



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR AGRICULTURE AND RURAL DEVELOPMENT

Directorate L. Economic analysis, perspectives and evaluations

RESULT INDICATORS

DRAFT – WORK IN PROGRESS

**FOR DISCUSSION IN THE
EXPERT GROUP ON MONITORING AND EVALUATING THE CAP**

17 DECEMBER 2013

RESULT INDICATORS

1. *Share of direct support in agricultural income*
2. *Variability of farm income*
3. *Value added for primary producers in the food chain*
4. *EU agricultural exports*
5. *Public intervention*
6. *Private storage*
7. *Export refunds*
8. *EU commodity prices compared to world prices*
9. *Value of production under EU quality schemes*
10. *Importance of organic farming*
11. *Crop diversity*
12. *Share of grassland in agricultural land*
13. *Share of EFA in agricultural land*
14. *Share of eligible land under greening practices*
- ~~13-15.~~ *Net greenhouse gas emissions from agricultural soils*
- ~~14-16.~~ *Structural diversity*

FICHE CONTENTS

Indicator Name	<i>Title of the indicator which will be used in implementing regulation/guidance documents</i>
Related specific objective(s)	<i>Identification of the specific objective(s) as defined in the CAP intervention logic</i>
Definition	<i>Concise definition of the concept, including if the indicator already exists, e.g. AEI, EUROSTAT indicator. If appropriate, include the methodology/formula for establishment of the indicator</i>
Unit of measurement	<i>Unit used to record the value (e.g. ha, tonnes, €, %)</i>
Methodology/formula	<i>Identification of what is needed to transform data from the operation database into value for the indicator</i>
Data source	<i>Identification of existing data sources (e.g. EUROSTAT identifying relevant data set, FADN, European Environmental Agency, etc.)</i>
References/location of the data	<i>Links (other references) to data sources (e.g. in EUROSTAT specifying exact tables, FAO, World bank) AEI definitions, regulations establishing indicators, etc.</i>
Data collection level	<i>Identification of the geographical level at which the data is available and at which level the indicator should be established</i>
Frequency	<i>Frequency at which the indicators is collected/calculated</i>
Delay	<i>How old are the data when they become available</i>
Comments/caveats	<i>Comments concerning interpretation of the indicator for monitoring and evaluation purposes and its caveats, if appropriate</i>

1 Share of direct support in agricultural income

Indicator Name	Share of direct support in agricultural income
Related specific objective(s)	Enhance farm income
Definition	<p>The indicator gives the share of direct support (coupled and de-coupled payments) in both factor income and entrepreneurial income.</p> <p>The components of the indicator are:</p> <ul style="list-style-type: none"> - Direct support which refers to decoupled and coupled payments from the EU budget. Data on financial years is considered. - Agricultural factor income, which represents income generated by farming activities (i.e. off-farm activities are not included), and which is used to remunerate (1) borrowed/rented production factors (capital investment, wages for salaries and rented land), and (2) its own production factors (work and/or enterprise, own capital and owned land). - Agricultural entrepreneurial income, which represents the income generated by farming activities only and which is used to reward (2) its own production factors (work and/or enterprise, own capital and owned land). Agricultural entrepreneurial income is often referred to as "family farm income" and can be seen as the income concept which is the closest to an indicator of standard of living of the farmers. <p style="text-align: center;">Value of agricultural production</p> <ul style="list-style-type: none"> - variable inputs (fertilisers, pesticides, feed etc) - depreciation - total taxes (on products and production) + total subsidies (on products and production) = Factor income - wages - rents - interest paid <p style="text-align: center;">} borrowed/rented production factors (1)</p> <p>= Entrepreneurial income (family farm income) which includes own production factors (2)</p>
Unit of measurement	%
Methodology/formula	<p>The indicator is calculated by DG AGRI.</p> <p>Figures on coupled and decoupled payments per Member State are divided by figures per Member State on factor income and entrepreneurial income extracted from the Eurostat database.</p>
Data source	<p>Eurostat – Economic Accounts for Agriculture EU budget data on financial years</p>
References/location of the data	<p>Agricultural factor income and agricultural entrepreneurial income in current prices (million euro) are available on the Eurostat website http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database Economic Accounts for Agriculture, Table <i>Economic accounts for agriculture - values at real prices (aact_eaa04)</i></p>

	EU budget data on financial years (internal DG AGRI calculation)
Data collection level	EU and Member States
Frequency	yearly
Delay	Y+1
Comments/caveats	In the calculation, payment figures from the EU budget are shifted backwards by one year when divided to figures on income, as direct payments received in a certain year correspond to entitlements from the previous year.

