attract and keep their employees (which they would normally have to pay for themselves anyway) and not due to the needs of the production process itself (⌦ see ⌫ 2008 SNA, point 7.51); ←

(c) purchases of farm buildings and movable property (⌦ that is to say, ⌫ capital goods whose normal period of use is over one year); these acquisitions are considered to be GFCF (⌦ see point ⌫ 2.162);

(d) financial leasing payments made for the use of fixed assets for agriculture do not constitute purchases of services but transactions to be entered partly under interest (in the entrepreneurial income account) and partly as reimbursement of the capital (in the financial account) (⌦ see point ⌫ 2.123);

(e) expenditure on restoration (for maintenance, ⌦ see points ⌫ 2.105 and 2.106) of fixed capital goods (restoration of roofs, gutters, electrical and heating installations in farm buildings) and expenditure on the improvement and repair of capital goods, which are intended to extend their normal service life or increase their productivity; this expenditure is regarded as GFCF since it goes well beyond what is necessary to maintain fixed assets in working order (⌦ see points ⌫ 2.127 ⌦ , 2.128 and ⌫ 2.129);

(f) ➔1 purchases of services connected with the acquisition of ownership of land, buildings and other existing fixed capital goods, such as fees for intermediaries, solicitors, surveyors, engineers, etc. as well as fees for entries in the land register (⌦ see ⌫ ESA 2010, point 3.133). ➔ This is regarded as forming part of GFCF (⌦ see points ⌫ 2.132 and 2.133);

(g) goods and services produced and consumed within the same unit in the same reference period (except for certain products, ⌦ see points ⌫ 2.056, 2.103 ⌦ and ⌫ 2.107). These goods and services are ⌦ also ⌫ not recorded as output;

(h) rent paid for the use of land listed under 'rent' (⌦ see point ⌫ 3.080);

(i) expenditure on the use of dwellings; this is final consumption (accounts for households) and is not shown in the EAA;

(j) wear of capital goods, which comes under consumption of fixed capital (⌦ see point ⌫ 3.099);

(k) net insurance premiums (⌦ see point ⌫ 2.109(g));

(l) insurance premiums for personal injury and contributions to sickness and working accident insurance schemes; these are divided between distributive transactions and final consumption (accounts for households);

(m) water rates paid purely as a tax and unrelated to the quantities of water consumed;

(n) the purchase of services from public bodies under certain circumstances (⌦ see point ⌫ 3.048(e)).

3. Valuation of intermediate consumption

2.111. Products used for intermediate consumption should be valued at the purchaser prices for similar goods and services applicable at the time of their insertion in the production process.

2.112. The purchaser price is the price the purchaser actually pays for the products, at the time of purchase. It includes taxes less subsidies on products (but excluding deductible taxes like VAT on the products). ➔2 The purchaser price also includes any transport charges paid separately by the purchaser to take delivery at the required

time and place; after deductions for any discounts for bulk or off-peak purchases from standard prices or charges; excluding interest or service charges added under credit arrangements; excluding any extra charges incurred as a result of failing to pay within the period stated at the time the purchases were made (ESA 2010, point 3.06). ←

2.113. Unlike in other branches of the economy, subsidies relating to intermediate consumption are important in agriculture. Their purpose is to reduce the cost of intermediate consumption. When these subsidies are classed as subsidies on (non-agricultural) products, they reduce the value of intermediate consumption, which is recorded at the purchaser price (whether they are paid to intermediate consumption suppliers or agricultural producers).

2.114. If goods or services are imported direct by production units, the purchaser price used should include all import duties, non-deductible VAT, and monetary compensatory amounts (receipts or payments).

2.115. Intermediate consumption is valued exclusive of deductible VAT. Deductible VAT is calculated for all purchases made by agricultural units, whether subject to VAT under the standard or the flat-rate system. The difference between the deductible VAT which agricultural units under the flat-rate system could have deducted, if they had been subject to the standard VAT scheme, and the flat-rate compensation represents VAT over-compensation or under-compensation. This is recorded under other subsidies on production or other taxes on production respectively (⌦ see points ⌫ 3.041 and 3.042).

D. GROSS CAPITAL FORMATION

↓ 2019/280 Art. 1 and Annex I.5(aa) (adapted)

(⌦ see ⌫ ESA 2010, points 3.122 to 3.157)

↓ 2019/280 Art. 1 and Annex I.5(bb)

2.116. Gross capital formation comprises:

- GFCF (P.51g),
- changes in inventories (P.52),
- acquisitions less disposals of valuables (P.53).

↓ 138/2004

2.117. Since the EAA are accounts drawn up in order to depict flows generated by units within their production function, only GFCF and changes in stocks are dealt with below.

↓ 2019/280 Art. 1 and Annex I.5(cc) (adapted)

2.118. Gross capital formation is measured gross of consumption of fixed capital (P.51c).

Net capital formation (P.51n) is obtained by deducting consumption of fixed capital from gross capital formation. Fixed capital consumption is the value of the depreciation of fixed capital goods as a result of normal wear and tear in the course of the production process (⌦ see point ⌫ 3.099).

↓ 2019/280 Art. 1 and Annex I.5(dd)

1. Gross fixed capital formation (GFCF)

↓ 138/2004

(a) Definition

↓ 2019/280 Art. 1 and Annex I.5(ee) (adapted)

2.119. GFCF consists of resident producers' acquisitions, less disposals, of fixed assets during a given period plus certain additions to the value of non-produced assets realised by the productive activity of producer or institutional units (ESA 2010, points 3.125 to 3.129). Fixed assets are produced assets used in production for more than one year (⌦ see ⌫ ESA 2010, point 3.124 and Annex 7.1).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.1(a)

(b) Considerations for the national economy as a whole

2.120. The GFCF of a national economy is understood to mean the proportion of the gross domestic product (GDP) produced during the reference year which is intended to be used for a period of more than one year as a means of production in the production process (as distinct from the final consumption of private or public households, exports and changes in stocks). Consequently, goods which, although produced sometime in the past and therefore included in the national product, are put to a different use in the reference period, are not included in the GFCF of a national economy. A change of use or ownership does not imply that such goods become part of the domestic product a second time and in no way changes the total mass of fixed capital of the national economy as a whole. The inclusion of such transactions is, however, important in analyses by homogenous branch, industry or sector.

2.121. If a change in ownership results in a different use (⌦ that is to say, ⌫ no longer as capital assets), there is a reduction in the capital assets of the national economy. The commonest instances of this are motor vehicles which households buy secondhand from producer units, shipping vessels which are sold secondhand to other countries, and also capital goods which have been broken up and put to some intermediate use. Since the new use in these cases forms part of the national product (final consumption, export or any other use depending on the type of goods produced from the scrap), the GFCF must be reduced as a result. This is why the ➔1 ESA 2010 ← uses the concept of net acquisitions of existing produced goods for calculating

GFCF: this heading allows capital disposals, ⌦ that is to say, ⌫ reductions in fixed capital to be taken into account

2.122. It is possible for net acquisitions of existing goods to be positive, in other words, to represent increases in the capital assets of the economy as a whole. This is the case, for example, when secondhand vehicles which have already been listed as final consumption in the national product are bought for use as fixed capital. Since sales of existing investment goods exceed purchases, net acquisitions are negative for the national economy as a whole. If, however, the GFCF is broken down by user branch, net acquisitions can be positive for some branches.

(c) Transfer of ownership criterion

↓ 2019/280 Art. 1 and Annex I.5(ff) (adapted)

2.123. The determination of the GFCF of sectors or branches of the economy is based on the criterion of ownership (acquisition, disposal) and not on that of the use of the goods. It should be noted that fixed assets acquired by financial leasing (but not those simply on hire) are treated as assets of the lessee if the lessee is a producer) and not of the lessor, who keeps a financial asset equivalent to a notional claim (⌦ see point ⌫ 2.110(d) and Chapter 15 of the ESA 2010 on the distinction between the different forms of hire of durable goods) ⌦ [18] ⌫.

↓ 138/2004
→1 2019/280 Art. 1 and Annex I.5(gg)

2.124. →1 Application of the ownership criterion depends on the statistical system on the basis of which the GFCF is calculated. ← If it is data from purchasers, there will in theory be no difficulties (apart from the practical difficulty of recording all the investors). Often, however, (and this is particularly true of agriculture), it is information from producers of capital goods on their output or sales that is used as the basis for calculations. Apart from those cases where it is not clear whether a product belongs under the capital goods heading or not, it is also difficult to determine the actual purchaser since the nature of the capital goods gives only an indication of who the user is. In agriculture, therefore, there is the risk that capital goods will also be recorded which have not been acquired by agricultural holdings but by commercial enterprises for the purpose of hiring without operating staff.

[18] Leasing differs from simple hiring in that the risks and advantages of ownership in leasing are transferred de facto, but not *de jure*, from the lessor to the lessee (the user of the asset). The ESA ⌦ 2010 ⌫ takes account of the economic situation of leasing by considering, for its recording, that the lessor provides a credit to the lessee which allows the latter to purchase a durable good and to become its de facto owner. Leasing is thus regarded as a special form of investment financing.

(d) Acquisitions

↓ 2019/280 Art. 1 and Annex I.5(hh) (adapted)

2.125. Acquisitions of fixed assets comprise new or existing fixed assets which have been acquired (purchased, acquired in barter transactions, received as capital transfers in kind or acquired as a financial lease), fixed assets produced and retained for the producer's own use, major improvements to fixed assets and to non-produced tangible assets, natural growth in agricultural assets (livestock and plantations) and costs associated with the transfer of ownership of non-produced assets (⌦ see ⌫ ESA 2010, point 3.125 (a)).

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.5(jj)

2.126. →1 The purchase or production for own account of a set of durable goods needed for an initial installation constitutes fixed capital formation. ← The stock of bottles of a brewery or wine-producing enterprise (excluding non-returnable bottles) for example, constitutes a mass of goods to be recorded as assets, although the value of each bottle is negligible. The same applies to seats and tables, crockery and cutlery of restaurants and the tools of an enterprise. The initial installation of these goods constitutes fixed capital formation: nevertheless, no fixed capital consumption is calculated in these cases because it is assumed that once this installation has been made, it will always keep the same value as a result of constant purchases of replacement items to make up for those which have been lost or become unusable. Current replacement purchases are recorded as intermediate consumption. This rule, which in theory is clear, is sometimes difficult to apply in practice as statistical data on production or sales do not give a clear idea of whether the goods in question have been bought for an initial installation or to replace existing items.

2.127. Goods and services incorporated into existing fixed capital goods for the purpose of improving them, rebuilding or reconstructing them, prolonging their useful life or increasing their productivity, are recorded with the capital goods into which they are incorporated. This work is considered to be acquisition of new fixed assets. In principle, this heading includes all goods and services incorporated into fixed capital goods which go well beyond the scope of current maintenance and repair. Current maintenance is taken to mean all services which, in comparison with the normal lifetime of the capital goods, must be repeatedly provided at relatively short intervals in order to maintain the goods in serviceable condition. It covers, for example, the replacement of fast-wearing components of capital goods, external and internal painting, etc.

2.128. The size of the sums spent on this maintenance is in no way a criterion for determining whether a service creates an asset or represents current maintenance, since in the case of high-value capital items, even services for current maintenance may be very costly (⌦ see point ⌫ 2.110(e)). Strictly speaking, the allocation of services performed on existing fixed capital goods either to the 'current maintenance' or 'GFCF' category should be determined by the interval which will elapse before the service has to be repeated, ⌦ for example, ⌫ the replacement of parts which

normally wear out within one year, such as the tyres of a truck, counts as current maintenance, whereas the replacement of an engine constitutes fixed capital formation, not because the value is higher but because an engine does not normally have to be replaced annually but only after several years. Recording a service of this kind under the assets heading (⌦ that is to say, ⌫ treatment as fixed capital formation and not as current maintenance) makes it possible to distribute the value uniformly over the entire period of use through the device of fixed capital consumption.

↓ 2019/280 Art. 1 and Annex I.5(kk) (adapted)

2.129. The 2008 SNA specifies that improvements made to fixed assets should be determined either by the magnitude of the changes in the characteristics of the fixed assets — ⌦ that is to say, ⌫ by major changes in their size, shape, performance, capacity or anticipated service life — or by the fact that improvements are not the kinds of changes that are observed to take place routinely in other fixed assets of the same kind, as part of ordinary maintenance and repair programmes (⌦ see ⌫ 2008 SNA, points 10.43 and 10.46).

↓ 138/2004

(e) Disposals

↓ 2019/280 Art. 1 and Annex I.5(ll) (adapted)

2.130. Disposals of fixed assets comprise the sale, demolition, scrapping or destruction of fixed assets by their owner, or their surrender in barter or as capital transfers in kind (⌦ see ⌫ ESA 2010, point 3.125 (b) and point 3.126). These disposals should normally lead to a change in ownership and have a direct economic purpose (therefore fixed assets which are demolished, scrapped or destroyed by their owner in order to be put to no further economic use are not included in these disposals) (⌦ see ⌫ 2008 SNA, point 10.38). However, some disposals may be kept within the same institutional unit, as in the case of animals slaughtered by a farmer and consumed by his family.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.5(mm)

(f) Valuation of gross fixed capital formation

2.131. GFCF is valued at purchaser prices (including the costs of transferring ownership, installation and other transfer charges) or, when produced on own account, it is valued at the basic prices of similar fixed assets (the basic price can be obtained from the sum of the costs incurred). Disposals should be recorded at the sales price, which should correspond to the purchaser price less the costs incurred in the transfer of ownership of assets, installation and transfer charges (⌦ see point ⌫ 2.130).

(g) Costs of transfer of ownership

2.132. The costs of transfer of ownership of assets constitute GFCF by the acquirer, even if some of the costs are paid by the seller. They comprise the expenditure incurred in order to take possession of the assets (installation and transport charges, etc.), fees and commissions of intermediaries (solicitors, experts, etc.) and taxes to be paid on intermediary services used in the transfer of ownership of assets.

2.133. The GFCF of the acquirer comprises the value of the goods acquired (exclusive of transfer costs) plus the total transfer costs involved in the acquisition. Conversely, the GFCF of the seller only includes the value of the goods sold (exclusive of transfer costs)[19]. In the case of non-produced assets (such as land, or patented assets such as production rights) which are not included in GFCF, these costs must be separated from the acquisition/disposal of these assets and recorded under a different heading as GFCF of the acquirer.

(h) GFCF and change in the value of assets

2.134. The balance sheet, which provides an itemised list of the values of the assets held and commitments entered into, provides information on the different components of the change in the value of assets. ➔1 As defined in the balance sheets (⌦ see ⌫ ESA 2010, points 7.12 and 7.13) the change in the value of an asset between the end and beginning of an accounting period can be described as follows: 🡐

Value of assets at the end of the accounting period	
– Value of assets at the beginning of the accounting period =	GFCF
	– Consumption of fixed capital
	+ Other volume changes
	+ Nominal holding gains (net of losses)

2.135. Nominal holding gains (net of losses) correspond to holding gains (net of losses) accumulated during the period considered and resulting from a change in the price of the asset whose economic and physical (quantitative and qualitative) characteristics remain unchanged over the period concerned. These changes are recorded in the revaluation account.

2.136. The other changes in the volume of assets are flows which make it possible to record the discovery, deterioration or depletion of natural assets as well as the consequences of exceptional events which may modify the benefit drawn from assets. As far as the assets of the agricultural industry are concerned, changes in volume may be put into three main categories:

– exceptional losses or catastrophic losses (earthquakes, wars, drought, epidemics, etc.),

[19] As a direct consequence of this method, the costs associated with trade in 'fixed assets' livestock between units should be recorded under the GFCF of the acquirer.

– the margin between the anticipated depreciation of the assets (measured by the consumption of fixed capital) and the depreciation actually determined (due to unforeseen obsolescence, damage, deterioration and accidental events leading to higher depreciation than anticipated),

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↓ 2022/590 Art. 1.4 and Annex I.5 (adapted)

– changes in classification or structure of fixed assets: ⌦ for example, ⌫ changes in the economic purpose of agricultural land, dairy livestock intended for meat production ⌦ see point ⌫ 2.149, footnote 1) or agricultural buildings which have been altered for private or other economic use.

↓ 138/2004 (adapted)

2.137. GFCF and consumption of fixed capital (⌦ see points ⌫ 3.098 to 3.106) are therefore not the only elements to take into account when analysing the change in the value of assets.

(i) Elements of GFCF

↓ 2019/280 Art. 1 and Annex I.5(oo) (adapted)

2.138. The ESA 2010 distinguishes between several elements which should be recorded as GFCF (⌦ see ⌫ ESA 2010, point 3.127):

– dwellings,

– other buildings and structures including major improvements to land,

– machinery and equipment, such as ships, cars and computers

– weapons systems,

– cultivated biological resources, ⌦ for example, ⌫ trees and livestock

– costs of ownership transfer of non-produced assets like land, contracts, leases and licences,

– R & D, including the production of freely available R & D,

– mineral exploration and evaluation,

– computer software and databases,

– entertainment and literary or artistic originals,

– other intellectual property rights.