2 Variability of farm income

Indicator Name	Variability of farm income
Related specific objective(s)	Enhance farm income
Definition	<p>The indicator is calculated as the percentage change between income in year N and the average income over the three previous years (N-1 to N-3). The indicator will be calculated per Member State, type of farm and economic size according to the Commission Regulation (EC) No 1242/2008 of 8 December 2008 establishing a Community typology for agricultural holdings. For the grouping according to type of farm and economic size, the TF8 and ES6 definitions as implemented in FADN will be used.</p> <p>Income is measured by Gross Value Added, which is defined as the value of output less the value of intermediate consumption. Following the FADN methodology, Gross value added is calculated as total output (SE131) minus total intermediate consumption (SE275). Output is valued at market prices and intermediate consumption at purchasers' prices.</p> <p>Two versions of the indicator will be used: Gross Value Added per farm (GVA) and Gross Value Added per Annual Work Units (GVA/AWU), where AWU is expressed in full-time person equivalents.</p> <p>For more detailed information on the FADN methodology, see Annexes 1 and 2.</p>
Unit of measurement	%
Data source	Farm Accountancy Data Network (FADN), DG AGRI.
References/location of the data	<p>In FADN standard results:</p> <ul style="list-style-type: none"> - Total output (per farm) is given by the standard variable SE131; - Total intermediate consumption is given by the standard variable SE275; - AWU is given by the standard variable SE010; - GVA is defined as SE131 - SE275; - GVA/AWU is defined as (SE131 - SE275)/SE010. <p>Data is accessible on the following link: http://ec.europa.eu/agriculture/rca/database/database_en.cfm</p>
Data collection level	<p>Collection at the level of FADN Regions by Member States (the list of these regions is given in Annex 1 of the Commission Regulation (EC) 1217/2009; the Regions' reference numbers are specified in the Commission Regulation (EC) 1291/2009)</p> <p>Calculation of standard results at level of FADN regions and Member States is</p>

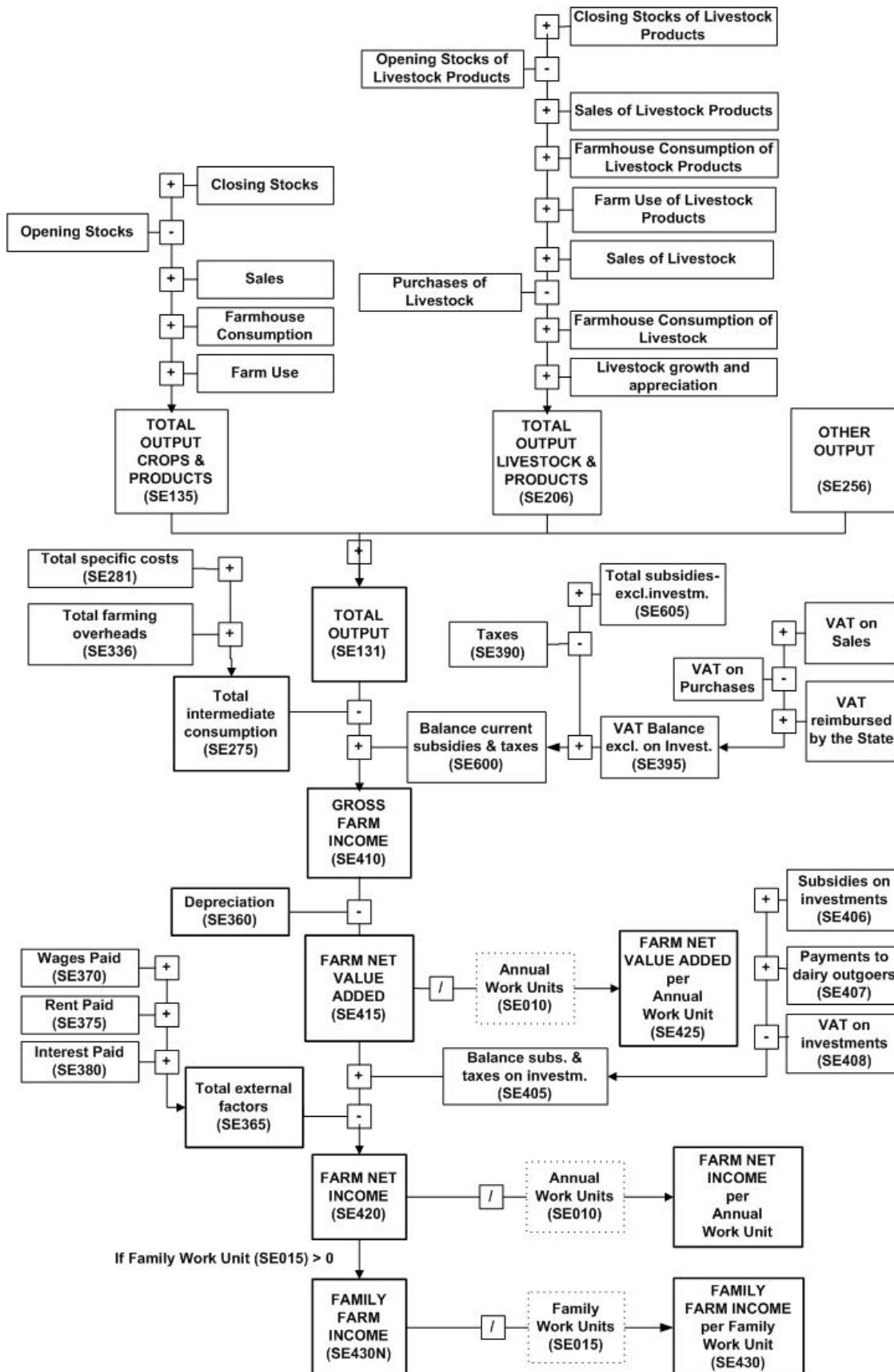
	carried out by DG AGRI.
Frequency	Data are collected annually
Delay	Data are available with a two-year lag
Comments/caveats	<p>The two versions of the indicator are complementary:</p> <ul style="list-style-type: none"> - GVA per AWU is better suited to compare farms' gross income between Member States as it takes into account structural differences in the average farm size; - GVA per farm is however a simpler indicator and more appropriate for comparison of income developments within Member States over time. <p>It is important to note that:</p> <ul style="list-style-type: none"> - the estimation of AWU on a farm may show some variation across Member States; - by definition, variations in GVA per farm does depend on changes in labour productivity and the total labour on the farm; - both GVA and GVA/AWU may take on negative values for a specific subset of farms – an element which must be take into account for the calculation of percentage changes (i.e. use absolute values); - similarly, when analysing changes of indicators with values close to zero, very small absolute changes of income may translate into high percentage changes.

ANNEX 1: Grouping according to type of farm (TF8) and economic size (ES6) used in FADN

TF8 Grouping	Principal type of farming
1. Fieldcrops	15. Specialist cereals, oilseeds and protein crops 16. General field cropping
2. Horticulture	21. Specialist horticulture indoor 22. Specialist horticulture outdoor 23. Other horticulture
3. Wine	35. Specialist vineyards
4. Other permanent crops	36. Specialist fruit and citrus fruit 37. Specialist olives 38. Various permanent crops combined
5. Milk	45. Specialist dairying
6. Other grazing livestock	46. Specialist cattle - rearing and fattening 47. Cattle - dairying, rearing and fattening combined 48. Sheep, goats and other grazing livestock
7. Granivores	51. Specialist pigs 52. Specialist poultry 53. Various granivores combined
8. Mixed	61. Mixed cropping 73. Mixed livestock, mainly grazing livestock 74. Mixed livestock, mainly granivores 83. Field crops - grazing livestock combined 84. Various crops and livestock combined

ES6 grouping	
1.	2 000 - <8 000 EUR
2.	8 000 - <25 000 EUR
3.	25 000 - <50 000 EUR
4.	50 000 - <100 000 EUR
5.	100 000 - <500 000 EUR
6.	>= 500 000 EUR

ANNEX 2: Definition of Output, Balance of subsidies and taxes, Income



Source: RICC 882, FADN.

3 Value added for primary producers in the food chain

Indicator Name	Value added for primary producers in the food chain
Related specific objective(s)	Improve agricultural competitiveness
Definition	<p>The indicator looks at the value added of the primary production in comparison to other stages of the food chain (mainly food manufacturing, food distribution and food service activities).</p> <p>Gross income from operating activities after adjusting for taxes and subsidies plus depreciation is used to calculate the value added for primary producers.</p>
Unit of measurement	Million euro at current prices
Data source	<p>Eurostat – Economic Accounts for Agriculture and Structural Business Statistics</p> <p>Data is available in million euro at current prices in the Eurostat publication From Farm to Fork Statistics (2011) http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-32-11-743/EN/KS-32-11-743-EN.PDF , page 15. Data is available in this publication for year 2008 for the primary producers and the other actors of the food chain concerned.</p>
References/location of the data	<p>Gross value added at current prices (million euro) for primary producers is available in Eurostat Economic Accounts for Agriculture http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database <i>Table Economic accounts for agriculture - values at current prices (aact_eaa01)</i></p> <p>Gross value added at factor cost in current prices (million euro) for the food industry, food trade (retail and wholesale) as well as food services can be found in the Eurostat Structural Business Statistics: http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/data/database <i>Table Annual detailed enterprise statistics for industry (NACE Rev.2 B-E) (sbs_na_ind_r2), Table Annual detailed enterprise statistics for trade (NACE Rev.2 G) (sbs_na_dt_r2) and Table Annual detailed enterprise statistics for services (NACE Rev.2 H-N and S95) (sbs_na_la_se_r2)</i></p>
Data collection level	EU 27 and Member State
Frequency	<p>Yearly for the Economic Accounts for Agriculture</p> <p>Every 18 months for the Structural Business Statistics</p>
Delay	<p>Data in the Economic Accounts is available for year Y+1</p> <p>Data in the Structural Business Statistics is available for year Y+3</p>
Comments/caveats	

4 EU agricultural exports

Indicator Name	EU agricultural exports
Related specific objective(s)	Improve agricultural competitiveness
Definition	<p>The indicator will consist of two sub-indicators:</p> <ol style="list-style-type: none"> <li data-bbox="427 909 1461 1093"> 1. Share of EU agricultural exports in world exports Share of EU agricultural exports in world exports = value of EU exports of agricultural goods/value of total world exports of agricultural goods. This may be broken down by different agricultural products, as defined by CN codes, and by different EU export/import geographical areas. <li data-bbox="427 1133 1461 1272"> 2. Share of final (consumer-oriented) products in EU agricultural exports Share of final (consumer-oriented) products in EU agricultural exports = value of EU exports of final (consumer-oriented) agricultural products/value of EU exports of all agricultural products. <p>The indicator is calculated by DG AGRI yearly on the basis of EUROSTAT Comext and UN Comtrade databases, using the definition of agricultural products developed internally (available in Agricultural Trade Statistics published by DG AGRI L2, http://ec.europa.eu/agriculture/statistics/trade/)</p>
Unit of measurement	%
Data source	EUROSTAT COMEXT database http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:COMEXT UN COMTRADE http://comtrade.un.org/
References/location of the data	COMEXT database – declarant EU27, partner – extra-EU27, trade flow: export; Combined Nomenclature codes as defined in AG AGRI Agricultural Trade Statistics publication (see link above); trade regime: 4. COMTRADE database – declarant: world, partner: world , trade flow: export;