↓ 2019/280 Art. 1 and Annex I.5(pp)

2.139. For the EAA, a distinction is made between the following types of elements of GFCF:

– plantations yielding repeat products,

- fixed asset livestock,
- fixed assets other than agricultural assets:
  - machines and other capital goods,
  - transport equipment,
  - farm buildings (non-residential),
  - other structures with the exception of land improvement (other buildings and structures, etc.),
  - other (computer software, etc.),
- major improvements to land,
- costs associated with the transfer of ownership of non-produced assets such as land and production rights,
- R & D, covering research and development from specialised units and research and development for own production.

↓ 138/2004

2.140. GFCF in agricultural assets concerns two types of assets (plantations and animals) which are used repeatedly and continually for the production of products such as fruit, rubber, milk, etc.: fruit trees, vines, hop fields, soft fruit plantations and asparagus beds. Christmas tree plantations (which only provide a finished product once) are not fixed assets, just as cereals and vegetables are not. Animals which serve as fixed assets include, for example, breeding animals, dairy cattle, sheep reared for their wool and draught animals (animals for slaughter, including poultry, are not fixed assets).

↓ 2019/280 Art. 1 and Annex I.5(qq)

(j) Plantations yielding repeat products

↓ 2019/280 Art. 1 and Annex I.5(rr) (adapted)

2.141. According to ESA 2010 (point 3.125) GFCF in plantations corresponds to the value of acquisitions less disposals of natural assets yielding repeat products (such as fruit trees) which have reached maturity, plus the natural growth of such natural assets until they reach maturity (⌦ that is to say, ⌫ generate a product), during the accounting period concerned.

↓ 138/2004

2.142. This definition of GFCF corresponds to:

- expenditure on new plantations (new or renewed) during the accounting period, including amounts spent on maintaining young plantations during the accounting period (during the first three years),

– the increase in the intrinsic value of plantations up to their maturity,

– the costs associated with transfer of ownership in exchanges, between agricultural units, of plantations which have reached maturity.

2.143. The first two elements of GFCF in plantations represent own-account agricultural output of GFCF.

↓ 2019/280 Art. 1 and Annex I.5(ss)

2.144. Disposals of plantations (recorded as negative GFCF) may take two forms: they may be sales of standing plantations to other (agricultural) units, in which case only the costs associated with the transfer of ownership are entered in the EAA. The other possibility is for the plantations to have been felled. In this case, however, according to the general definition of disposals, felled plantations must have a direct economic use; in other words, a counter-entry is required in the form of a use in goods and services (such as a sale to an enterprise specialising in the sale of timber[20]). In this second case, disposals of plantations to be recorded as negative GFCF should represent a modest amount.

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)

2.145. Consequently, in the majority of cases (⌦ that is to say, ⌫ except in the second case set out in point 2.144), the value of the grubbings must not be deducted from the value of the investments in plantations. Investments intended for renewing existing plantations should be treated as investments and not as routine maintenance costs.

2.146. The treatment of grubbings of plantations should be analysed in relation to the calculation of consumption of fixed capital. In accordance with the →1 ESA 2010 ←, there is consumption of fixed capital in the case of plantations corresponding to the depreciation of the plantations when they have reached maturity. Plantation grubbings[21] should therefore be interpreted as follows:

– grubbings carried out at the end of the normal growing life of plantations correspond to plantations withdrawn from assets. These grubbings are taken into account in the consumption of fixed capital throughout the productive life of the plantations,

– 'exceptional' grubbings are grubbings carried out before the end of the normal growing life of plantations for various (economic, strategic, etc.) reasons. They should be interpreted as the difference between the real (effective) depreciation and normal depreciation measured by the consumption of fixed capital. This depreciation surplus should be recorded in the 'other changes in volume of assets' account (accumulation accounts) which is not included in EAA.

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20 In this case, the activity of felling the plantation and selling the timber come under forestry activity.

21 It should be noted that the cost of the grubbing service which may be invoiced by a grubbing company constitutes intermediate consumption of a service.

2.147. The change in the value of plantations over the accounting period therefore comprises the following four components (⌦ see point ⌫ 2.134):

– GFCF, which corresponds to the difference in value between acquisitions and disposals during the reference period, as defined in ⌦ points ⌫ 2.141 to 2.145,

– consumption of fixed capital, which measures the depreciation of plantations, as defined in ⌦ point ⌫ 2.146,

– other changes in 'volume' which take account of the effects of unforeseen events on plantations (such as exceptional grubbings) and which are recorded in the 'other changes in volume of assets' account (⌦ see ⌫ the definition in ⌦ points ⌫ 2.136 and 2.146),

– holding gains (net of losses), which measure the changes in value due to changes in price during the accounting period and which are recorded in the revaluation account of the ➔1 ESA 2010 ⬅ accumulation accounts (⌦ see ⌫ the definition in ⌦ point ⌫ 2.135).

🡻 2019/280 Art. 1 and Annex I.5(tt) (adapted)

2.148. Work in cultivated crop assets, ⌦ that is to say, ⌫ plantations, is recorded either as sales, by enterprises specialising in such kind of agricultural contract work (with soil preparation, supply of machines, plant, labour, etc.), or as output of own-account produced fixed capital goods (⌦ see point ⌫ 1.73).

🡻 138/2004
➔1 2019/280 Art. 1 and Annex I.1(a)

(k) Fixed asset livestock

2.149. GFCF for livestock corresponds to the following elements:

– the annual growth of livestock (until they reach maturity);

– livestock acquisitions (imports) less disposals (slaughterings[22] and exports);

– the costs associated with the transfer of ownership incurred in trade between agricultural units[23].

2.150. In accordance with the ➔1 ESA 2010 ⬅, GFCF for livestock is a measure of the difference between livestock acquisitions (natural growth and imports) over the year,

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[22] The treatment of sales of livestock for slaughter (that is to say, by abattoirs or the farmer, including all sales to non-agricultural units for economic uses other than slaughter) as disposals of fixed assets constitutes a simplification of the accounting procedure for recording the disposal of fixed assets whose economic use has changed. 'Fixed asset' livestock are in fact converted into stocks by recording a flow entitled 'other change in volume' (see point 2.136) entered in the 'other changes in volume of assets' account. They are only sold in the form of stocks, the sale then constituting a withdrawal from stocks and not a disposal of assets.

[23] In as much as the sale and purchase occurred during the same accounting period. Otherwise, a disposal (for the period in which the sale occurred) and an acquisition (for the period in which the purchase occurred) are recorded.

including those resulting from own-account production, and livestock disposals (for slaughter[24], export or any other final use), to which is added the cost of transfer of ownership[25]. GFCF for livestock occurs throughout the animal's life. To begin with, the GFCF mainly consists of the natural growth of the animal. When it reaches the age of maturity, the GFCF is mainly measured by way of disposals (sales for slaughter or export). Imports, exports and costs associated with the transfer of ownership are components of GFCF for livestock which are likely to occur throughout the animal's useful life. The natural growth of livestock (and not the GFCF as a whole) constitutes own-account agricultural production of fixed assets in livestock.

↓ 2019/280 Art. 1 and Annex I.5(uu) (adapted)

2.151. Measuring the GFCF for livestock only constitutes one element of the change in the value of assets. In fact, GFCF for livestock can only be measured via the change in the number of livestock valued at the average price for the calendar year for each livestock category (quantitative method), if the following conditions are met:

– no nominal holding gains or losses (⌦ that is to say, ⌫ a regular trend in prices and livestock population numbers),

– no other changes in volume (⌦ that is to say, ⌫ no losses due to natural disasters and no changes in classification, etc.),

Another method of calculation (direct method) consists of measuring the flows of entries and withdrawals for each livestock category, at the corresponding prices: apart from acquisitions and disposals, this method has to take into account entries (in particular births) and withdrawals on the holdings.

↓ 138/2004
➔1 2019/280 Art. 1 and Annex I.5(vv)

2.152. As a general rule, therefore, GFCF for livestock cannot be measured via the difference between the livestock values at the end and beginning of the accounting period. The rule for calculating the GFCF for livestock depends directly on the method adopted for recording and measuring the three elements of the change in the value of livestock (other than GFCF), and in particular the consumption of fixed capital element. ➔1 This is a deviation from the ESA 2010. ←

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24 Including slaughterings for own final consumption or payment in kind.

25 Trade in breeding livestock between farmers is not recorded in the accounts. This is also the case if the trading is carried out via agents (if the purchase and sale occurred in the same period). However, the cost of transfer of ownership (agents' services, trade margins, transport costs, etc) must be included in the value of the GFCF for livestock.

↓ 2019/280 Art. 1 and Annex I.5(ww) (adapted)

2.153. In the ⌦ 2008 ⌫ SNA, theoretically, consumption of fixed capital should be calculated for livestock[26]. In fact, consumption of fixed capital for livestock corresponds to a measurement of the anticipated decline in productivity of livestock when used for production purposes, a reduction which in turn is reflected in the updated value of future income from this livestock. However, in view of the practical difficulties in evaluating consumption of fixed capital (the definition of the calculation parameters are very complex, ⌦ see points ⌫ 3.105 and 3.106), no consumption of fixed capital should be calculated for productive livestock.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.1(a)

2.154. GFCF for livestock may be measured by various methods. By using the perpetual inventory method, each of the GFCF elements defined in ⌦ point ⌫ 2.149 (natural growth of livestock, imports, sales for slaughter and exports, costs associated with the transfer of ownership) can be valued very strictly. Nevertheless, it requires numerous data (such as the prices of productive livestock throughout their useful life). The same is true of methods based on the livestock production cycle. A simpler method therefore needs to be adopted, even if it is less strict.

2.155. The recommended method employs an indirect calculation approach[27]. It is based on calculating the change in the number of livestock and on the following two assumptions:

– livestock prices are regular and normally predictable, so that the average annual price can be used for valuing quantities whilst excluding from them holding gains/losses,

– exceptional losses can be estimated (in quantities and prices).

2.156. The measurement of GFCF is made up of the sum of the following elements:

GFCF =	Change in the number of livestock between the end and beginning of the accounting period valued at the average annual price P
	+ Culling discount
	+ Other productive livestock losses
	+ Costs associated with the transfer of ownership

2.157. The term ‘culling discount’ refers to the difference, at the time of their withdrawal from productive livestock, between the value of the livestock valued as productive animals (at what could be called a ‘capital’ price) and the value of the same livestock

[26] The 2008 SNA (point 10.94), unlike the ESA 2010 (point 3.140), considers that consumption of fixed capital should be calculated for livestock.

[27] Any other method leading to equivalent results may be used.

valued as animals intended for slaughter ⌦ (that is to say, ⌫ at the slaughterhouse selling price).

2.158. The term 'other losses of productive livestock' comprises two types of losses:

– exceptional losses in productive livestock which have become mature,

– the value of livestock kept in production until the end of their life (natural death).

2.159. The value of losses to be recorded in the calculation of GFCF corresponds to the difference between the value of livestock at the price prevailing at the start of the period and the disposal value of the animals. These disposals are valued at the selling price of animals which are slaughtered (⌦ that is to say, ⌫ for sale or own final consumption) or can have a zero value if they have no economic use (⌦ for example, ⌫ if they are disposed of, etc.).

2.160. The terms 'other losses of productive livestock' and 'culling discount' correspond to flows which are recorded in the 'other changes in the volume of assets' account of the balance sheet. They provide a link between the different components of the change in the value of assets and the GFCF, and ensure conformity with the ➔1 ESA 2010 ←. Ignoring them would result in the real level of GFCF for livestock being underestimated.

2.161. The estimation of own-account production of fixed capital in livestock, which corresponds to the natural growth of animals, is derived from the definition of the GFCF for livestock set out in ⌦ point ⌫ 2.149 applied to categories of animals which are not yet fully mature:

Own-account production = GFCF + disposals (slaughterings and exports) — acquisitions (imports)[28] — (cost of transfer of ownership).

↓ 2019/280 Art. 1 and Annex I.5(xx)

(l) Fixed assets other than agricultural assets

↓ 2019/280 Art. 1 and Annex I.5(yy)

2.162. Fixed assets other than agricultural assets (plantations and livestock) comprise the following elements:

– machines and other capital goods,

– transport equipment,

– farm buildings (non-residential),

– other (other buildings and structure, computer software, etc.).

[28] This deduction corresponds to the theoretical case where the imports of productive animals are recorded as GFCF. In practice all animals imported by the agricultural industry are treated as changes in stocks (see point 2.205).

↓ 138/2004 (adapted)

2.163. GFCF corresponds to the acquisition of these assets (new assets produced or imported during the accounting period, or existing assets) less transfers to other units (of the agricultural industry or other industries). It should be recalled that if this transaction concerns two units of the agricultural industry during the same accounting period, the two flows cancel each other out and only the costs associated with the transfer of ownership are recorded under the corresponding fixed asset heading.

2.164. In the case of construction or capital goods (intended for sale) whose production is spread over several periods, the value of the work performed in the period of production is to be recorded in the change of stocks of the producer in the form of work in progress. These goods (whether movable or immovable) are not recorded in GFCF until the ownership has been transferred. By contrast, when this production is own-account, this work is recorded as GFCF during the entire production period (⌦ see point ⌫ 2.025).

2.165. Assets whose economic use changes without any change in ownership taking place (⌦ for example, ⌫ when a farm building is used for purposes other than an agricultural production activity) are not recorded as disposals of assets. These changes are recorded in the 'other changes in the volume of assets' account.

↓ 2019/280 Art. 1 and Annex I.5(zz)

(m) Major improvements to land

↓ 2019/280 Art. 1 and Annex I.5(aaa)

2.166. Major improvements in non-produced tangible assets correspond mainly to land improvement (better quality of land and higher yield through irrigation, drainage and flood prevention measures, etc.) and should be treated like any other GFCF (ESA 2010, point 3.128).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.5(bbb)

2.167. These investments correspond to expenditure on the improvement of land and its preparation for other productive uses, with the exception of expenditure on routine maintenance (⌦ see points ⌫ 2.127 ⌦ , 2.128 and ⌫ 2.129). This expenditure has to be made by holders or the result of this expenditure has to become their property. ➔1 This concerns, in particular, expenditure on infrastructure works such as clearance, levelling, drainage, irrigation and consolidation (⌦ see ⌫ ESA 2010, point 3.128 and 2008 SNA, points 10.79 to 10.81). ←

(n) Costs associated with the transfer of ownership of non-produced assets

2.168. Costs associated with the transfer of ownership of non-produced assets refer to acquisitions of land and non-produced intangible assets (such as patented assets, production rights, etc.) by agricultural units. These acquisitions are not recorded as GFCF (but under another heading of the capital account, because they are non-produced assets) and only the costs associated with the transfer of ownership are recorded as GFCF (for the acquirer, but not for the seller).

↓ 2019/280 Art. 1 and Annex I.5(ccc) (adapted)

(o) Research and development

2.169. Research and development consists of the value of expenditure on creative work undertaken on a systematic basis in order to increase the stock of knowledge, and use of this stock of knowledge to devise new applications. Unless the value can be reasonably estimated it is, by convention, valued as the sum of the costs, including those of unsuccessful research and development (⌦ see ⌫ ESA 2010 Annex 7.1).

↓ 138/2004

(p) Goods and services excluded from GFCF

2.170. The following goods and services are not included in GFCF:

↓ 2019/280 Art. 1 and Annex I.5(ddd) (adapted)

(a) small tools, working clothes, spare parts and equipment, even if these goods have a normal useful life of over one year; because they are renewed regularly, and to conform with business accounting practice, these purchases of goods are considered to be intermediate consumption (⌦ see points ⌫ 2.105 and 2.106);

↓ 138/2004 (adapted)

(b) ongoing maintenance and repairs (⌦ see points ⌫ 2.127 ⌦ , 2.128 and ⌫ 2.129) are classed as intermediate consumption;

↓ 2019/280 Art. 1 and Annex I.5(ddd) (adapted)

(c) services of advertising, market research, etc. Purchases of these services are included in intermediate consumption (⌦ see point ⌫ 2.109(d));

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)
→2 2019/280 Art. 1 and Annex I.5(eee)
→3 2019/280 Art. 1 and Annex I.5(fff)

(d) durable goods acquired by households to satisfy their domestic needs; as these goods are not used for production purposes, they are treated as final consumption;

(e) animals which serve as stocks: fattening animals reared for slaughter, including poultry;

(f) holding gains and losses on fixed assets (to be recorded in the revaluation account, ⌦ see point ⌫ 2.135);

(g) losses of fixed assets due to catastrophic events (cattle diseases, etc.) or force majeure (floods, gales, etc.) (⌦ see points ⌫ 2.045 and 2.136).

2.171. The value of fixed capital goods used simultaneously for professional and private purposes (motor vehicles, for example) is recorded in accordance with their two possible types of use; partly as GFCF and partly, as final consumption.

2. Change in stocks

(a) Definition of stocks and change in stocks

2.172. Stocks comprise all goods which do not form part of fixed capital and are held by producer units at a given moment. A distinction is made between two types of stocks: input stocks and output stocks:

– Input stocks are made up of raw materials and supplies which will be used at a later date as intermediate inputs in production processes. Normally, the consumption of these products is calculated by offsetting purchases (or other forms of acquisitions) with a change in stocks in the course of the reference period (⌦ see point ⌫ 2.021).