	Combined Nomenclature codes as defined in AG AGRI Agricultural Trade Statistics publication (see link above); trade regime: 4.
Data collection level	Data for every MS is available Indicator at EU level
Frequency	Data is available monthly for COMEXT and annually for COMTRADE Indicator is calculated yearly
Delay	Indicator for year Y can be calculated in Q1 of Y+2 (due to availability of COMTRADE data) For Comext: year Y is available in the second month Y+1 For Comtrade: Year Y is available in Q1 of Y+2
Comments/caveats	Comments suggested additional separate indicators for commodity, intermediate and final goods, such information is produced by the Commission and publicly available. Also comments that distortive impact on world prices is not taken into account – this indicator is not based on world prices but customs valuation. Other indicators on price evolution and export refunds may be more relevant.

5 Public intervention

Indicator Name	Public intervention
Related specific objective(s)	Maintain market stability
Definition	<p>Ratio of volume of the products bought in the intervention storage and the total EU production of those respective products. The indicator will consist of sub-indicators providing this ratio for the individual products eligible for public intervention.</p> <p>Eligible products for intervention: cereals (common wheat, barley and maize), paddy rice, fresh or chilled meat of the beef and veal sector (falling within CN codes 0201 10 00 and 0201 20 20 to 0201 20 50), butter (produced directly and exclusively from pasteurised cream in an approved undertaking of the Community of a minimum butterfat content, by weight, of 82 % and a maximum water content, by weight, of 16 %), skimmed milk powder of top quality made from milk in an approved undertaking in the Community by the spray process, with a minimum protein-content of 34,0 % by weight of the fat free dry matter). (Art. 10 of Regulation 1234/2007; Art. 10 of COM(2011) 626)</p>
Unit of measurement	% (metric tonnes / metric tonnes)
Data source	<p>Member States notifications to DG AGRI (Unit D.2) Estimates of EU production (Outlook Groups, Units C.4, C.5, L.2) Eurostat data on final EU production for respective products</p> <p>According to the currently applicable regulation (Regulation 1272/2009), quantities in public storage are notified by the Member States to the Commission every week for cereals and rice (article 56) and every month for beef meat, butter and skimmed milk powder (article 57)</p>
References/location of the data	<p>Follow-up files, Unit AGRI-D.2, for volumes of public storage Outlook reports (+/- quarterly), for estimates of EU production Eurostat statistics on production data under Agricultural Products database (apro)</p>
Data collection level	<p>Per Member State and total for the EU, for volumes of public storage Total EU, for EU production</p>
Frequency	<p>Weekly for cereals and rice, monthly for beef meat, butter and skimmed milk powder for the data collection +/- quarterly for Outlook estimates of EU production</p> <p>The individual sub-indicators per product eligible for public intervention will be established annually.</p>
Delay	At most one month for volumes, quarterly for calculation of ratio
Comments/caveats	

6 Private storage

Indicator Name	Private storage
Related specific objective(s)	Maintain market stability
Definition	<p>Ratio of volume of the products placed into the publicly aided private storage and the total EU production of those respective products. The indicator will consist of sub-indicators providing this ratio for the individual products eligible for private storage.</p> <p>Eligible products: butter (unsalted and salted), white sugar, olive oil, beef meat, pigmeat, sheepmeat and goatmeat, SMP (Art. 28 and 31 of Regulation 1234/2007; Art.16 of COM(2011)626).</p>
Unit of measurement	% (hectolitres / hectolitres or metric tonnes / metric tonnes)
Data source	<p>Member States notifications to DG AGRI (Unit D.2) Estimates of EU production (Outlook Groups, AGRI Units C.2, C.4, C.5, L.2) Eurostat data on final EU production for respective products</p> <p>According to the currently applicable regulation (Regulation 826/2008), quantities placed into and leaving aided private storage are notified by the Member States to the Commission every month (article 35, paragraph 1, point b)</p>
References/location of the data	<p>Follow-up files, Unit AGRI-D.2, for volumes of aided private storage Outlook reports (+/- quarterly), for estimates of EU production Eurostat statistics on production data under Agricultural Products database (apro)</p>
Data collection level	<p>Per Member State and total for the EU, for volumes of aided private storage – Total EU, for EU production</p> <p>Eurostat data on final EU production for respective products</p>
Frequency	<p>Monthly +/- quarterly for Outlook estimates of EU production</p> <p>The individual sub-indicators per product eligible for private storage will be established annually.</p>
Delay	At most one month for volumes, quarterly for calculation of ratio
Comments/caveats	

7 Export refunds

Indicator Name	Export refunds
Related specific objective(s)	Maintain market stability
Definition	<p>Ratio of the volume of the products exported with export refunds and the total EU production per given period. The indicator will consist of sub-indicators providing the ratio for individual products eligible for export refunds, and to the extent that refunds are differentiated by destination.</p> <p>Eligible products: cereals, rice, sugar, beef and veal, milk and milk products, pigmeat, eggs, poultry meat, and a series of products processed from the above-mentioned.</p> <p>Under the applicable regulation (Regulation (EU) n° 612/2009) according to article 4, entitlement to the refund shall be conditional upon the presentation of an export licence with advance fixing of the refund (except for small quantities). Therefore, the volumes of products exported with refunds can be followed up via the export licences issued by the Member States. Sectoral regulations provide for the modalities of notification by the Member States to DG AGRI on the issued export licences.</p>
Unit of measurement	Heads for live animals, units for eggs, metric tonnes for other products
Data source	Member States notifications to DG AGRI (Unit D.2) Eurostat data on final production for respective products
References/location of the data	Follow-up files, Unit AGRI-D.2 Eurostat statistics on production data under Agricultural Products database (apro)
Data collection level	<p>Per Member State and total for the EU, usually cumulated since the beginning of the marketing year.</p> <p>Licences being valid throughout the EU, the Member State of issue is not reliable information as regards the origin of the exported product. Therefore, this indicator should be calculated at EU level.</p>
Frequency	<p>Notifications on refunds: daily, weekly, monthly, depending on the product. Synthesis: weekly or monthly.</p> <p>The cumulated sub-indicators per product eligible for export refunds will be established yearly.</p>
Delay	At most one month for export licences
Comments/caveats	

8 EU commodity prices compared to world prices

Indicator Name	EU commodity prices compared to world prices
Related specific objective(s)	Improve agricultural competitiveness [Maintain market stability]
Definition	<p>Comparison between the EU and world prices of the following agricultural commodities:</p> <ul style="list-style-type: none"> - Soft wheat - Maize - Barley - Sugar - Butter - SMP - WMP - Cheese - Beef meat - Pork meat - Poultry meat - Eggs
Unit of measurement	Index and rates of change (%)
Methodology/formula	Absolute price data extracted as such from the databases Calculation of indices and rates of changes (monthly and annual)
Data source	EU - Agriview (monthly prices) World - FAOSTAT, World Bank (Pink Sheet)
References/location of the data	<p>The comparison between EU and international prices (price dashboard) is available at: http://ec.europa.eu/agriculture/analysis/markets/foodprices/food06_2012_en.pdf</p> <p><u>EU prices from AGRIVIEW:</u> as recorded in http://ec.europa.eu/agriculture/markets/prices/monthly_en.pdf Product codes: BLTPAN (Breadmaking common wheat), MAI (Feed maize), ORGFOUR (Feed barley), LAI 249 (SMP), LAI 254 (Butter), LAI 259 (Cheddar), C R3 (Bœufs) or A R3 (Young bovines), POULET ALL (Poultry), REGULATED (Pork, 0203 2 E)</p> <p><u>World prices:</u></p> <ul style="list-style-type: none"> • Commodity Price Data (Pink Sheet), available at http://go.worldbank.org/2O4NGVQC00 <ul style="list-style-type: none"> - Wheat (US), no. 2, soft red winter, export price delivered at the US Gulf port for prompt or 30 days shipment - Maize (US), no. 2, yellow, f.o.b. US Gulf ports - Barley (Canada), feed, Western No. 1, Winnipeg Commodity Exchange, spot, wholesale farmers' price - Beef meat (Australia/New Zealand), chucks and cow forequarters, frozen boneless, 85% chemical lean, c.i.f. U.S. port (East Coast), ex-dock, beginning November 2002; previously cow forequarters (or alternatively Brazilian price)

	<ul style="list-style-type: none"> - Meat, chicken (US), broiler/fryer, whole birds, 2-1/2 to 3 pounds, USDA grade "A", ice-packed, Georgia Dock preliminary weighted average, wholesale • FAO compilation of average of mid-point of price ranges reported bi-weekly by Dairy Market News (USDA). Available at http://www.fao.org/es/esc/prices/PricesServlet.jsp?lang=en <ul style="list-style-type: none"> - Butter, Oceania, indicative export prices, f.o.b. ; - Cheddar Cheese, Oceania, indicative export prices, f.o.b.; - Skim Milk Powder, Oceania, indicative export prices, f.o.b.; - Whole Milk Powder, Oceania, indicative export prices, f.o.b. • Other international sources: <ul style="list-style-type: none"> - Pork (US) carcass lean hogs US Iowa Minnesota (167-187 lb) at www.feedstuffs.com - Beef (Brazil) at www.pecuaria.com.br or Argentina (Ministry of Agriculture, www.oncca.gov.ar) - Poultry (Brazil – IEA Sao Paolo, www.iea.sp.gov.br/out/ivarpre.php) or US (www.feedstuffs.com) - Eggs (US) from USDA http://www.usda.gov/wps/portal/usda/usdahome
Data collection level	Collection at EU level (MS level available in some cases) Calculation at EU level
Frequency	Monthly
Delay	1 month
Comments/caveats	EU and world prices should be comparable