– Output stocks represent the stocks of finished products and work in progress of the producer. They are taken into account in the calculation of output. Output stocks comprise:

  – finished products from the industry: these are goods which producers have no intention of further processing before sending them for other economic purposes. In the case of agriculture, they include crop products, olive oil, grape must, livestock products and non-agricultural goods produced in inseparable secondary activities,

  – work in progress: this is output which is not quite finished. For the EAA, it includes wine, livestock for slaughter, all chickens and other poultry (including breeding poultry) and other animals except those regarded as fixed capital. It should be noted that growing crops (⌦ see point ⌫ 2.012) are not regarded as work in progress stocks in the annual economic accounts.

2.173. Not recording growing crops as work in progress is justified for European agriculture by the fact that a very large majority of crops have a production cycle which is shorter than an accounting period. It is also felt that recording them at the time of harvesting allows sufficient consistency with production costs to be maintained in the analysis of income from the activity (⌦ see point ⌫ 2.012). When the harvest, soil preparation and sowing operations are carried out in different accounting periods, the accounts of the period in which the costs occurred show an accounting loss and those of the harvest period an accounting profit. This accounting method may, however, be accepted because if the conditions remain the same from one year to another an approximate balance is established in that expenditure is offset in the same period by the profit from the sale of the previous harvest. Only in the event of a substantial change in production or in cases of very poor harvests does this compensation not occur. Under such circumstances, the recording of output as work in progress might be indicated (see also ⌦ point ⌫ 2.013).

2.174. It should be noted that services are not entered as stocks except for those included in the purchase value of goods placed into stock.

2.175. According to the ➔1 ESA 2010 ←, changes in stocks are measured by deducting from the value of stock entries the value of stock withdrawals and any recurrent losses of goods in stock.

(b) Time of recording and valuation of changes in stocks

2.176. Stock entries should be valued at the date of entry into stock and withdrawals should be valued at the prices prevailing when withdrawn from stocks. The time of recording (and valuation) of stock entries and withdrawals should be consistent with that of other transactions in products (output and intermediate consumption).

2.177. The basic price is the price to be used for valuing changes in stocks (entries, withdrawals or recurrent losses of finished products or work in progress). As regards entries of work in progress, the price used should be estimated by applying the fraction of the total production cost incurred by the end of the period to the basic price of a similar finished product. ➔2 Alternatively, the value of the entries of work in progress can be estimated by the value of the production cost with a mark-up for expected operating surplus or (estimated) mixed income (⌦ see ⌫ ESA 2010, points 3.47 and 3.48). ←

2.178. The method recommended in the ➔1 ESA 2010 ← for recording stock entries and withdrawals is the perpetual inventory method. However, this solution is not generally applicable in view of the difficulty in obtaining information on entries and withdrawals. In an attempt to get into line with the perpetual inventory method, the ➔1 ESA 2010 ← recommends a 'quantitative' method which consists in measuring changes in stocks as the difference in volume between the stocks at the opening and closing of the accounting period, valued at the average prices in force during the period concerned. However, this method is only applicable if prices remain stable over the period under consideration or if the prices and quantities stocked increase or decline at a constant rate during the accounting period.

2.179. This 'quantitative method' cannot be applied to crop production because of the fluctuation in prices and quantities resulting from the production process and the structure of supply and demand. ➔3 This problem which is specific to agriculture is recognised by the ESA 2010 (⌦ see point ⌫ 3.153 (c)). ←

2.180. It should also be considered that a change in stocks, as defined in ⌦ point ⌫ 2.175, is only one of the components of the change in the value of stocks between the start and end of the accounting period. There is in fact a basic accounting equation which connects the opening and closing figures for stock assets:

Value of closing stocks at the prices applicable at the end of the accounting period	
– Value of opening stocks at the prices applicable at the start of the accounting period =	Change in stocks (entries – withdrawals – recurrent losses)
	+ nominal holding gains (net of losses)
	+ other changes in volume

2.181. These nominal holding gains and losses and other changes in volume[29] should not be included in the measurement of output, but in the account of other changes in assets (respectively, in the revaluation account and in the other changes in the volume of assets account).

2.182. The main difficulty in valuing the change in stocks in the EAA concerns crop products. These products are in fact seasonal products whose entries into stocks only occur after the harvest and whose withdrawals are spread over several months after the harvest and often continues into the next accounting year. Their price may also be subject to substantial fluctuations from one period to another, or even within the same period.

(c) Change in stocks of livestock and animal products

2.183. When valuing changes in stocks of livestock, it is not very important whether the animals were reared from birth within the country or were imported when young and then reared and fattened in the country. When the imported animals are taken over by the holding which continues rearing them on the national territory, the animals are 'nationalised' and consequently assimilated to domestic production.

2.184. To evaluate changes in the herd at the end of the reference period, a distinction has to be drawn between the 'stocks' herd and the 'fixed assets' herd (⌦ see points ⌫ 2.140 and 2.203). The value at basic prices for the first category of animal should be considered to be the sum of the production costs throughout the life of the average animal in the different livestock classes up to and including the reference year, plus a mark-up for the estimated operating surplus or an estimate of mixed income (⌦ see point ⌫ 2.177). If an animal was originally imported before its period in the national territory, the purchaser price at the time of import can be regarded as representing the sum of the production costs up to that date.

2.185. Because of the generally regular changes in the prices of animals, it is possible to evaluate the change in livestock stocks by a simple approximation method which excludes nominal holding gains (net of losses). For each category of animal, the

[29] Other changes in volume are generally understood to be stocks of goods destroyed in the wake of exceptional events (such as natural disasters). Current losses are included in withdrawals from stocks.

change in population between the end and the start of the accounting year is multiplied by the average price observed over the reference period.

(d) Change in stocks of seasonal products

2.186. Seasonal products (⌦ see points ⌫ 2.179 and 2.182) are products for which the quantitative method does not constitute a good approximation of the perpetual inventory in view of the irregular change in prices and quantities. The application of the quantitative method could lead to the inclusion of nominal holding gains or losses in the measurement of the change in stocks. One solution could consist in measuring the change in stocks over shorter periods than the reference period (for example, each quarter), subperiods which would have more even price and quantity trends. Nevertheless, this type of method is often difficult to apply because of a lack of basic data.

↓ 2019/280 Art. 1 and Annex I.5(ggg)

2.187. Another method of evaluating stocks of seasonal products is that of examining the trend in the prices of stocked goods. The price of a good may change during storage for at least three reasons (2008 SNA, point 6.143):

– the production process is sufficiently long that discounting factors should be applied to work put in place significantly long before delivery,

– its physical qualities may improve or deteriorate with time,

– there may be seasonal factors influencing its supply or demand, thus resulting in regular and predictable changes in its price over the year, even though its physical qualities may not otherwise change.

↓ 2019/280 Art. 1 and Annex I.5(hhh)

2.188. The difference between the price at which products are put into stock and the price at which they are withdrawn should reflect the additional output value produced during storage (2008 SNA, point 6.143), since products withdrawn from storage several months after harvest are different, in economic terms, from those which have been stored. This type of increase in the value of products should not be counted as a nominal holding gain.

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.1(a)

2.189. On the basis of the different components of the change in the value of stocks and factors determining changes in the prices of products held in stock, and in view of the difficulty in fully excluding the recording of holding gains or losses from the valuation of seasonal output, two methods are recommended. They differ in their interpretation of the storage activity and the time for recording the change in the value of the goods resulting from their stay in stocks. The first method constitutes the reference method to be applied in valuing output and changes in stocks of seasonal

agricultural production. The second method may be used for more specific cases (mainly products whose prices are difficult to predict).

2.190. The reference method consists in determining the change in stocks as the difference between the value of output for the year and the value of sales (and other uses) for the same year[30]. It is founded on the assumption that there are no stocks left over at the end of the marketing year (the end of the first half of the following calendar year). It involves directly evaluating total output harvested during year n using the weighted average price for the marketing year (n/n + 1) and deducting from this the value of all sales (and other uses) made during calendar year n corresponding to the year of harvest[31] at the prices applicable at the time of sale (or other uses).

2.191. The reference method treats the storage activity as a factor for raising the prices of goods during storage. It thus makes a distinction between the storage activity and its effects on product prices. The increase in value resulting from the stay in storage is 'anticipated' since it is allocated to the output of year n (⌦ that is to say, ⌫ the year of harvest, even though the sales are spread over two calendar years), it being possible to anticipate price trends without too much uncertainty because they result from fairly regular and predictable changes (⌦ see point ⌫ 2.187).

2.192. The application of this method makes it possible to minimise the inclusion of holding gains or losses in the measurement of output. It ensures consistency between the calculations of output in value and quantity and avoids the recording of output on the basis of work in progress (requiring data on the level of stocks at the start and end of the calendar year, with corresponding prices). It also facilitates the elaboration of accounts in constant prices.

2.193. A second method is recommended in the specific case of products whose prices are difficult to predict (such as fruit, vegetables, potatoes and olive oil) and whose storage on agricultural holdings reaches economically significant levels. This method is less strict than the reference method in excluding holding gains and losses from the measurement of output; it considers the storage activity to be an extension of the production process in time. The inclusion of the increase in prices of stored goods is delayed and allocated to the year in which the storage took place.

2.194. By this second method, seasonal output is calculated directly as the sum of sales, other uses and changes in stocks. Stock changes are estimated by valuing the stocks at the end and start of the accounting period on the basis of their current prices.

2.195. It should be noted that these two methods differ in the way they measure the change in stocks but not in the valuation of sales (which are valued at the basic prices applicable on withdrawal from stocks).

(e) Changes in stocks of wine (from grapes produced by the same holding)

2.196. Wine is a product which is generally stocked for several years for ageing and maturing. During this storage period, the quality changes. This storage activity at the holding can be regarded as an extension of the wine production process since the wine leaving storage is different from the wine which entered. Stored wine should therefore be treated as work in progress and the increase in value which is then

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30 Use is made of the breakdown of output into sales (and other uses) and stock changes.

31 A similar result may be obtained by recording sales on a half-yearly basis and calculating the output of reference year n by adding together the sales of the second half of year n and those of the first half of year n + 1.

determined should be regarded as an increase in output to be measured continuously over time.

2.197. The change in the value of wine may result from three factors: the change in its quality, changes in the structure of supply and demand (⌦ that is to say, ⌫ relative prices between young and aged wines), and a general increase in prices. Whilst the change in the value of wine due to the first two factors should be included in the measurement of output, any increase in the price of wine due to a general increase in wine prices should not be reflected in the value of output but treated as a holding gain (recorded in the revaluation account).

2.198. Recording the increase in the value of wine in the value of output should be done throughout the course of the ageing process. However, this would mean having a large amount of data available on the structure of wine stocks based on their production year, quality and production area, as well as on the development of their respective prices. As these data are not generally available in the Member States, two practical methods have been developed which allow the increase in the value of wine due to ageing to be calculated approximately for the EAA. Although not so strict from the conceptual point of view, these two methods nonetheless appear to be acceptable in the current situation regarding availability of data. The choice of each Member State will depend on the structure of its wine-growing industry and statistical system.

2.199. Anticipation of the increase in value from wine-ageing: the first method is to value stock entries of wines to be aged by the producer, using the selling prices of wines which have already been aged, as observed in the second half of the year. The expected increase in value is anticipated in the output of the year of harvest. This increase is only partial since these wines are not valued at their real selling prices but at the prices of other wines of the same type but older. The difference between their real selling price and that used for evaluating stock entries is not counted in the value of output, since it is interpreted as holding gain (⌦ it is to be noted that ⌫ this difference includes the effects of inflation). Since it makes no distinction depending on the harvest year of the stocked or sold wine, it assumes that the quality wine market is even in terms of age of the wine.

2.200. Delay in taking into account wine ageing: the second method is to value stock entries at the price of 'unaged' wines at the time of harvesting and not to record an addition to the wine work in progress (⌦ that is to say, ⌫ the increase in price due to ageing, irrespective of the effect of the general change in the price of wine) until the aged wine is sold. Since sales are valued at the average price for the year, any increase in value between the harvest year and the year of sale is recorded in the output of the year of sale (and is therefore not distributed over time). This method requires more data on the structure of wine stocks as it assumes that the distribution of stocks (and stock withdrawals) is known for each harvest year. Nevertheless, it can provide a more accurate idea of sales and stocks of different vintages.

2.201. Neither of these two practical methods allows the increase in the value of wine from ageing to be distributed over time: one records it in advance and the other after a delay. This disadvantage can be regarded as a relatively minor one in both cases if it is assumed that there is a certain stability over time in the production of 'aged' wine. The first method appears to be preferable when the average ageing period is short.

3. Recording of livestock as 'GFCF' or 'changes in stocks

2.202. As ⌦ referred to ⌫ in ⌦ points ⌫ 2.140 and 2.151, changes in the number of livestock (for agricultural statistical purposes) are entered either as GFCF or as changes in stocks depending on the type of animal.

(a) Definition

2.203. GFCF of livestock concerns animals, ⌦ that is to say, ⌫ fixed assets, used repeatedly and continuously in production processes. They are reared for the output they regularly provide and include, for example, breeding livestock, dairy livestock, draught animals, sheep and other animals reared for their wool. By contrast, animals serving as stocks are animals produced during the current or a previous period which are kept in order to be sold or used for other production purposes at a later date. These include animals reared for their meat such as animals for slaughter and poultry.

(b) Recording of animal imports

1. Animals identifiable as fixed assets:

2.204. If, at the time of import, the animals were able to be clearly identified as a fixed asset, they would be recorded exclusively as acquisitions in the GFCF (⌦ see points ⌫ 2.149 and 2.150). Of course, only animals bought by the agricultural industry are to be recorded as GFCF of agriculture, and therefore not, for example, saddle horses for private use or animals acquired for other purposes.

2. Animals identifiable as stocks:

2.205. By contrast, if at the time of import the animals were able to be clearly identified as stocks (⌦ for example, ⌫ animals for slaughter) their import would be considered as an entry into stocks of work in progress and therefore, deducted from sales (negative sales) in the calculation of output (⌦ see point ⌫ 2.069).

3. Treatment to be adopted:

2.206. It is often difficult, on the basis of the sources of data available, to draw pertinent distinctions between these two different categories of animals. This is why the value of all imported animals (animals classed as fixed assets or stocks, but with the exception of those imported animals for immediate slaughter) should be deducted from sales in the output calculation. If at any time they are transferred to the herd of productive livestock (⌦ that is to say, ⌫ fixed assets), they will be recorded as own-account produced fixed capital goods during the reference period when the transfer takes place (as for animals which are produced and reared in the country and which are then transferred to herds of productive livestock) (⌦ see points ⌫ 2.069 and 2.070).

2.207. It should be noted that animals imported for immediate slaughter are entered as imports of the national abattoirs and are not recorded in the EAA since the latter are restricted to depicting the output of national agriculture.

(c) Recording of livestock trade between agricultural units

2.208. Animals classed as fixed assets: trade in these animals is recorded in GFCF as acquisitions and disposals of fixed assets (services associated with the transfer of ownership are recorded in the purchaser price). When sales and purchases occur in the same accounting period, these flows offset each other and only services

associated with the transfer of ownership are recorded as GFCF (⌦ see point ⌫ 2.068).

2.209. Animals classed as stocks: these sales and purchases are only recorded if they occur in two different accounting periods. Services associated with this trade, which are included in the purchaser price, should be deducted from the output total when trade occurs in the same accounting period (⌦ see point ⌫ 2.067).

2.210. Because of the special treatment of livestock trade between agricultural units and imports, there is no intermediate consumption for 'Livestock and animal products'.

(d) Non-agricultural animals

2.211. The rearing of race-horses, saddle horses, dogs, cats, cage birds, zoo and circus animals and bulls for bullfights is included in the activities defining the agricultural industry, whether it is for breeding, meat production, recreation or sports events (⌦ see point ⌫ 1.75). The use of these animals for service activities is included in the agricultural industry, only when such activities are performed by agricultural units as inseparable secondary activities. The rearing of non-agricultural animals by units for which the agricultural activity represents solely a leisure activity is not considered as part of the EAA (⌦ see point ⌫ 1.24).

2.212. Such animals may be sold to:

– households: in which case any subsequent operations involving these animals are of no concern to the EAA,

– other branches: a guard dog, circus animal or racing horse, for example; these form part of the formation of fixed capital of the purchasing branch.

III. DISTRIBUTIVE TRANSACTIONS AND OTHER FLOWS

A. DEFINITION

3.001. Distributive transactions are transactions ⌦ which ⌫:

– distribute value added generated by production among the workforce, capital and general government,

– involve the redistribution of income and wealth.

3.002. The ➔1 ESA 2010 ⬅ distinguishes between current transfers and capital transfers, the latter representing a redistribution of saving or wealth rather than of income.

3.003. Given that the EAA are the accounts for an industry, only certain distributive transactions will be described in this Chapter. The most important ones are those recorded in the primary income distribution accounts, particularly the generation of income account and entrepreneurial income account (⌦ see ⌫ EAA sequence of accounts, ⌦ points ⌫ 1.38 to 1.48). In the case of the generation of income account, these distributive transactions relate to other taxes on production, other subsidies on production and the compensation of employees. For the entrepreneurial income account, they correspond to certain types of property income (mainly land rents, interest and property income attributed to insurance policy holders). The account also records distributive transactions corresponding to aid for investment and other capital transfers in the capital account.