9 Value of production under EU quality schemes

Indicator Name	Value of production under EU quality schemes
Related specific objective(s)	Meet consumer expectations
Definition	<p>Value of production under the quality schemes PDO and PGI (Council Regulation (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs) compared to total agricultural and food production.</p> <p>Value of production is measured in sales value (in EUR).</p>
Unit of measurement	%
Data source	<p>External study commissioned by the European Commission.</p> <p>The 2008 study covered the years 2005, 2006, 2007 and partly 2008.</p> <p>The ongoing 2012 study will update the existing data and will cover the period 2005-2010.</p>
References/location of the data	Data (the value of production) are located in the Member States with the producers under PDO and PGI schemes.
Data collection level	<p>Data are available at the producer's level. Their availability depends on the readiness of producer to provide them.</p> <p>There is no systematic data collection established EU wide but some Member States have national data collections.</p> <p>Indicator will be established at EU level, based on an estimation provided by a study.</p>
Frequency	Every four years
Delay	Approximately 2 years
Comments/caveats	<p>Given the lack of a clear definition of quality, the EU PDO/PGI schemes were taken as a proxy for quality production.</p> <p>The indicator could be biased in case that some producers (and notably the bigger ones) do not provide data</p> <p>So far this is the only method to obtain data; Member States are reluctant to ensure a systematic data collection of the value of production under PDO and PGI schemes.</p>

10 Importance of organic farming

Indicator Name	Importance of organic farming
Related specific objective(s)	Meet consumer expectations [Provide environmental public goods] [Climate change mitigation and adaptation] [Foster innovation]
Definition	<p>The indicators will consist of two sub-indicators:</p> <ol style="list-style-type: none"> 1. Share of organic area in total UAA: <ul style="list-style-type: none"> • percentage of total UAA under organic crop management (fully converted and under conversion) 2. Share of organic livestock in total livestock <ul style="list-style-type: none"> • Percentage of animals (in different categories) under organic management <p>Farming is considered to be organic if it complies with Council Regulation (EC) No 834/2007 of 28 June 2007 (OJ No L 189/2007) on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91.</p>
Unit of measurement	%
Data source	<p>Eurostat</p> <p><u>Main data source:</u></p> <ul style="list-style-type: none"> • Organic farming statistics (org): <ul style="list-style-type: none"> - Annual data collection - National level - Indicator for share of crop area in total UAA already calculated and available; livestock indicator requires calculations - Not fully complete data set <p><u>Potential alternative/additional data source:</u></p> <ul style="list-style-type: none"> • Structure of agricultural holdings (ef): <ul style="list-style-type: none"> - Data collection every 3-4 years - Breakdown possible at NUTS 2 or NUTS 3 (in census years) level - Requires calculations - Complete data set - Organic farming may be deleted from this survey in the future
References/location of the data	<p>1. Share of organic area in total UAA:</p> <p>Table: food_in_porg1 Variable: PCT_ORG_UAA (Share of total organic crop area out of total Utilised Agricultural Area (%))</p>

	<p>2. Share of organic livestock in total livestock:</p> <p>Tables:</p> <ul style="list-style-type: none"> • food_in_porg3 for the number of animals of different categories produced organically • apro_mt_lscatl for annual data of cattle population • apro_mt_lsgoat for annual data of goat population • apro_mt_lsequi for annual data of equidae population • apro_mt_lssheep for annual data of sheep population • apro_mt_lspig for annual data of pig population <p>For this subindicator, the share of organic in total production is not calculated by Eurostat but can be calculated by comparing the number of animals reared organically with the total animal population</p>
Data collection level	<p>1. Share of organic area in total UAA:</p> <ul style="list-style-type: none"> - Readily available at national level in Eurostat database - Likely to be available at lower levels in the Member States - Alternatively, the indicator can be calculated at lower geographical levels from FSS data, but only at certain time intervals (3-4 years) <p>2. Share of organic livestock in total livestock:</p> <ul style="list-style-type: none"> - Data on the number of livestock reared under organic production methods are available at national level in the Eurostat database and are likely to be available at lower levels in the Member States - Data on total livestock population by animal type can be broken down at NUTS 2 level (NUTS 1 for Germany and the UK) - Alternatively, the indicator can be calculated at lower geographical levels from FSS data, but only at certain time intervals (3-4 years)
Frequency	<p>Annually for non-FSS data Every 3-4 years for FSS data</p>
Delay	<p>2 years (in August 2012 we have data for 2010)</p>
Comments/caveats	<p>The value of this indicator should be seen in comparison to other years or other countries. For example, a country could have a share of organic farming of 5%, which sounds small but could be twice as much as in the year before, or three times as much as in the neighbouring country.</p> <p>It is possible that no more organic data will be collected through the FSS in the future (after 2013). In that case, only the data collected under Regulation (EC) No. 834/2007 will remain available (national level).</p> <p>While data on organic crop area are not always available for all products, the main product categories are well reported. It is thus possible to illustrate the area under organic cultivation at national level, and over the whole EU-27, including the share of organic area in the total UAA in each country and at EU level.</p> <p>Data on organic livestock are reasonably well reported for the period from 2005 onwards, except for Germany and Malta, where no data are available.</p> <p>There is no complete data set on value of production, sales or household expenditure on organic products.</p>

11 Crop diversity

Indicator Name	Crop diversity																																																																		
Related specific objective(s)	Provide environmental public goods [climate change mitigation and adaptation]																																																																		
Definition	<p>This indicator comprises two sub-indicators:</p> <p>a) Crop diversity on farm: average number of crops grown on a holding (by NUTS 2) <u>or</u> share of holdings with more than x crops (also by NUTS 2);</p> <p>b) Crop diversity at regional level: share of different crop types in a NUTS 2. This indicator would show changes in the overall crop mix in a NUTS 2.</p> <p>In addition, regional crop diversity could be measured by the Herfindahl index (also known as Herfindahl–Hirschman Index, or HHI), which is a measure of the size of components in relation to the totality and an indicator of the amount of competition among them. It is the most frequently used index for measuring concentration.</p> <p>Formula:</p> $H := \sum_{i=1}^N a_i^2 \quad \text{where} \quad a_i := \frac{x_i}{\sum_{j=1}^N x_j}$ <p>To measure crop diversity in a specific region, the share of crops in percent relating to the arable land has to be calculated. A high HHI signifies that the diversity is low (a value of 1 signifies a monopoly), while a low HHI signifies that the diversity is high.</p>																																																																		
Unit of measurement	Number; %																																																																		
Data source	<p><u>Sub-indicator a:</u> Eurostat - Farm Structure Survey</p> <p>Example:</p> <table border="1" data-bbox="438 1512 1300 1668"> <thead> <tr> <th colspan="2"></th> <th colspan="4">No of holdings</th> <th></th> </tr> <tr> <th colspan="2"></th> <th>1 crop</th> <th>2 crops</th> <th>3 crops</th> <th>> 3 crops</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Total</td> <td><3 ha</td> <td>52%</td> <td>26%</td> <td>15%</td> <td>7%</td> <td>100%</td> </tr> <tr> <td>>=3</td> <td>10%</td> <td>34%</td> <td>32%</td> <td>25%</td> <td>100%</td> </tr> <tr> <td>Total</td> <td>47%</td> <td>27%</td> <td>17%</td> <td>9%</td> <td>100%</td> </tr> </tbody> </table> <table border="1" data-bbox="438 1736 1300 1892"> <thead> <tr> <th colspan="2"></th> <th colspan="4">UAA</th> <th></th> </tr> <tr> <th colspan="2"></th> <th>1 crop</th> <th>2 crops</th> <th>3 crops</th> <th>> 3 crops</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Total</td> <td><3 ha</td> <td>59%</td> <td>24%</td> <td>11%</td> <td>5%</td> <td>100%</td> </tr> <tr> <td>>=3</td> <td>9%</td> <td>35%</td> <td>32%</td> <td>24%</td> <td>100%</td> </tr> <tr> <td>Total</td> <td>44%</td> <td>28%</td> <td>18%</td> <td>11%</td> <td>100%</td> </tr> </tbody> </table> <p>The use of clearance of accounts data is being explored; this would only cover crop diversity in farms receiving direct payments and subject to greening; see also output indicator 2 - greening.</p> <p><u>Sub-indicator b:</u> Eurostat – regional agriculture statistics (annual) or FSS (every</p>			No of holdings							1 crop	2 crops	3 crops	> 3 crops	Total	Total	<3 ha	52%	26%	15%	7%	100%	>=3	10%	34%	32%	25%	100%	Total	47%	27%	17%	9%	100%			UAA							1 crop	2 crops	3 crops	> 3 crops	Total	Total	<3 ha	59%	24%	11%	5%	100%	>=3	9%	35%	32%	24%	100%	Total	44%	28%	18%	11%	100%
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	3-4 years)
References/location of the data	<p><u>Sub-indicator a:</u> special request to Eurostat for extraction from Eurofarm database</p> <p><u>Sub-indicator b:</u> annual land use data for NUTS 2 are available from the regional agricultural statistics (table agr_r_landuse).</p> <p>A more detailed breakdown of land use by different types of crops can be obtained from the FSS (e.g., types of cereals, root crops, pulses) but at longer intervals. Data from FSS can be linked to other structural information.</p>
Data collection level	NUTS 2
Frequency	<p>FSS – every 3-4 years</p> <p>Regional land use statistics – annual</p>
Delay	<p>FSS – 2-3 years</p> <p>Regional land use statistics – 2 years</p>
Comments/caveats	The overall crop mix in a NUTS 2 is to a large extent determined by economic (market), climate and institutional conditions. The CAP proposal only requires farmers to grow at least three crops, which can be fulfilled by all farmers growing the same three crops. Thus, the policy does not necessarily have an impact on regional crop diversity.

12 Share of grassland in agricultural land

Indicator Name	Share of grassland in agricultural land
Related specific objective(s)	Provide environmental public goods
Definition	Share of (permanent) grassland in total UAA
Unit of measurement	%
Data source	Eurostat - Farm Structure Survey The use of clearance of accounts data is also being explored; this would however limit data to agricultural land receiving direct payments and subject to greening (see also output indicator 2 – greening).
References/location of the data	Table ef_lu_ovcropaa
Data collection level	NUTS 2 for sample survey years NUTS 3 for census years
Frequency	Every 3-4 years (FSS rhythm)
Delay	2-3 years
Comments/caveats	In the current CMEF, there is a related indicator which is well defined and regularly updated: Context 3, agricultural land use (see http://ec.europa.eu/agriculture/statistics/indicators/rd-2011/c3_en.pdf)