3.004. They do not include some distributive transactions relating to certain property income (mainly dividends and other income distributed by corporations), current

taxes on income and wealth, etc. Recording these transactions is only statistically feasible and meaningful if groupings of institutional units, ⌦ that is to say, ⌫ sectors and subsectors, are taken into account (⌦ see point ⌫ 1.06).

B. GENERAL RULES

1. Reference period

3.005. The reference period for the EAA is the calendar year.

2. Units

3.006. The values should be expressed in millions of units of the national currency.

3. Time of recording distributive transactions

3.007. As was explained in ⌦ point ⌫ 2.008, the ➔1 ESA 2010 🡐 records distributive transactions on an accrual basis, ⌦ that is to say, ⌫ at the time an economic value, amount due or claim is created, transformed or cancelled or ceases to exist, and not at the moment when payment is actually made. This 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. However, certain exceptions might be justified for practical reasons.

3.008. The times of recording the various types of distributive transaction are as follows:

(a) Compensation of employees

🡻 2019/280 Art. 1 and Annex I.6(a) (adapted)

3.009. Gross wages and salaries and actual social contributions (for account of employers) are recorded during the period in which the work was performed, although premiums and other exceptional payments are recorded at the time they become due (⌦ see ⌫ ESA 2010, point 4.12).

🡻 138/2004

(b) Taxes and subsidies on production

🡻 2019/280 Art. 1 and Annex I.6(b) (adapted)

3.010. Taxes on production are recorded at the time when the activities, transactions or other events giving rise to a fiscal obligation take place (⌦ see ⌫ ESA 2010, point 4.26). Similarly, subsidies on production are recorded at the time when the transaction or other event (production, sale, import, etc.) which gives rise to the subsidy occurs (⌦ see ⌫ ESA 2010, point 4.39).

↓ 138/2004

(c) Property income

↓ 2019/280 Art. 1 and Annex I.6(c) (adapted)

3.011. Interest is recorded during the accounting period in which it is due, irrespective of whether it is actually paid (⌦ see ⌫ ESA 2010, point 4.50 and following). This is done continuously for the amount of capital in question. Rents are also recorded for the period in which they are due (⌦ see ⌫ ESA 2010, point 4.75).

↓ 138/2004

(d) Capital transfers

↓ 2019/280 Art. 1 and Annex I.6(d) (adapted)

3.012. Capital transfers (investment grants or other transfers) are recorded at the time when payment is due (or, in the case of transfers in kind, when ownership of the asset is transferred or when the debt is cancelled) (⌦ see ⌫ ESA 2010, points 4.162 and 4.163).

↓ 138/2004 (adapted)

4. General remarks concerning value added

3.013. Value added is the balancing item of the production account. It is the difference between the value of output and the value of intermediate consumption (irrespective of the output concept used, since intermediate consumption changes accordingly). It is a key item in measuring the productivity of an economy or industry. It can be accounted for on a gross basis (gross value added) or on a net basis (net value added), ⌦ that is to say, ⌫ before or after the deduction of the consumption of fixed capital. Net value added is the only resource in the generation of income account. In line with the method for valuing output (basic price) and intermediate consumption (purchaser prices) net value added is measured at basic prices.

3.014. 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.

C. COMPENSATION OF EMPLOYEES

↓ 2019/280 Art. 1 and Annex I.6(e) (adapted)

(⌦ see ⌫ ESA 2010, points 4.02 to 4.13)

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(f)

3.015. ➔1 The compensation of employees is defined as total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the accounting period (⌦ see ⌫ ESA 2010, point 4.02). ← It includes:

– gross wages and salaries (cash ⌦ and ⌫ kind),

– employers' social contributions (actual and imputed).

3.016. Gross wages and salaries in cash comprise the following components:

(a) direct basic wages and salaries (payable at regular intervals);

(b) enhanced rates for overtime, night or weekend work, work of a particularly arduous nature, etc.;

(c) cost of living and accommodation allowances;

(d) wage benefits such as Christmas, end-of-year, holiday or productivity bonuses and allowances for higher grades;

(e) allowances for transport to and from work[32];

(f) compensation for days not actually worked, paid holidays;

(g) commissions, tips, attendance fees;

(h) other allowances or occasional payments linked to overall company results as part of profit-sharing schemes;

(i) payments made by employers contributing to asset formation by employees;

(j) one-off payments to employees when they leave the enterprise, in so far as the payments are not made under a collective agreement;

(k) housing allowances payable in cash by employers to their employees.

3.017. It should be stressed that the data to be entered are gross wages and salaries, including wage and salary taxes and any higher rates of these taxes and employees' social security contributions. In cases where net wages and salaries are paid by employers to their employees, therefore, they should be increased by the value of these items.

3.018. Gross wages and salaries in kind comprise goods and services made available by employers to their employees free of charge or at reduced prices for use by the employees and their families, as and when they wish, to satisfy their needs. They do

[32] This category must not include payments made primarily in the employer's interest. Such payments are part of intermediate consumption (see point 2.109 (e)).

not necessarily figure in the production process. Their value is the value of the benefit which they represent: the value of the goods if they are provided free of charge, or the difference between the latter value and the payments to the employees if they are provided at reduced prices These items, which are of considerable significance in the EAA, include the following components:

(a) agricultural products made available to employees free of charge or at reduced prices, by way of remuneration[33];

(b) accommodation services produced for own account and provided to employees free of charge or at reduced prices[34];

↓ 2019/280 Art. 1 and Annex I.6(g) (adapted)

(c) goods and services purchased by employers, provided that these purchases fulfil the definition of wages in kind (⌦ that is to say, ⌫ when they do not constitute intermediate consumption). In particular, the transport of employees between their place of work and home is part of their wages in kind, unless the journeys take place during the employer's time. This category includes purchased accommodation services and children's crèches, etc. (⌦ see ⌫ ESA 2010, point 4.05).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(h)

3.019. Wages and salaries in kind should be valued at their basic price or at the purchaser price (depending on whether the items are produced by the unit or purchased from outside).

3.020. Gross wages and salaries, by contrast, do not include expenditure by employers which is ⌦ for ⌫ their own benefit and incurred in the interest of the enterprise. The items in question are, *inter alia*: allowances towards/reimbursements of expenditure on travel, separation or removal incurred by employees in the course of their duties, entertainment expenses incurred by employees on behalf of the enterprise and expenditure on providing amenities at the place of work (⌦ for example, ⌫ sports and recreational facilities). Similarly, cash payments by employers to their employees for the purchase of tools or special clothing (including amounts which employees are contractually obliged to devote to such purposes) are not part of gross wages and salaries included under this heading. ➔1 All these items are recorded in the intermediate consumption of employers (⌦ see ⌫ ESA 2010, point 4.07). ←

3.021. Employers' social contributions include the value of social contributions paid by employers to ensure that their employees are covered by social welfare provisions

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33 Agricultural products provided to employees are output of the agricultural branch.

34 Accommodation services are treated as a separable non-agricultural activity, with the result that they only appear as compensation of employees and in the form of a deduction from the operating surplus of the agricultural industry. If they were an inseparable non-agricultural activity, they would be recorded as a component of production and a form of compensation of employees.

(except employees' social contributions deducted at source from gross wages or salaries (⌦ see point ⌫ 3.017). These contributions may be actual or imputed.

3.022. Actual social contributions represent the payments made by employers, including statutory, contractual and voluntary contributions by way of insurance against risks and social hardship. These social contributions are paid to insurers (social security administrations or private insurers). Although paid directly to insurers, they are treated as a component of compensation of employees since the latter are deemed to receive the contributions and then pay them to insurance enterprises.

↓ 2019/280 Art. 1 and Annex I.6(i) (adapted)

3.023. Employers' imputed social contributions represent the counterpart to other social insurance benefits, paid directly by employers to their employees or former employees and other eligible persons without involving an insurance enterprise or autonomous pension fund[35] (⌦ see ⌫ ESA 2010, point 4.10). These contributions are recorded during the period in which the work is performed (if they are the counterpart of compulsory social benefits) or when the benefits are provided (if they are the counterpart of voluntary social benefits). Employers' imputed social contributions ⌦ are ⌫ split into two categories: (a) employers' imputed pension contributions; and (b) employers' imputed non-pension contributions (ESA 2010, points 4.10 and 4.97).

↓ 138/2004 (adapted)

3.024. It must be stressed that, in the EAA, if the production units are individual enterprises, the compensation of employees does not include the remuneration for work carried out on the holding by the holder or non-salaried members of his family; these persons share in the mixed income, which is the balance of the generation of income account for individual enterprises. If, however, the production units are part of a corporation (⌦ see points ⌫ 5.09 and 5.10), all remuneration has to be recorded as compensation of employees.

[35] They correspond, in particular, to wages and salaries which employers continue to pay on a provisional basis to their employees in the event of illness, maternity, accidents at the workplace, invalidity or redundancy, in so far as the amounts concerned can be separately identified.

D. TAXES ON PRODUCTION AND IMPORTS

↓ 2019/280 Art. 1 and Annex I.6(j) (adapted)

(⌦ see ⌫ ESA 2010, points 4.14 to 4.29)

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(k)

3.025. Taxes on production and imports are compulsory, unrequited payments, in cash or in kind which are levied by general government, or by the institutions of the Union, in respect of the production and importation of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production. ➔1 These taxes are payable whether or not profits are made (⌦ see ⌫ ESA 2010, point 4.14). ←

↓ 2019/280 Art. 1 and Annex I.6(l)

3.026. Taxes on production and imports are divided into:

- taxes on products (D.21):
  - VAT-type taxes (D.211),
  - taxes and duties on imports excluding VAT (D.212), and
  - taxes on products, except VAT and import taxes (D.214)
- other taxes on production (D.29).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(m)
➔2 2019/280 Art. 1 and Annex I.6(n)

1. Taxes on products

3.027. Taxes on products are taxes payable per unit of produced or traded good or service. ➔1 They may be equivalent to a monetary amount determined per unit of the good or service or calculated ad valorem as a fixed percentage of the unit price or value of the good or service (⌦ see ⌫ ESA 2010, point 4.16). ←

3.028. ➔2 VAT-type taxes are taxes on goods and services collected in stages by enterprises and ultimately charged in full to the final purchaser (⌦ see ⌫

ESA 2010, point 4.17). ⇐ They include VAT and other deductible taxes applied under rules similar to those governing VAT[36].

⇓ 2019/280 Art. 1 and Annex I.6(o) (adapted)

3.029. Taxes and duties on imports excluding VAT comprise compulsory payments levied by general government, or by the institutions of the Union, on imported goods, excluding VAT, in order to admit them to free circulation on the economic territory, and on services provided to resident units by non-resident units (⌦ see ⌫ ESA 2010, point 4.18).

⇓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.6(p)

3.030. →1 They include import duties and other taxes such as levies on imported agricultural products, monetary compensatory amounts levied on imports, excise duties, etc. ⇐ They are payable by importers and are normally passed on to the holder who purchases the products, ⌦ that is to say, ⌫ they become part of the purchaser price of the goods and services. In cases where means of production are imported directly by agricultural producer units, the import duties, non-deductible VAT and monetary compensatory amounts (receipts or payments) should also appear in the purchaser price used for EAA purposes.

⇓ 2019/280 Art. 1 and Annex I.6(q) (adapted)

3.031. Taxes on products, except VAT and import taxes, consist of taxes on goods and services produced by resident enterprises and payable as a result of the production, export, sale, transfer, leasing or delivery of those goods or services, or as a result of their use for own final consumption or own capital formation (⌦ see ⌫ ESA 2010, points 4.19 and 4.20).

⇓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.6(r)
→2 2019/280 Art. 1 and Annex I.6(s)

3.032. In the case of agriculture, the taxes in question are:

- taxes on sugar beet,
- penalties for exceeding milk quotas,
- co-responsibility levies formerly applying to milk and cereals.

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[36] Turnover is the most important taxable item. All Member States raise turnover tax in the form of VAT. The rates of this tax vary from one Member State to another and indeed within individual Member States. Generally speaking, agricultural products are subject to a lower rate of tax than the standard rate.

3.033. As output is recorded at basic prices, taxes on products are recorded within the production account (⌦ see points ⌫ 2.083 to 2.087) and do not appear in the generation of income account. They should be recorded when the activities, transactions or other events which give rise to the payment take place. Since the EAA record these items net of deductible VAT, the only turnover tax recorded in them is non-deductible VAT. This is why no VAT is recorded in the accounts, except in the special case of under-compensation of VAT included under 'other taxes on production' (⌦ see point ⌫ 3.048(g)).

3.034. Taxes on products (other than VAT) which affect certain products of agricultural intermediate consumption should be included in the purchaser price of intermediate consumption in the production account (⌦ see points ⌫ 2.111 to 2.114). Such cases include, for example, taxes on sugar and alcohol used for wine-making which are levied in some Member States. These taxes, which constitute taxes on products of the agri-food industries, should be added to the value of intermediate consumption of the agricultural industry.

2. Treatment of VAT

3.035. ➔1 The description in the ESA 2010, point 4.17 refers to the standard VAT system under which each enterprise is allowed to deduct from the amount of VAT due on its own sales the amount of tax it has paid on its purchases of intermediate inputs or capital goods. ← However, in addition to the standard VAT regulations, there are special regulations for agriculture (VAT flat rate systems) which differ in form from one Member State to another.

3.036. The flat-rate systems used in the Member States can be grouped into two main types of compensation for VAT paid on purchases:

– via price. In this case, farmers subject to the flat-rate system sell their products at a price increased by the VAT flat rate percentage but do not pay the invoiced VAT to the financial authorities since the VAT they invoice and retain is calculated to compensate as exactly as possible for the VAT which they have paid on their purchases,

– as a refund. Under this system, farmers sell their products exclusive of VAT. On application to the financial authorities, they later receive a refund calculated as a flat-rate percentage[37] applied to their sales in compensation for the VAT which they have paid on their purchases.

(a) Definitions

3.037. The following concepts for the standard VAT system apply also to the flat-rate systems:

(a) VAT invoiced by the producer: this is the VAT which the producer calculates at the rate applying to the product sold and which ⌦ the producer ⌫ charges on ⌦ the producer's ⌫ invoice to each domestic purchaser;

(b) VAT invoiced to the producer on intermediate consumption: this is the VAT calculated at the rate applying to each product bought and which the producer

[37] The percentage rate may vary according to the type of product and channel of distribution.

has paid on ⌦ the producer's ⌫ intermediate inputs; this is called deductible[38] VAT on intermediate consumption;

(c) VAT invoiced to the producer on purchases of fixed capital goods: this is called deductible VAT on purchases of capital goods;

(d) VAT payable by the producer on ⌦ the producer's ⌫ current transactions: this is the difference between the VAT invoiced by the producer and the VAT invoiced to the producer on ⌦ the producer's ⌫ intermediate consumption purchases (a-b);

(e) Total VAT paid by the producer: this is the difference between the VAT invoiced by the producer and the total VAT invoiced to the producer on ⌦ the producer's ⌫ intermediate consumption purchases and on ⌦ the producer's ⌫ purchases of capital goods (a-b-c).

3.038. ➔2 The provisions of the ESA 2010, point 4.17 lay down a single method of recording VAT. ➔ This is the 'net' system, whereby output and input prices are recorded exclusive of deductible VAT.

3.039. In tax law, VAT is treated as a 'transitory item' for producers, so that the deductible VAT which producers ⌦ have ⌫ to pay on ⌦ their ⌫ purchases does not represent a true cost component for ⌦ their ⌫ own calculations and can be regarded merely as an advance instalment of the VAT which ⌦ they have ⌫ to calculate on ⌦ their ⌫ own turnover, thus leaving ⌦ them ⌫ only the difference to pay to the tax office. Since, in general, it is only the final consumer who has to pay the VAT levied on that product, the producer (together with the producers of the intermediate consumption goods required) acts effectively as an agent of the tax office. Conversely, where it is not possible for the producer to deduct (or reclaim) tax paid on purchases (non-deductible VAT), the VAT in these cases should be regarded as a cost component.

(b) Operation of the net recording method

3.040. For farmers subject to the standard system there is no accounting difficulty; VAT invoiced on products sold, or otherwise disposed of, is ignored in the EAA and should not appear in any output price used for evaluating final output, while deductible VAT paid on purchases of items of intermediate consumption and fixed capital goods is also excluded from the relevant prices when calculating expenditures for the EAA.

3.041. For farmers subject to the flat-rate systems, however, there are accounting problems (⌦ see point ⌫ 3.035 and following). As is obvious, the compensation allowed to individual farmers will only rarely be exactly equal to the VAT which they have paid on their purchases. In the case of the flat-rate systems, the method of recording VAT will be identical to that used for the standard system, ⌦ that is to say, ⌫ exclusive

[38] The variations between Member States in the VAT systems which they operate sometimes produce situations in which VAT paid by farmers on their purchases cannot be recovered or compensated for. Such VAT payments represent: (i) non-deductible VAT, that is to say, VAT paid on purchases which farmers, irrespective of the system to which they are subject, may not deduct from the VAT invoiced on sales and for which there is thus no compensation; (ii) and/or VAT other than that referred to under (i), paid on purchases for which farmers subject to the flat-rate system are not fully compensated via the selling price or via reimbursement.

of VAT for the individual items of final output and exclusive of deductible VAT for the individual items of intermediate consumption and GFCF.

The difference between the flat-rate compensation granted to farmers who are subject to the flat-rate systems and the VAT which they would have been able to deduct if they had been subject to the standard VAT system represents over- or under-compensation. Any over- or under-compensation must be entered separately in the EAA.

3.042. The method of recording over- or under-compensation of VAT under flat-rate systems is as follows:

– over-compensation of VAT on purchases is recorded under 'Other subsidies on production',

– under-compensation of VAT on purchases is recorded under 'Other taxes on production'.

'VAT on purchases' is the VAT which farmers who are subject to the flat-rate system would have been able to deduct had they been subject to the standard VAT system.

3.043. This recording method offers the advantage of being conducive to uniform treatment of agricultural output, intermediate consumption and GFCF, irrespective of the VAT system to which farmers are subject. Moreover, it makes for symmetrical treatment of over- or under-compensation of VAT compared with gross value-added at basic prices. This enables gross value-added at basic prices to be calculated regardless of the VAT system adopted, which favours harmonisation and comparability of the EAA of the Member States (⌦ see point ⌫ 3.033).

3. Other taxes on production

↓ 2019/280 Art. 1 and Annex I.6(t) (adapted)

3.044. Other taxes on production comprise all taxes that enterprises incur as a result of engaging in production, independently of the quantity or value of the goods and services produced or sold (⌦ see ⌫ ESA 2010, point 4.22). They may be payable on land, fixed assets or labour employed in the production process or on certain activities or transactions.

↓ 138/2004 (adapted)

3.045. Other taxes on production are the only taxes to be recorded in the generation of income account for the industry. They appear in the accounts of the branches or sectors which pay them (payment criterion).

3.046. The taxes to be recorded in the generation of income account for agriculture must be:

(a) compulsory;

(b) paid direct by the agricultural industry;

(c) paid to general government or the institutions of the Union;

(d) within the definition of other taxes on production (see ⌦ point ⌫ 3.044).

3.047. Owing to the disparate historic developments of public finances in the various Member States, there is a very wide range of taxes on production throughout the ⌦ Union ⌫. In agriculture, there are two other fairly important types of tax on production: property tax and motor vehicle tax.

3.048. For agriculture, the most important other taxes on production are:

(a) property taxes and other taxes on the use of land and buildings used for production purposes (irrespective of whether the agricultural units own or hire them);

(b) taxes on the use in production of fixed capital goods such as motor vehicles, machines or other equipment (irrespective of whether the agricultural units own or hire them);

(c) wage-bill taxes paid by the employer;

(d) taxes on pollution resulting from production activities;

(e) taxes on licences/permits to engage in commercial or professional activities, on condition that the licences/permits are granted automatically once the amounts due have been paid. If a regulatory function attaches to these payments (⌦ for example, ⌫ checks on the applicant's competence or qualifications), they should be treated as purchases of services from general government and be recorded as intermediate consumption (unless they are completely out of proportion to the cost of providing the services in question) (⌦ see point ⌫ 2.109(o));

(f) water rates which are paid as flat-rate taxes and not proportional to the quantity of water consumed;

(g) under-compensation of VAT resulting from the application of the flat-rate VAT systems (⌦ see points ⌫ 3.041 and 3.042).

3.049. In line with the accrual principle, taxes on production are recorded at the time when a fiscal obligation is incurred. In the case of under-compensation of VAT, this is the time of purchase of goods and services of intermediate consumption and the GFCF which gives rise to it (not the time of reimbursement).

3.050. Other taxes on production do not include:

(a) statutory payments which are made direct by the agricultural industry but whose recipients are neither general government nor institutions of the Union. These payments are regarded as purchases of market services from recipients of transfers and therefore included in the intermediate consumption of agriculture;

↓ 2019/280 Art. 1 and Annex I.6(u) (adapted)

(b) fines and penalties and the costs imposed in connection with collection and recovery should not be recorded with the taxes to which they relate, unless they cannot be distinguished from them (⌦ see ⌫ ESA 2010, point 4.133);

↓ 138/2004

(c) compulsory taxes not raised by general government or the institutions of the Union and which, although borne by agriculture, are settled by a client branch. These payments should be accounted for in the intermediate consumption of the user branch;

(d) taxes normally levied on profit or wealth, such as equalisation taxes, income tax, corporation tax and wealth tax. These should be included as current taxes on income, assets, etc. in the secondary distribution of income account;

(e) taxes on inheritance and gifts and special wealth taxes. These should be included as capital taxes in the capital account;

(f) water rates whose amount is linked directly or indirectly to the quantity of water consumed.

E. SUBSIDIES

↓ 2019/280 Art. 1 and Annex I.6(v) (adapted)

(⌦ see ⌫ ESA 2010, points 4.30 to 4.40)

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(w)

3.051. Subsidies are current unrequited payments which general government or the institutions of the Union make to resident producers, with the objective of influencing their levels of production, their prices or the remuneration of the factors of production. Other non-market producers can receive other subsidies on production only if those payments depend on general regulations applicable to market and non-market producers as well. ➔1 By convention, subsidies on products are not recorded in non-market output (P.13) (⌦ see ⌫ ESA 2010, point 4.30). ←

↓ 2019/280 Art. 1 and Annex I.6(x)

3.052. Subsidies are classified into:

- subsidies on products (D.31):
  - import subsidies (D.311),
  - other subsidies on products (D.319), and
- other subsidies on production (D.39).

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.6(y)
→2 2019/280 Art. 1 and Annex I.6(z)

1. Subsidies on products

3.053. Subsidies on products are subsidies payable per unit of a good or service produced or imported. The subsidy may be a specific amount of money per unit of a good or service, or it may be calculated *ad valorem* as a specified percentage of the price per unit. A subsidy may also be calculated as the difference between a specified target price and the market price actually paid by a buyer. A subsidy on a product usually becomes payable when the good is produced, sold or imported. →1 By convention, subsidies on products can only pertain to market output (P.11) or to output for own final use (P.12) (⌦ see ⌫ ESA 2010, point 4.33). ←

3.054. Import subsidies consist of subsidies on goods and services that become payable when the goods cross the frontier for use in the economic territory or when the services are delivered to resident institutional units. →2 They may include losses, incurred as a matter of deliberate government policy, by government trading organisations whose function is to purchase products from non-residents and then resell them at lower prices to residents (⌦ see ⌫ ESA 2010, point 4.34). ←

3.055. Subsidies on products are accounted for in the basic price (⌦ see points ⌫ 2.082 to 2.086) at the time of the valuation of output and therefore do not appear in the industry's generation of income account. Subsidies on products which relate to the acquisition (⌦ that is to say, ⌫ imports or others) of intermediate consumption products or fixed capital goods, and which lead to a reduction in the purchaser prices of these goods, are taken into account by using purchaser prices in the valuation of intermediate consumption or GFCF (⌦ see points ⌫ 2.110 to 2.113); correspondingly, this leads to a reduction of the costs of these products or goods.

↓ 306/2005 Art. 1 and Annex .1

3.056. The method of valuation of output at basic prices requires a fundamental distinction between subsidies on products and other subsidies on production. Subsidies on agricultural products[39] can be paid either to agricultural producers or to other economic operators. Only subsidies on products which are paid to agricultural producers are added to the market price received by producers to obtain the basic price. Subsidies on agricultural products paid to economic operators other than agricultural producers are not entered in the EAA.

[39] Subsidies on agricultural products paid to agricultural producers include any subsidy in the form of a deficiency payment to holders (that is to say, in cases where general government pays the producers of agricultural products the difference between the average market prices and the guarantee prices of agricultural products).

↓ 138/2004 (adapted)

3.057. Subsidies on products should be recorded at the time when the transactions or events which give rise to them (production, sale, import, etc.) take place, so as to preserve the consistency with the other accounts (⌦ that is to say, ⌫ the measurement of output at basic prices). Thus, compensatory aid for arable crops should be recorded at the time of harvest whereas special premiums for cattle and suckler cows and premiums for ewes are recorded at the time the animals are kept and/or the date of the grant application.

2. Other subsidies on production

↓ 2019/280 Art. 1 and Annex I.6(aa) (adapted)

3.058. Other subsidies on production consist of subsidies other than subsidies on products, which resident producer units may receive as a consequence of engaging in production. For their other non-market output, other non-market producers can receive other subsidies on production only if these payments from general government depend on general regulations applicable to both market and non-market producers (⌦ see ⌫ ESA 2010, point 4.36). The ESA 2010 refers to four other subsidies on production (⌦ see ⌫ ESA 2010, point 4.37): subsidies on payroll or workforce, subsidies to reduce pollution, grants for interest relief, and over-compensation of VAT. These payments relate mainly to the assumption of production costs or support for changes in the method of production.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.1(a)

3.059. Since output is valued at basic prices, only other subsidies on production are recorded in the generation of income account (as negative uses).

(a) Type of beneficiary

3.060. Beneficiaries of subsidies must normally produce market goods and services or goods and services for own final use. Market goods and services are all the goods and services which are released or intended for release on the market. They include products sold, bartered, used for payment in kind or stored prior to being put to one or more of the above uses at a later date. Production for own final use involves products which are preserved for purposes of final consumption or GFCF by the same unit. Nevertheless, non-market producers may benefit from other subsidies on production if they are payable under general regulations applicable to market and non-market producers alike.

3.061. The production of market services also includes commercial and storage services. Subsidies can therefore also be granted to the trade and market-regulating agencies whose function is to buy, store and resell agricultural products (⌦ see points ⌫ 3.068 and 3.069 on market-regulating agencies).

(b) Purposes of other subsidies on production

3.062. Other subsidies on production can, under the ➔1 ESA 2010 ←, be granted in cases where their impact on selling prices or adequate remuneration of the factors of production are not necessarily the main purpose of the subsidies. For example, financial aid may be granted to agricultural production in order to safeguard the cultural and natural heritage, promote tourism in a particular region or to protect the soil against erosion, regulate the natural water balance or influence the climate.

(c) Payment criterion

3.063. With the exception of interest-rate subsidies, which are a special type of subsidy, other subsidies on production are attributed to the generation of income account of the production branches or the sectors to which they are paid. As a result of this method of attributing subsidies, the EAA do not account for all grants made to agriculture. Apart from direct aid, agricultural production units benefit from subsidies (within the meaning of the ➔1 ESA 2010 ←) paid to up ⌦ stream ⌫ and downstream production branches and, especially, market-regulating agencies[40].

↓ 306/2005 Art. 1 and Annex .2 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(bb)

3.064. In the case of agriculture, the most important types of other subsidy linked to production are:

– wage and payroll subsidies,

– ➔1 grants for interest relief (⌦ see ⌫ ESA 2010, point 4.37(c)) made to resident producer units, even when they are intended to encourage capital formation[41] ←. In effect, these are current transfers designed to reduce producers' operating costs. They are treated in the accounts as subsidies to the producers benefiting from them, even when the difference in the interest is, in practice, paid directly by the government to the credit institution making the loan (by way of derogation from the payment criterion),

– over-compensation of VAT resulting from the application of the flat-rate systems (⌦ see points ⌫ 3.041 and 3.042),

– the assumption of social security contributions and real-estate taxes,

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40 An important example are subsidies paid to non-life insurance companies which enable these companies to charge lower (gross) premiums to the insurance policy holders (for example, agricultural enterprises taking out insurance to cover risks such as damage by hail, frost etc.). As these subsidies are subsidies on products, the product being the insurance service, they are not recorded in the generation of income account of the policy holder (and thus not, in the above example, in the EAA). However, in as much as these subsidies reduce the costs of the insurance services (to the insurance policy holder), their effect is reflected in the production account (by a lower value of intermediate consumption, see point 2.109(g)) of the insurance policy holder.

41 However, when a grant serves the dual purpose of financing both the amortisation of the debt and the payment of interest on it, and when it is not possible to apportion it between the two elements, the whole of the grant is treated as an investment grant.

– the assumption of other costs such as private storage aid for wine and grape must and the re-storage of table wines (in so far as the stocks are owned by an agricultural unit),

– various other subsidies on production:

– grants for land set-aside (compulsory set-aside linked to acreage-based grants and voluntary set-aside),

– financial compensation for withdrawals of fresh market fruit and vegetables. These payments are often made to groups of market producers, and should be treated as subsidies to agriculture, since they are direct compensation for loss of production,

– cattle premiums for seasonal adjustment (deseasonalisation) and extensification,

– grants for agricultural production in less-favoured and/or mountainous areas,

– other grants intended to influence methods of production (extensification, techniques designed to reduce pollution, etc.),

– amounts paid to holders as compensation for recurrent losses of goods in inventories such as crop or livestock products which are considered to be work in progress and plantations in so far as they are still in their growth period (see ⌦ points ⌫ 2.040 to 2.045). By contrast, compensatory transfers for losses of goods in inventories and/or plantations used as factors of production are recorded as other capital transfers in the capital account.

🡻 138/2004 (adapted)
➔$_1$ 2019/280 Art. 1 and Annex I.6(cc)
➔$_2$ 2019/280 Art. 1 and Annex I.1(a)

3.065. Applying the accrual principle to the recording of other subsidies on production can be a delicate matter. As it is difficult to draw up a general rule, this principle should be applied with consistency, flexibility and pragmatism. Because a large number of subsidies to agriculture are linked to production and the factors of production (acreage, herd, etc.), these subsidies should usually be recorded at the time of production or when the factors of production are acquired (especially in the case of land and livestock). In the case of subsidies which are not directly linked to production or the factors of production, it is difficult to determine the time of the transaction which gives rise to them and to distinguish it from the time when the subsidies are paid. In this particular case, subsidies are recorded when they are received.

3.066. The following special treatments are recommended:

– compensatory payments for arable land which is set aside: at the time when the area to be set aside is stated,

– withdrawals of products (fruit/vegetables): at the same time as the physical withdrawal during the crop year and not the calendar year, in order to ensure consistency between the estimation of output, less withdrawals during the crop

year, and the recording of subsidies (as negative uses) in the generation of income account,

- grants for cattle production (extensification premium, etc.): the moment when the animals are acquired by the holders and the date of the grant application,
- assumption of costs (including interest relief): the time when the expenditure and interest are due,
- compensation for recurrent losses affecting output (crops, livestock and plantations which are still in their growth period, ⌦ see point ⌫ 3.064): at the moment when the output is recorded in the EAA (if the exact amount of the compensation is known with certainty),
- other subsidies not directly on products or factors of production (direct income support, aid to less-favoured areas, etc.): it is recommended that the criterion depending on the time of payment continues to be used, because it is difficult to determine when the application for compensation was filed and whether the amounts in question are accurate.

3.067. The EAA does not treat the following as subsidies:

- current transfers which, although they are subsidies within the meaning of the EAA, are not paid to agricultural production units. Most of these transfers are subsidies paid to market-regulating agencies. Although the amounts paid can affect the selling prices of agricultural products and therefore constitute a stimulus to agriculture, they should be recorded according to the payment criterion under the heading devoted to the branch of production which receives them,
- ➔1 current transfers to agricultural producer units by a market-regulatory agency. These should be recorded as components of output of the product in respect of which the transfer is paid in so far as the market-regulatory agency is involved only in the purchase, sale or storage of the goods. ← If, however, the agency is involved only in paying subsidies, then current transfers to producer units should be recorded as subsidies (⌦ see points ⌫ 3.068 and 3.069),
- exceptional transfers by professional bodies to agricultural production units. These transfers cannot constitute subsidies since professional bodies are not general government,
- current transfers by general government to households in their capacity as consumers. They are treated either as social benefits or as miscellaneous current transfers. The former include certain public grants for structural change, such as financial aid for the vocational retraining of holders,

– capital transfers: these are different from current transfers in that they involve the acquisition or disposal of an asset or assets by at least one of the parties to the transaction. ➔1 Whether made in cash or in kind, they should result in a commensurate change in the financial, or non-financial, assets shown in the balance sheets of one or both parties to the transaction (⌦ see ⌫ ESA 2010, point 4.145). Capital transfers cover capital taxes, investment grants and other capital transfers (⌦ see ⌫ ESA 2010, point 4.147). ← They are recorded in the capital account of the sector/industry as changes in liabilities and net value. Some types of aid to agriculture are capital transfers. The most important of these are:

  – grants for converting orchards/vineyards (not subject to a replanting obligation), which constitute other capital transfers,

  – grants for restructuring orchards/vineyards (subject to a replanting obligation), which are investment grants,

  – grants for the cessation of or reduction in milk production: these are recorded as other capital transfers in so far as they have an explicit or implicit impact on the value of quotas,

– transfers by general government to agricultural corporations and quasi-corporations intended to cover losses accumulated during several financial years or exceptional losses due to factors beyond the enterprise's control. These transfers should be classified as other capital transfers,

– compensation paid by general government or the rest of the world (⌦ that is to say, ⌫ from abroad and/or by the institutions of the Union) to the owners of fixed capital goods engaged in the production of agricultural products, as a result of exceptional and catastrophic losses such as the destruction of or damage to these goods caused by acts of war, other political events or natural disasters (⌦ see point ⌫ 2.045). These payments should be classified as other capital transfers (see point 3.096),

– cancellations of debts which the producers of agricultural products have contracted with general government (⌦ for example, ⌫ advances from general government to a producer enterprise which has accumulated operating losses over several financial years). The ➔2 ESA 2010 ← states that these transactions should also be classified as capital transfers,

– the abatement or lowering of taxes on production, income or wealth is not explicitly stated in the ➔2 ESA 2010 ← or, consequently, in the EAA, since only taxes which are actually levied are accounted for,

– shares and participating interests held by general government in the capital of agricultural corporations and quasi-corporations. These are recorded as shares and other participating interests.

↓ 2019/280 Art. 1 and Annex I.6(dd)

(d) Market-regulatory agencies

↓ 2019/280 Art. 1 and Annex I.6(ee) (adapted)

3.068. In a breakdown of the economy, market-regulatory agencies are assigned as follows:

(a) where concerned exclusively with the purchase, sale or storage of goods:

(i) by industry, to trade; this activity is deemed by convention to be the output of non-financial market services;

(ii) by sector, to non-financial corporate and quasi-corporate enterprises, if these market-regulating agencies are considered as institutional units within the meaning of the ESA 2010, and if not, to the sector to which the larger unit belongs;

(b) where concerned exclusively with the payment of subsidies:

(i) by industry, to the branches of non-market output of general government, since only the government (apart from institutions of the Union) can pay subsidies according to ESA 2010 ruling;

(ii) by sector, to the sector general government (⌦ see ⌫ preceding ⌦ point ⌫);

(c) where concerned with both purchase, sale and storage of goods and the payment of subsidies:

(i) by industry, to the branch trade, as regards their units of production (of the local KAU type) which buy, sell or store goods, and to the branches of non-market output of general government, together with its production units;

(ii) by sector, to the sector general government, since only general government can pay subsidies. Assignment to another sector would mean that the subsidies paid by the market-regulating agency no longer constituted subsidies within the meaning of the ESA 2010.

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.1(a)
➔2 2019/280 Art. 1 and Annex I.6(ff)

3.069. A consequence of the strict application of the payment criterion is that various subsidies within the meaning of the ➔1 ESA 2010 ← do not appear in the EAA, since they are recorded under the branches and sectors to which the subsidies are paid. ➔2 In particular, if market-regulatory agencies are assigned to the sector general government, subsidies paid to the agencies in connection with market-regulating processes (purchase, storage and resale) appear as 'Uses' but also as

'Resources' in the sector general government. ← Consequently, subsidies (⌦ that is to say, ⌫ other subsidies on production) may be made by general government to other general government agencies.

F. PROPERTY INCOME

↓ 2019/280 Art. 1 and Annex I.6(gg) (adapted)

(⌦ see ⌫ ESA 2010, points 4.41 to 4.76)

↓ 138/2004

1. Definition

↓ 2019/280 Art. 1 and Annex I.6(hh)

3.070. Property income is the income receivable by the owner of a financial asset or tangible non-produced asset in return for providing funds to, or putting the tangible non-produced asset at the disposal of, another institutional unit (ESA 2010, point 4.41).

↓ 2019/280 Art. 1 and Annex I.6(ii)

3.071. The ESA 2010 classifies property incomes in the following way:

- interest (D.41),
- distributed incomes of corporations (dividends and withdrawals from income of quasi-corporations) (D.42),
- reinvested earnings on foreign direct investment (D.43),
- other investment income (D.44): investment income attributable to insurance policy holders (D.441), investment income payable on pension entitlements (D.442); investment income attributable to collective investment funds shareholders (D.443),
- rents (D.45).

↓ 138/2004 (adapted)

3.072. The EAA are concerned only with property income accounted for in the entrepreneurial income account (⌦ see ⌫ sequence of accounts, ⌦ points ⌫ 1.38 to 1.48). This account records on the resources side income received by units as a result of their direct participation in the production process (operating surplus/mixed income) and receivable property income received. It records on the uses side payable property income linked to agricultural activities (and inseparable non-agricultural secondary activities). Generally speaking, the entrepreneurial income account can only be calculated for the institutional sectors, although it may be calculated for an industry if certain property income can be attributed to local KAUs.

↓ 2019/280 Art. 1 and Annex I.6(jj)

3.073. Only three types of property income can be of relevance to the EAA: interest (D.41), rents (D.45) and investment income attributable to insurance policy holders (D.441).

↓ 2019/280 Art. 1 and Annex I.6(kk)

2. Interest

(ESA 2010, points 4.42 to 4.52)

↓ 138/2004 (adapted)

3.074. Interest is the charges payable on a capital loan. It includes payments to be made at intervals, fixed in advance, of a percentage (fixed or otherwise) of the value of the loan. In the EAA, interest is the counterpart of loans granted to meet the needs of agricultural holdings (for example, with a view to acquiring land, buildings, machines, vehicles or other equipment, even if these are used in the context of inseparable non-agricultural secondary activities).

3.075. Interest also includes payments relating to leasing of fixed capital goods for their use in agriculture (possibly including land). Only the rent part (treated as an imputed loan granted by the lessor to the lessee) paid by the lessee is included under payment of interest (the capital part is recorded in the financial account).

3.076. It should be noted that notional interest on fixed equity capital in agricultural holdings is not recorded under this heading; it appears as a component of the income of the agricultural enterprise (⌦ see point ⌫ 5.06). Similarly, the amount to be recorded as interest payable includes interest-rate subsidies to agriculture.

↓ 2019/280 Art. 1 and Annex I.6(ll)

3.077. Interest receivable in connection with agricultural activities by units belonging to corporate agricultural enterprises should also be recorded. Interest receivable by individual enterprises is excluded from the measure of entrepreneurial income of the agricultural industry, since it was felt that the majority of interest-bearing assets are not linked to the agricultural activity of the units and because it is very difficult to distinguish family assets from assets used in production[42].

↓ 138/2004 (adapted)

3.078. Interest is recorded in line with the accrual principle, ⌦ that is to say, ⌫ as accrued interest (not as interest paid).

[42] Interest receivable corresponds to 'Other accounts receivable' (F.8) in the financial account.

↓ 909/2006 Art. 1 and Annex I.5 (adapted)
→1 2019/280 Art. 1 and Annex I.6(mm)

3.079. The value of the services provided by financial intermediaries being allocated among different customers, the actual payments or receipts of interest to or from financial intermediaries need to be adjusted to eliminate the margins that represent the implicit charges made by financial intermediaries. The estimated value of these costs should be subtracted from the interest paid by borrowers to financial intermediaries and added to the interest received by depositors. →1 The costs are regarded as remuneration for services rendered by financial intermediaries to their clients and not as an interest payment (see ⌦ point ⌫ 2.108 and ⌦ point ⌫ 2.109(i); ESA 2010, point 4.51). ←

↓ 2019/280 Art. 1 and Annex I.6(nn) (adapted)

3. Rents (on land and subsoil assets)

(ESA 2010, points 4.72 ⌦ to ⌫ 4.76)

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.6(oo)
→2 2019/280 Art. 1 and Annex I.6(pp)
→3 2019/280 Art. 1 and Annex I.1(a)

3.080. →1 Rents correspond to payments made to the owner of non-produced tangible assets (land and subsoil assets) in return for making assets available to another unit. ← In the EAA, this item corresponds mainly to rents paid on land by holders to the landowners[43].

3.081. Where the owner pays certain charges directly linked to agricultural activity (property tax, the cost of maintaining land, etc.), the rents to be recorded should be reduced accordingly. These charges are accounted for as other taxes on production (in the case of property tax) or intermediate consumption (in the case of land maintenance).

3.082. Rents on land do not include the rentals of buildings or dwellings situated on it; those rentals are treated as the payment for a market service provided by the owner to the tenant of the building or dwelling, and are to be recorded in the accounts as the intermediate consumption of services or as final consumption expenditure (household accounts), depending on the type of tenant unit. If there is no objective basis on which to split the payment between rent on land and rental on the buildings

[43] Note that rents received are not relevant to the EAA due to the use of the agricultural industry concept (see point 1.44).

situated on it, the whole amount is to be recorded as rent on land. ➔2 This rule is an adapted version of the ESA recommendation (⌦ see ⌫ ESA 2010, point 4.73) ➔3 [44] ←. ←

3.083. All rent on land should be recorded under this heading whether the land is rented for less or more than one year.

3.084. Rents do not include:

- the rental value of dwellings contained in these buildings; this is remuneration for a market service which is a component of private consumption (⌦ that is to say, ⌫ the occupant pays the rent from his net residual income),
- rents paid for the professional use of non-residential buildings (⌦ see point ⌫ 2.109(a)),
- depreciation of buildings,
- current maintenance expenditure on buildings (⌦ see point ⌫ 2.106),
- property tax (⌦ see point ⌫ 3.048(a)),
- expenses relating to buildings insurance (⌦ see point ⌫ 2.109(g)).

3.085. In the case of land and buildings used by the owner, there is no need to account for notional rents. The rents corresponding to non-produced intangible assets such as patented assets and production rights (milk quotas), should be recorded as intermediate consumption (⌦ see point ⌫ 2.109(n)).

↓ 2019/280 Art. 1 and Annex I.6(qq)

4. Investment income attributable to insurance policy holders (not covered by the EAA)

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(rr)
➔2 2019/280 Art. 1 and Annex I.1(a)
➔3 2019/280 Art. 1 and Annex I.6(ss)

3.086. ➔1 Investment income attributable to insurance policy holders corresponds to total primary incomes received from the investment of insurance technical reserves and pension funds (⌦ see ⌫ ESA 2010, point 4.68). ← These technical reserves are treated as assets belonging to the insured. ➔2 The ESA 2010 ← provides for the calculation of entrepreneurial income to include, as resources, incomes received from the investment of insurance technical reserves. This income is attributed to the insured as property income attributed to insurance policy holders. The latter is treated as being paid back to the insurance enterprises in the form of additional premiums, since, in practice, the income is retained by them (⌦ see ⌫ ➔2 ESA 2010 ←, point 4.69).

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[44] The ➔3 ESA 2010 ← proposes that the full amount be recorded as rent on land if the value of the land is thought to be higher than that of the building, and as rent on buildings if the opposite is the case.

3.087. ➔3 Investment income attributable to insurance policy holders is not covered by the EAA. ← In fact, in order to be meaningful, a measure for the income of agricultural activity should:

– include all flows related to non-life insurance (value of the service, income attributed to insurance policy holders, net premiums and claims): in this case, the income measured appears after description of all transactions of redistribution (between insurance policy holders and insurance enterprises and between periods) linked to non-life insurance, or

– only take into account the value of the service (which is definitely acquired from the insurance enterprise) (⌦ see point ⌫ 2.109. (g)): in this case, the income measured appears before ⌦ the ⌫ description of all these transactions of redistribution.

The EAA have opted for the second solution.

G. CAPITAL TRANSFERS

↓ 2019/280 Art. 1 and Annex I.6(tt) (adapted)

(⌦ see ⌫ ESA 2010, points 4.145 to 4.167)

↓ 138/2004 (adapted)

3.088. The only capital transfers recorded in the EAA are receivable capital transfers, ⌦ that is to say, ⌫ investment grants and other capital transfers. These distributive transactions are recorded in the capital account (⌦ see points ⌫ 1.41 and 1.48).

1. Investment grants

↓ 2019/280 Art. 1 and Annex I.6(uu) (adapted)

3.089. Investment grants are capital transfers, in cash or kind, effected by general government or the rest of the world to other resident or non-resident institutional units with the aim of financing, in part or in full, the cost of acquiring fixed capital goods (⌦ see ⌫ ESA 2010, point 4.152). Investment grants from the rest of the world comprise those granted directly by the institutions of the Union via the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(vv)

3.090. Interest subsidies are not included under investment grants (⌦ see point ⌫ 3.064), even if they are intended to facilitate investment transactions. It should be remembered, however, that if a grant also contributes to financing debt retirement and the payment of interest on the capital and if it is not possible to separate it from these two components, then the grant should be recorded in its entirety as an investment grant.

3.091. ➔1 The most important types of other grants made by the EAGF, EAFRD and investment grants for agriculture are: ←

– grants for restructuring orchards or vineyards, in so far as they are the subject of a replanting obligation (⌦ see point ⌫ 3.067),

– reimbursement, for account of general government, of loans contracted by production units to finance their investment,

– start-up grants to young farmers to help them finance the acquisition of assets.

↓ 2019/280 Art. 1 and Annex I.6(ww) (adapted)

3.092. Investment grants in cash should be recorded when payment is due to be made. Investment grants in kind are recorded when the ownership of the asset is transferred (⌦ see ⌫ ESA 2010, point 4.162).

↓ 138/2004

2. Other capital transfers

↓ 2019/280 Art. 1 and Annex I.6(xx)

3.093. Other capital transfers cover transfers other than investment grants and capital taxes which do not themselves redistribute income but redistribute saving or wealth among the different sectors or subsectors of the economy or the rest of the world. They can be made in cash or in kind (cases of debt assumption or debt cancellation) and correspond to voluntary transfers of wealth (ESA 2010, point 4.164).

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.6(yy)

3.094. Other capital transfers differ from investment grants in two aspects:

– only general government may pay out investment grants whereas all institutional units may pay out other capital transfers,

– investment grants are limited to payments associated with the acquisition of a fixed asset whereas other capital transfers can be linked to any form of transfer of saving or assets between units.

3.095. Other capital transfers may take the form of compensation, by general government or by the rest of the world, to owners of capital goods that had been destroyed by acts of war or natural disasters, such as floods, etc. ➔1 They also include transfers from general government to cover losses accumulated over several financial years or exceptional losses from causes beyond the control of the enterprise (⌦ see ⌫ ESA 2010, point 4.165). ←

↓ 2019/280 Art. 1 and Annex I.6(zz) (adapted)

3.096. In the case of agriculture, other capital transfers also include:

- grants for the permanent abandonment of orchards or vineyards,
- grants for the cessation or reduction of milk production (in so far as they affect, explicitly or implicitly, the value of quotas),
- compensation for exceptional and catastrophic losses of fixed capital goods used in the production of agricultural goods (⌦ for example, ⌫ animals and equipment) (⌦ see points ⌫ 2.045 and 3.067),
- start-up grants to young farmers for purposes other than financing the acquisition of assets,
- grants to compensate for ⌦ the ⌫ reduction of the value of assets or to reduce debts,
- major payments in compensation for damage or injuries not covered by insurance policies (except payments by general government or by the rest of the world described in ESA 2010 under point 4.165(a)) awarded by courts of law or settled out of court, for example payments for compensation for damage caused by major explosions, oil spillages, etc. (ESA 2010, point 4.165(h)).

↓ 138/2004

3.097. Other capital transfers in cash are recorded when payment is due (and, in the case of transfers in kind, when ownership of the asset is transferred or when the debt is cancelled by the creditor).

H. CONSUMPTION OF FIXED CAPITAL

↓ 2019/280 Art. 1 and Annex I.6(aaa) (adapted)

(⌦ see ⌫ ESA 2010, points 3.139 ⌦ to ⌫ 3.145)

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.6(bbb)
→2 2019/280 Art. 1 and Annex I.7
→3 2019/280 Art. 1 and Annex I.1(a)

3.098. The foreseeable wear and tear and obsolescence of fixed capital goods over the accounting period represent a charge which is implicit so long as the item is not replaced by a new acquisition. This wear and tear and obsolescence are measured by fixed capital consumption. Its inclusion under ‘uses’ in the production account allows expenditure on fixed capital formation to be distributed over the entire period of use.

3.099. If the economic life of the means of production is more than one year, the consumption of fixed capital represents the amount of fixed capital used up in the production process during the accounting period as a result of normal wear and tear and foreseeable obsolescence[45]. If, on the other hand, the means of production used have an economic life of less than one year, the wear and tear is recorded as intermediate consumption.

3.100. All fixed capital goods (⌦ that is to say, ⌫ products) are the subject of consumption of fixed capital (although some flexibility is required in specific cases; ⌦ see point ⌫ 3.105). This includes tangible and intangible fixed assets, major improvements to non-produced assets and the costs associated with the transfer of ownership. The consumption of fixed capital is not calculated for either stocks or work in progress, or for non-produced assets such as land, underground deposits and patented assets.

3.101. The consumption of fixed capital is only one component of the change in the value of assets (together with GFCF, other changes in volume and nominal holding gains (net of losses); ⌦ see point ⌫ 2.134). In particular, the consumption of fixed capital does not include other changes in the volume of assets (other than those due to GFCF):

– exceptional losses due to disasters (earthquakes, war, drought, epidemics, etc.),

– unforeseeable obsolescence, which is the difference between provisions made in the consumption of fixed capital for normal wear and tear and actual losses, accidental events causing depreciation greater than that accounted for on the basis of the anticipated consumption of fixed capital,

– changes in the classification of fixed assets, ⌦ that is to say, ⌫ changes in their economic use, as in the case of farming land or buildings converted for private use or a different economic use.

3.102. The consumption of fixed capital, which has to be distinguished from depreciation calculated for fiscal purposes and that appearing in the company accounts, should be evaluated on the basis of stocks of fixed capital goods and the (average) probable economic life of the various categories of goods in question. If no information on the stock of fixed capital goods is available, it is recommended that it be calculated using the perpetual inventory method and that its acquisition price in the reference period be evaluated (⌦ that is to say, ⌫ the replacement value of the assets during the reference year, not on the basis of historic values). The replacement value is ascertained from the prices which holders have to pay, during any given reference period, to replace a fixed capital good by a new one which resembles it as closely as possible. It is necessary to proceed in this manner in order to calculate net domestic product correctly.

3.103. The consumption of fixed capital is calculated using the linear depreciation method, ⌦ that is to say, ⌫ by attributing the value of the fixed capital good in question evenly throughout the period in which it is used. The rate of depreciation is defined by the formula 100/n, where 'n' represents the probable economic life of this category in years ('n' may vary from one country to another and over time). The rate

[45] Including a provision for losses of fixed capital goods as a result of accidental damage which can be insured against. The value of these provisions to be recorded is the value of the net premiums paid in respect of insured fixed capital goods.

of depreciation can, in certain cases, be geometric. In view of the use of the current replacement price and the fixed rate of consumption of fixed capital, the consumption of fixed capital varies from year to year unless the purchaser prices remain unchanged throughout the entire normal economic life of the asset.

3.104. The consumption of fixed capital in the form of the costs associated with the transfer of the ownership of produced tangible and intangible assets should be calculated on the basis of an average economic life, conventionally put at one year.

3.105. The consumption of fixed capital in animals corresponds to the anticipated decline in the productivity of animals if they are used for production purposes (milk, wool, etc.), which is reflected in the current value of future income obtainable form these animals. As the value of future income from productive animals declines over time, the animals will have to become the object of consumption of fixed capital. Given the practical difficulties of calculating the consumption of fixed capital for this type of asset, however, it was felt that the consumption of fixed capital should not be calculated for productive animals. The decision to exclude animals from this calculation was based on the following considerations:

– depreciation in terms of productivity and economic value is linked to age but is not a direct, regular and continuous function of it, as is otherwise implicitly the case for depreciation,

– the withdrawal of animals from the productive herd may be a function of the economic environment (changes in the prices obtainable for slaughtered animals and the prices of animal feedingstuffs, etc.).

3.106. Although these considerations are not a hindrance to calculating the consumption of fixed capital for livestock, they do make such calculations very complicated in terms of adequate definitions of average life and rates of consumption of fixed capital. Otherwise, it would be difficult to ensure consistency between forecast and actual average depreciation of animals. ➔1 This treatment also ensures compatibility between the EAA and the ESA 2010 (⌦ see ⌫ ESA 2010, point 3.140) and microeconomic accounts of the farm accountancy data network and obviates the need to distinguish between livestock having the character of fixed capital goods and livestock having the character of stock. ←

IV. AGRICULTURAL LABOUR INPUT

4.01. Agricultural employment covers all persons — both employees and self-employed — providing salaried and non-salaried labour input to the resident units performing characteristic activities (agricultural and inseparable non-agricultural secondary activities) of the agricultural industry of the EAA.

All persons of retiring age who continue to work on the holding are included in agricultural employment.

Persons having not reached school-leaving age are not included.

4.02. Employees are defined as all persons who, by agreement, work for another resident institutional unit (which is an agricultural unit) and receive a remuneration (recorded as compensation of employees, ⌦ see ⌫ Section C of Chapter III). The labour input provided by employees is referred to as salaried labour input. By convention, labour of non-family workers is classified as salaried labour input. When an

agricultural unit is organised as a conventional company (⌦ see point ⌫ 5.09), all the labour input performed is classified as salaried labour input.

4.03. Self-employed persons are defined as persons who are the sole owners, or joint owners, of the unincorporated enterprises in which they work. The labour input provided by self-employed persons is referred to as non-salaried labour input. Members of the holder's family who do not receive a compensation which is predefined and calculated according to their actual work are classified as self-employed.

4.04. In the case of specific companies (⌦ see ⌫ Section B of Chapter V), the labour input of workers is treated in the same manner as in unincorporated enterprises (sole proprietorships). The directors/shareholders share in the mixed income of the unit (non-salaried labour input), whilst their employees receive a remuneration (salaried labour input).

4.05. Total hours worked represent the aggregate number of hours actually worked as an employee or self-employed for resident agricultural units, during the accounting period.

4.06. ➔2 A description of what total hours worked include and exclude can be found in ESA 2010 (points 11.27 and 11.28). 🡐 Total hours worked do not cover work for the private household of the holder or manager.

4.07. Annual work units (AWUs) are defined as full-time equivalent employment (corresponding to the number of full-time equivalent jobs), ⌦ that is to say, ⌫ as total hours worked divided by the average annual number of hours worked in full-time jobs within the economic territory.

4.08. One person cannot represent more than one AWU. This constraint holds even if someone is working in the agricultural industry for more than the number of hours defining full time.

4.09. The agricultural labour input of persons who work less than full time on agricultural holdings is calculated as the quotient of the number of hours actually worked (per week or per year) and the number of hours actually worked (per week or per year) in a full-time job.

4.10. The number of hours actually worked in a full-time job is not necessarily the same for all categories of labour. It is possible that the number of hours comprising a full-time job used for self-employed persons is greater than that used for employees. For in the latter case, the maximum number of hours to be worked are laid down in a contract.

4.11. The number of hours worked by a person is not to be adjusted by some coefficient because of age (⌦ that is to say, ⌫ under 16 or over 65) or gender. Equality must be applied. 'Full-time' is determined by the number of hours worked and not as an evaluation of an amount and/or a quality produced.

4.12. Unless there are reasons for preferring alternative sources, the AWU representing full-time work in agriculture should be based on the current definition in the ~~Community~~ ⌦ Union ⌫ surveys on the structure of agricultural holdings, as the minimum hours required by the national provisions governing contracts of employment. If these do not indicate the number of annual hours then 1 800 hours is to be taken as the minimum figure (225 working days of eight hours per day).

V. AGRICULTURAL INCOME INDICATORS

5.01. One of the principal objectives of the EAA is to measure agricultural income and changes therein.

A. DEFINITION OF INCOME AND BALANCING ITEMS

5.02. Income can be defined as the maximum amount which the beneficiary can consume over a given period without reducing the volume of ⌦ the beneficiary's ⌫ assets. It can also be defined as being the total of the consumption and change in value of assets held over a given period, all other things being equal, as income represents what could have been consumed. The distinction made in the ➔3 ESA 2010 🡐 between current accounts and the capital account enables maximum potential consumption to be studied using the measure of consumption and saving in the current accounts and that of the change in the value of assets in the capital account.

5.03. The sequence of accounts (⌦ see point ⌫ 1.43) of the agricultural industry makes it possible to calculate three balancing items which can be used as an income aggregate for the agricultural industry: net value added, net operating surplus (net mixed income) and net entrepreneurial income. The relationship between these items is set out in the following:

🡓 2019/280 Art. 1 and Annex I.8(a)

Production account			Generation of income account			Entrepreneurial income account		
P.1		Output	B.1n		Net value added	B.2n B.3n		Net operating surplus/net mixed income
P.2	–	Intermediate consumption	D.1	–	Compensation of employees	D.41	+	Interest receivable[46]
P.51c	–	Consumption of fixed capital	D.29	–	Other taxes on production	D.41	–	Interest payable
			D.39	+	Other subsidies on production	D.45	–	Rent paid
B.1n	=	Net value added	B.2n B.3n	=	Net operating surplus/net mixed income	B.4n	=	Net entrepreneurial income
D.29	–	Other taxes on production						

[46] Only interest received by agricultural units organised as companies.

D.39	+	Other subsidies on production						
	=	Net value added at factor cost/factor income						

↓ 138/2004 (adapted)

5.04. Net value added of the industry measures the value created by all the agricultural LKAUs, after the consumption of fixed capital. Given that output is valued at basic prices and intermediate consumption is valued at purchaser prices, net value added contains subsidies on products less taxes on products. Net value added at factor cost (defined as net value added at basic prices less other taxes on production plus other subsidies on production) measures the remuneration of all factors of production (land, capital, labour) and can be termed 'factor income', as it represents all the value generated by a unit engaged in a production activity.

5.05. Net operating surplus measures the yield from land, capital and non-salaried labour. It is the balance of the generation of income account which indicates the distribution of income between the factors of production and the general government sector. The net value added and net operating surplus are calculated for the industries.

5.06. Net entrepreneurial income, obtained by adding the interest received by agricultural units organised as companies to the net operating surplus and then deducting rent (⌦ that is to say, ⌫ farm and land rents) and interest payments, measures the compensation of non-salaried labour, remuneration from land belonging to units and the yield arising from the use of capital. It is similar to the corporate-accounting concept of current profit before distribution and taxes on income. Although net entrepreneurial income is not always calculated for industries, it can generally be evaluated for the agricultural industry as it is possible to determine the part of interest and rents linked exclusively to agricultural activity (and to secondary, non-agricultural activities).

5.07. In the case of sole proprietorships, entrepreneurial income represents, on the one hand, the compensation of the work performed by the agricultural holder (and the work of non-salaried family members) and, on the other hand, the income remaining with the enterprise, without it being possible to separate these two components (the term 'holder' as used here naturally refers to all persons who run sole proprietorships in this industry). It is, therefore, a mixed income. Like any other industry, however, the agricultural industry comprises production units that belong to different types of institutional units: companies and sole proprietorships. There is a difference between entrepreneurial income generated by sole proprietorships and that generated by units organised as companies. In the latter case, it represents 'straight' entrepreneurial income as it excludes any labour income (compensation of work has to be regarded as compensation of paid labour even if it relates to the administrators and shareholders of the company).

5.08. It has to be borne in mind that the income aggregates, obtained as balancing items of the sequence of accounts of the industry, are not indicators of total income or of the disposable income of households employed in agriculture, because the latter, in addition to their purely agricultural incomes, may also have income from other sources (non-agricultural activities, remuneration, social benefits, income from property). In other words, agricultural income must not be regarded as farmers' income. Moreover, this measure of income relates to the income generated by agricultural activities (as well as inseparable non-agricultural secondary activities) over a given accounting period, even though in certain cases the corresponding revenues will not be received until a later date. It does not, therefore, constitute the income effectively received in the course of the accounting period itself.

B. TREATMENT OF THE INCOME OF UNITS ORGANISED ON A CORPORATE BASIS

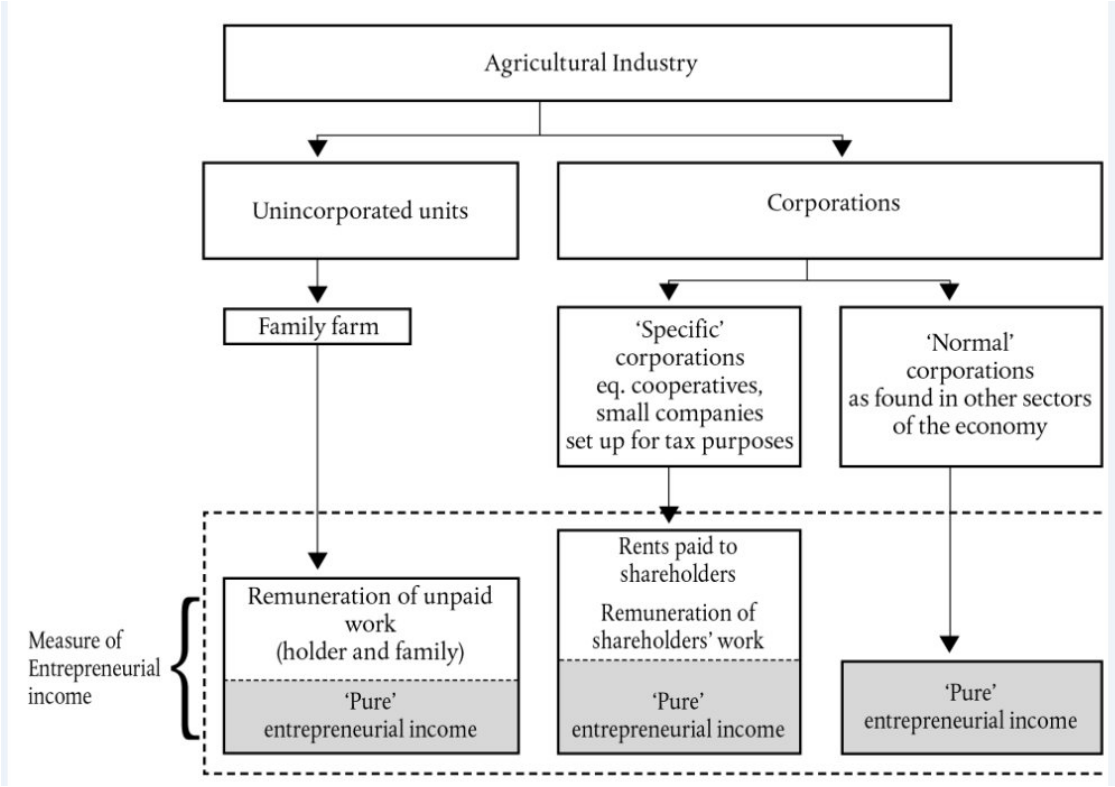
5.09. Sole proprietorships (or family holdings) are the most common form of agricultural units in the Union. However, some agricultural production units may be organised on a corporate basis and may take the form either of conventional companies (⌦ that is to say, ⌫ their organisational set-up is similar to that of companies which exist in other sectors of the economy) or of companies having more specific characteristics (as, for example, in the case of a farmer who, for tax reasons, creates a specific separate company for the commercial part of ⌦ the farmer's ⌫ economic activity, or of a group of farmers who form an association with the aim of pooling land and labour within the framework of certain types of cooperatives).

5.10. The net entrepreneurial income of the agricultural industry is thus made up of the following three components:

- the 'mixed' entrepreneurial income of sole proprietorships (unincorporated enterprises),
- the 'straight' (pure) entrepreneurial income of 'conventional' companies,
- the 'mixed' entrepreneurial income of companies specific to the agricultural industry.

These three components are set out in the chart under ⌦ point ⌫ 5.11.

5.11. 'Straight' entrepreneurial income must exclude any compensation of employees as well as any rents paid prior to the distribution of profits. For most companies specific to agriculture, however, it is difficult to separate the remuneration of shareholders, for land and labour inputs, from profit distribution. It is recommended, therefore, that the yardstick for measuring agricultural entrepreneurial income should refer to 'mixed' income for this type of agricultural unit, ⌦ that is to say, ⌫ it should include the compensation of shareholder employees for their work as well as rents. Remuneration and rents should not, therefore, be deducted from the calculation of entrepreneurial income in the case of these specific companies. For the calculation of entrepreneurial income, they are thus assimilated to a group of sole proprietorships. On the other hand, in the case of 'conventional' companies the distinction between remuneration and profit distribution must be made clearly.



C. DEFINITION OF THE AGRICULTURAL INCOME INDICATORS

5.12. The three agricultural income indicators can be described as follows:

– indicator A: index of the real income of factors in agriculture per AWU

This yardstick corresponds to the real net value added at factor cost of agriculture per total AWU[47].

– indicator B: index of real net agricultural entrepreneurial income, per non-salaried AWU

This indicator presents the changes in net entrepreneurial income over time, per non-salaried AWU. Converted into the form of an index for each Member State, it provides information on trends rather than on income levels. It is most useful in those countries where agriculture is organised in the form of sole proprietorships. On the other hand, in view of the existence of 'conventional' companies which generate entrepreneurial income exclusively with paid labour, indicator B is overestimated in comparison with a notion of individual income. This drawback may prevent a comparison of income levels between Member States if the proportions of 'conventional' companies differ very much,

[47] In order to take into account part-time and seasonal work, agricultural employment or changes therein are measured in AWUs (see Chapter IV for more details). A distinction is drawn between non-salaried and salaried AWUs, which together make up total AWUs.

– indicator C: net entrepreneurial income of agriculture

This income aggregate is presented as an absolute value[48] (or in the form of an index in real terms). It allows comparability over time of the income of the agricultural industry between Member States.

D. AGGREGATION OF INCOME INDICATORS FOR THE UNION

5.13. Indices and rates of change for the Union as a whole can be calculated either as weighted averages of the national indices or rates of change, or directly on the basis of EU aggregates obtained by converting national data into euro or into purchasing power standards (PPS). In both cases, a base year has to be chosen; either the year used to determine the shares included from the various ⌦ Member States ⌫ in the calculation of the ~~Community~~ ⌦ Union ⌫ averages, or the year whose exchange rates were used to calculate the aggregates.

5.14. Slightly different methods and different base years are used depending on whether the calculations represent an analysis of a short-term trend (changes in year 'n' compared with year 'n-1') or of a long-term trend (generally from 1980 to year n).

5.15. For the analysis of a short-term trend, the rates of change of the nominal or real income indicators of the Union for year n compared with year n-1 are calculated as weighted averages of the corresponding rates of change estimated in the Member States, the weighting coefficients being calculated on the basis of the income aggregates for year n-1, converted into euro at the exchange rates of year n-1; these coefficients are naturally specific for each aggregate. This method based on year n-1 appears the most appropriate for a short-term analysis, and is the one that is most consistent with that used by individual Member States.

↓ 2019/280 Art. 1 and Annex I.8(b) (adapted)

5.16. For analysis of the long-term trend, the indices and rates of change of the income indicators for the Union are calculated on the basis of the EU aggregates expressed in euro at fixed exchange rates: for values expressed in real terms (⌦ that is to say, ⌫ after deduction of the effect of the average rise in prices), the deflators used are also based on a fixed base year.

↓ 138/2004 (adapted)

E. DEFLATION OF INCOME INDICATORS

5.17. For each Member State, the indices and the changes, in real terms, of the values of the income indicators are obtained by deflating the corresponding nominal data with the implicit price index of GDP.

5.18. Important factors such as reliability and comparability are points in favour of using this deflator. The implicit price index of GDP is a general price indicator for all goods, products and services throughout the economy. The price index of national final uses also comes into consideration as a deflator. Unlike the GDP price index, it

[48] This measure of income corresponds to the former measure 'net income from family agricultural activity' for sole proprietorships.

takes the effect of external trade equally and directly into account and thus reflects more quickly and clearly any charges in the prices of imports (⌦ for example, ⌫ energy price movements). Nevertheless, in order to safeguard comparability with other statistics compiled by the European Commission, it was decided not to introduce a new deflator.

5.19. Real income aggregates for the Union as a whole are obtained by first deflating the nominal values (at current prices) recorded in the various Member States, applying the implicit price index of GDP of the particular Member State concerned, and then converting them into euro (at 1995 exchange rates for long-term analysis and at those of year n-1 for the short-term trend, as indicated above). The results are thus added up so as to obtain the real values for the Union. It is on the basis of these aggregates in real terms that the indices and rates of change for the Union are calculated, which means that an '⌦ Union ⌫ deflator' is never explicitly involved.

VI. VALUATION OF EAA AT CONSTANT PRICES

A. PRICE AND VOLUME MEASURES

↓ 2019/280 Art. 1 and Annex I.9(a) (adapted)

(⌦ see ⌫ ESA 2010, Chapter 10)

↓ 138/2004 (adapted)
➔1 2019/280 Art. 1 and Annex I.9(b)
➔2 2019/280 Art. 1 and Annex I.1(a)
➔3 2019/280 Art. 1 and Annex I.9(c)
➔4 2019/280 Art. 1 and Annex I.9(d)

6.01. For the purposes of economic analysis, when looking at how values change, it is useful to distinguish between those value changes due to changes in volume and those due to changes in price. ➔1 The ESA 2010 (points 10.13 to 10.23) clearly states that the price component should only include changes relating to prices and that all other changes should be included in the volume component. ← Thus, differences in quality between products (physical characteristics, types of retail outlet, etc.) are to be taken into account as volume and not price changes.

6.02. For many goods and services there exist several variations which differ in quality. The ➔2 ESA 2010 ← defines several factors which give rise to differences in quality, but the most important for the EAA is that linked to physical characteristics. This recognises that within the definition of a given product, there may be physical differences which imply that the physical units (⌦ for example, ⌫ one tonne) are not identical in an economic sense. An example of this is with two tonnes of grain sold in two consecutive years. In year one all the grain is of milling quality, in year two, less than half is of milling quality, the rest is sold for feed. This means that the average quality of the grain has fallen. ➔3 The other difference in quality, important for the EAA, is that of a shift in sales of a product between two differently priced

markets, ⌦ for example, ⌫ domestic and external, industrial use and sales to consumers (⌦ see ⌫ ESA 2010, points 10.13 to 10.18). ←

6.03. The indicators of volume and price used to compile data at constant prices have to take account of changes in quality. It is therefore recommended that work is conducted at the greatest level of detail in order to get as close as possible to entirely homogeneous elementary products. If the elementary products are entirely homogeneous, changes in volume can be estimated on the basis of changes in quantity.

6.04. However, statistical information is often only available at a more aggregated level and therefore no longer concerns strictly homogeneous products. →4 In this case, the ESA 2010 (point 10.32) states that it is preferable to deflate the value for the current year by a suitable price index to estimate changes in volume (ESA 2010, point 10.01). ←

6.05. The level of detail for which the index used is assumed to be an elementary index (the product under investigation is thus considered as homogeneous) is called the elementary level of aggregation. In the EAA, the elementary level of aggregation corresponds at least to the most disaggregated level of the nomenclature within the data transmission table. A greater level of detail is, however, desirable for compiling price indices.

6.06. For each aggregate of goods and services shown in the accounts, price and quantity measures have to be constructed so that:

value index = price index × volume index

↓ 2019/280 Art. 1 and Annex I.9(e) (adapted)

This means that each and every change in the value of a given flow must be attributed to either a price change or a change in volume or a combination of the two (⌦ see ⌫ ESA 2010, point 10.12).

↓ 138/2004

6.07. The systematic breakdown of the changes in current value into the components ‘changes in price’ and ‘changes in volume’ is restricted to flows representing transactions of goods and services and to elements concerned in the valuation of these transactions (output, intermediate consumption, consumption of fixed capital, gross value added, net value added, GFCF, change in stocks, taxes and subsidies on products).

B. PRINCIPLES AND METHOD FOR COMPILING EAA AT CONSTANT PRICES

1. *Choice of index formula*

↓ 138/2004 →1 2019/280 Art. 1 and Annex I.9(g)

6.08. →1 In accordance with ESA 2010 (point 10.20), in the EAA, changes in volume are measured using Laspeyres-type indices and changes in price are measured using Paasche-type indices. ←

Laspeyres volume index:

$$L(q) = \frac{\sum p_0 q_n}{\sum p_0 q_0} = \frac{\sum p_0 q_0 \frac{q_n}{q_0}}{\sum p_0 q_0} = \frac{\sum V_0 \frac{q_n}{q_0}}{\sum V_0}$$

Paasche price index:

$$P(p) = \frac{\sum q_n p_n}{\sum q_n p_0} = \frac{\sum p_0 q_n \frac{p_n}{p_0}}{\sum p_0 q_n}$$

For each elementary product:

—	p_0	:	represents the price recorded in the base year 0,
—	p_n	:	represents price recorded in year n,
—	q_0	:	represents the quantity recorded in the base year 0,
—	q_n	:	represents the quantity recorded in year n,
—	V_0	:	represents the value recorded in the base year 0: ($V_0 = p_0 q_0$).

2. *Base year*

6.09. Changes in volume are measured using Laspeyres-type indices: changes in the quantities of elementary series are therefore weighted by the value in the base year. Changes in price are measured using Paasche-type indices: changes in the prices of elementary series are therefore weighted by the value in the current year at the prices for the base year.

6.10. The base year is the year from which the prices are used to compile the weighting scheme.

6.11. The most accurate way to measure changes in volume from one year to another is to use the most recent base year available. This approach guarantees that weightings are relatively up-to-date and avoids problems linked to weighting products that are no longer produced and new products that have emerged. It is for this reason that the EAA measures changes in volume using the weightings for the preceding year.

↓ 2019/280 Art. 1 and Annex I.9(h)

6.12. The year used for submitting and presenting data at constant prices can be different from the base year; it is called the reference year. In a series of indices, the reference year is the one that takes the value 100.

↓ 2019/280 Art. 1 and Annex I.9(i) (adapted)

6.13. Series of volume indices in the prices of a reference year are obtained by chaining indices calculated in the prices of the preceding year (⌦ see ⌫ ESA 2010, point 10.20).

↓ 138/2004

6.14. It is important that a change of reference year has no effect on the changes in volume with respect to the preceding year. It is for this reason that EAA data are presented in relation to a fixed reference year by re-referencing each variable separately, regardless of whether these are aggregates or elementary indices.

↓ 2019/280 Art. 1 and Annex I.9(j) (adapted)

6.15. Example:

Let us consider two homogeneous elementary products, A and B. The following series are based on the price structure for the preceding year:

	n P n	n – n + 1 volume index	n + 1 P n	n – n + 1 price index	n + 1P n + 1	n + 1 – n + 2 volume index	n + 2P n + 1	n + 2 – n + 1 price index	n + 2P n + 2
A	100	105,0	105	110,0	115	102,0	117	108,0	126
B	300	110,0	330	95,0	314	90,0	283	105,0	297
Total	400	108,8	435	98,6	429	93,2	400	105,8	423

The volume and price indices for the whole (A + B) depend on the weighting given to each product, A and B.

If these series are expressed in relation to a fixed reference year (⌦ for example, ⌫ n), the only way to retain the same n/n-1 volume indices is to chain the indices separately. This gives the following series (base equal to 100 in n):

	n	n + 1	n + 2
A	100	105,0	107,1
B	100	110,0	99,0
Total	100	108,8	101,4

(101,4 = 108,8 * 93,2/100)

The values at constant prices expressed in relation to the reference year n are:

	n	n + 1	n + 2
A	100	105	107,1
B	300	330	297,0
Total	400	435	405,6

(405,6 = 400 * 101,4/100)

As a result, the account is no longer additive. Adding the values at constant prices for A and B gives the following series:

	n	n + 1	n + 2
A + B	400	435	404,1

Other than in the year following the reference year, the re-referenced series are not additive.

🡻 138/2004
➔1 2019/280 Art. 1 and Annex I.9(k)

6.16. ➔1 According to ESA 2010 (point 10.23), the non-additive constant price data are published without any adjustment[49]. 🡸 This is also the approach taken by the EAA. It is to be explained to users, however, that the tables are not additive.

[49] This does not preclude the possibility that there may be circumstances in which compilers may judge it preferable to eliminate the discrepancies in order to improve the overall consistency of the data.

↓ 2019/280 Art. 1 and Annex I.9(l)

4. Calculation of value added at fixed year prices

↓ 138/2004 (adapted)
→1 2019/280 Art. 1 and Annex I.9(m)

6.17. Value added constitutes the balancing item of the production account. As such, it is not possible to split value added directly into a price component and a volume component. →1 The theoretically correct method for calculating value added at fixed year prices is to carry out 'double deflation' (⌦ see ⌫ ESA 2010, points 10.31 ⌦ and ⌫ 10.32). ←

6.18. Gross value added expressed in the prices of the preceding year is therefore defined as the difference between output measured in the prices of the preceding year and intermediate consumption measured in the prices of the preceding year. Net value added in the prices of the preceding year is defined as the difference between gross value added in the prices of the preceding year and consumption of fixed capital in the prices of the preceding year. The value added in prices of a fixed reference year is obtained by re-referencing.

↓ 2019/280 Art. 1 and Annex I.9(n)

6.19. Example:

A series of current values and values in the prices of the preceding year (volumes) concerning output and intermediate consumption is set out below:

	n P n	n + 1 P n	n + 1 P n + 1	n + 2 P n + 1	n + 2 P n + 2
Output	150	160	170	180	200
Intermediate consumption	40	30	35	40	45

The value added in volume terms is obtained by deducting the volume of intermediate consumption from the volume of output. The following series is derived:

	n P n	n + 1 P n	n + 1 P n + 1	n + 2 P n + 1	n + 2 P n + 2
Gross value added	110	130	135	140	155

In this way, the following volume indices in the prices of the preceding year are obtained:

	n + 1	n + 2
Gross value added	118,2	103,7

(118,2 = 130/110 * 100) (103,7 = 140/135 * 100)

The gross value added of a particular year in prices of year n (fixed year prices) is derived by multiplying the current value for n by the volume chain index.

VA n + 1 (in n prices) = 110 * 1,182 = 130

VA n + 2 (in n prices) = 110 * 1,182 * 1,037 = 135.

↓ 138/2004

5. Breakdown of taxes and subsidies on products into volume and price components

6.20. The breakdown of valuations at basic price into respective volume and price components presupposes that this breakdown also applies to the taxes and subsidies on products. The choice made in the EAA is the following one:

6.21. The volume index of the subsidy (or the tax) on product is identical to the volume index of the output at the producer price. In this case, the volume index of the output is the same whether expressed in the producer price or in the basic price.

6.22. This solution has another advantage: the volume index is independent of the method of valuation. Consequently, the interpretation of the price and volume indices at the basic price, is straightforward: for a perfectly homogeneous basic product, the volume index is identical to the quantity index; the price index reflects the change in the average basic price.

6.23. Example:

For a given product, the value of output at the producer price in year n is 1 000; the value of output in year n+1 is 900. The volume index of output is 102.

This product is subsidised. The value of the subsidy for year n is 100; the value of the subsidy for year n+1 is 150.

The volume/price breakdown of the subsidy is carried out in the following way:

	Value n	n+1/n volume index	Volume n+1	n+1/n price index	Value n+1
Output at producer prices	1 000	102,0	1 020	88,2	900
Subsidy on products	100	102,0	102	147,0	150
Output at basic prices	1 100	102,0	1 122	93,6	1 050

The volume index of the subsidy is the same as that of the output at the producer price.

↓ 2022/590 Art. 1.4 and Annex I.6 (adapted)

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, point 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 (⌦ see points ⌫ 1.60 to 1.65) 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 (⌦ see point ⌫ 7.08). The economic territory of a country is divided into regional territories and the extra-regio territory (ESA 2010, point 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, ⌦ that is to say, ⌫:

(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, ⌦ that is to say, ⌫ 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, point 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 (⌦ see points ⌫ 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 (⌦ see points ⌫ 1.15 and 1.16, ⌦ and ⌫ 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 (⌦ see point ⌫ 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 (⌦ for example, ⌫ kitchen gardens and private livestock rearing). In contrast, units engaged in subsistence farming are included in the EAA (⌦ see point ⌫ 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 2010 (points 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, ⌦ for example, ⌫ 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, ⌦ that is to say, ⌫ 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, point 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 (⌦ see point ⌫ 1.59). The agricultural industry, as described in the EAA, corresponds, in principle, to Division 01 in NACE Revision 2, with differences shown in ⌦ points ⌫ 1.62 to 1.65. 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 (⌦ see point ⌫ 1.90).

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 (⌦ see point ⌫ 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[50]; 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)[51];

(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 (⌦ see point ⌫ 2.083), ⌦ that is to say, ⌫ 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 (⌦ see points ⌫ 2.097 to 2.110).

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 (⌦ see points ⌫ 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

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50 As long as the corresponding sales and purchases fall in the same accounting period.

51 The purchase of an animal is never to be recorded as intermediate consumption (basically, it is an acquisition of work in progress, see point 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.

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, point 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) (⌦ see points ⌫ 2.109 to 2.115).

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 1 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, point 13.33).

7.34. New assets being included in fixed capital are entered gross, ⌦ that is to say, ⌫ 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, ⌦ for example, ⌫ 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 (⌦ see points ⌫ 3.124 to 3.138) and ⌦ points ⌫ 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 (⌦ see point ⌫ 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 (⌦ see point ⌫ 2.172).

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, ⌦ that is to say, ⌫ 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 (⌦ see point ⌫ 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 (⌦ see point ⌫ 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), ⌦ that is to say, ⌫ 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 (⌦ see point ⌫ 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 (⌦ see point ⌫ 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 (⌦ see ⌫ ESA 2010, point 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, ⌦ that is to say, ⌫ 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 (⌦ see points ⌫ 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[52].

[52] In accordance with the method used, the intra-unit consumption shall be adjusted to the EAA values.

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[53]. 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

[53] Imported agricultural products (except animals) are excluded.

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.

↓ 2022/590 Art. 1.5 and 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			
Item	List of variables	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)
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
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	FORAGE PLANTS	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
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	—
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	—
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
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
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
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
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			
Item	List of variables	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)
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			
Item	List of variables	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)
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

		Transmission concerning reference year n			
Item	List of variables	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		
Item	List of variables	a	b	c
		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

↑

ANNEX III

Repealed Regulation with list of the successive amendments thereto

Regulation (EC) No 138/2004 of the European Parliament and of the Council (OJ L 33, 5.2.2004, p. 1, ELI: http://data.europa.eu/eli/reg/2004/138/oj)	
Commission Regulation (EC) No 306/2005 (OJ L 52, 25.2.2005, p. 9, ELI: http://data.europa.eu/eli/reg/2005/306/oj)	
Commission Regulation (EC) No 909/2006 (OJ L 168, 21.6.2006, p. 14, ELI: http://data.europa.eu/eli/reg/2006/909/oj)	
Commission Regulation (EC) No 212/2008 (OJ L 65, 8.3.2008, p. 5, ELI: http://data.europa.eu/eli/reg/2008/212/oj)	
Regulation (EC) No 1137/2008 of the European Parliament and of the Council (OJ L 311, 21.11.2008, p. 1, ELI: http://data.europa.eu/eli/reg/2008/1137/oj)	Only point 5.5 of the Annex
Regulation (EU) No 1350/2013 of the European Parliament and of the Council (OJ L 351, 21.12.2013, p. 1, ELI: http://data.europa.eu/eli/reg/2013/1350/oj)	Only point 2 of the Annex
Commission Delegated Regulation (EU) 2019/280 (OJ L 47, 19.2.2019, p. 7, ELI: http://data.europa.eu/eli/reg_del/2019/280/oj)	
Regulation (EU) 2022/590 of the European Parliament and of the Council (OJ L 114, 12.4.2022, p. 1, ELI: http://data.europa.eu/eli/reg/2022/590/oj)	

ANNEX IV

CORRELATION TABLE

Regulation (EC) No 138/2004	This Regulation
Articles 1, 2 and 3	Articles 1, 2 and 3
Article 3a	Article 4
Article 3b	Article 5
Article 4	Article 6
Article 4a	Article 7
Article 4b	Article 8
Article 5	Article 9
Annexes I and II	Annexes I and II
–	Annex III
–	Annex IV