13 Share of EFA in agricultural land

Indicator Name	Share of EFA in agricultural land
Related specific objective(s)	Provide environmental public goods
Definition	Share of different types of EFA in total UAA
Unit of measurement	%
Data source	Eurostat - Farm Structure Survey The use of clearance of accounts data is also being explored; this would however limit data to agricultural land receiving direct payments and subject to greening (see also output indicator 2 – greening).
References/location of the data	Table ef_lu_ovcropaa
Data collection level	NUTS 2 for sample survey years NUTS 3 for census years
Frequency	Every 3-4 years (FSS rhythm)
Delay	2-3 years
Comments/caveats	In the current CMEF, there is a related indicator which is well defined and regularly updated: Context 3, agricultural land use (see http://ec.europa.eu/agriculture/statistics/indicators/rd-2011/c3_en.pdf)

14 Share of eligible land under greening practices

Indicator Name	Share of eligible land under greening practices (Pillar I)
Related specific objective(s)	Provide environmental public goods
Definition	<p>This indicator aims at showing the proportion of the land eligible for CAP direct payments which is subject to environmentally-friendly practices under Pillar I.</p> <p>This will count the area covered by those farms where at least one of the greening practices is applied, and the area covered by organic farms receiving direct payments.</p> <p>It is the ratio between:</p> <ul style="list-style-type: none"> - the total number of hectares declared by farmers who have to apply at least one greening obligation (Crop diversification / EFA / permanent grassland) + the total number of hectares declared (for direct payments) by farmers who comply with the requirements of Regulation (EC) No 834/2007 (organic farming) and - the total eligible area (the total 'determined' area which is considered eligible for direct payments after control, of all direct payment beneficiaries)
Unit of measurement	%
Data source	<p>- Output indicators for greening and greening exemptions, from notification by MS (see output indicator fiches).</p> <p>-PEA:</p>
References/location of the data	Data received through ISAMM is made available in AGRInet and CircaBC (publication in AgriView might be examined)
Data collection level	National
Frequency	<p>- output indicators greening: Yearly (15/12/Year N)</p> <p>- total eligible area (total of "determined" area) : yearly (15/07 N+1)</p> <p>The ratio can only be established on 15/07 N+1</p>
Delay	About a year
Comments/caveats	<p>This indicator does not count the area covered by rural development area-based measures. The share of agricultural land covered by the RD environmental contracts are accounted separately.</p> <p>The idea is to combine these 2 indicators in the future to come to a total share of agricultural land covered by environmental practices.</p>

15 Net greenhouse gas emissions from agricultural soils

Indicator Name	Net greenhouse gas (GHG) emissions from agricultural soils
Related specific objective(s)	Provide environmental public goods and pursue climate change mitigation (reduction of emissions) and adaptation (prevention of and coping with impacts of climatic changes).
Definition	Aggregated annual emissions and removals of carbon dioxide (CO₂), and emissions of methane (CH₄) and nitrous oxide (N₂O) from agricultural soils (grassland and cropland), reported by MS under the ‘Land Use, Land Use Change and Forestry’ (LULUCF) inventory to UNFCCC.
Unit of measurement	Absolute net GHG emissions are reported in tonnes CO ₂ equivalents. Relative net emissions are reported as a percentage of the net emissions in the reference year 1990. All GHGs are accounted on the basis of their global warming potentials (GWP) over a 100 year time period. GWP values are taken from IPCC (2007): CO ₂ = 1; CH ₄ = 25; N ₂ O = 298.
Data source	Annual official data submitted by MS to the United Nations Framework Convention on Climate Change (UNFCCC), and the EU Monitoring Mechanism (managed and compiled by the EEA/EIONET). MS calculate sectoral emissions using standard methodologies (2006 IPCC guidelines) and according to a common reporting framework (CRF) agreed worldwide.
References/location of the data	CO ₂ emissions from agricultural soils are recorded in table EU27_SRT5.xls of Annex-2.9-crf-tables-lulucf_EU27.zip (compiled each year by the EEA), which includes Standard reporting table (SRT) for sector 5 (LULUCF). Categories 5.A.B (cropland) and 5.A.C (grassland) are included in the indicator. These account for emissions of cropland/grassland remaining the same type of land use, and emissions from land converted to cropland/grassland. The web-based tool EEA GHG viewer provides access and analysis of the data contained in the Annual EU's GHG inventories since 1990. The EEA GHG data viewer can show emission trends for the main sectors/categories and allows for comparisons of emissions between different countries and activities. This data set can be consulted at : http://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer
Data collection level	Member State
Frequency	Data collected annually
Delay	Year Y in June Y+2 (for instance GHG emissions data of 2010 are provided in summer 2012)
Comments/caveats	IPCC guidance allows MS to report GHG emissions and removals from agricultural soils (LULUCF) according to different level of tiers. Tier 1 is based on the use of activity data (e.g. agricultural production statistics) and global

emission factors. Tier 2 follows the same approach but applies nationally defined emission factors. Tier 3 involves the use of models and higher order inventory data tailored to the national circumstances. Methodologies for GHG emission estimates are thus not harmonised within the EU.

In particular when using low tier level, GHG emission estimates do not necessarily mirror the effects of all mitigation measures that are supported by the CAP. This would require a higher level of stratification of activity data, and corresponding information on emission factors, which often is not available. As a result, GHG emission estimates have a high level of uncertainty.

Comments in relation to MS' observations:

This indicator only covers agricultural soils, and not agricultural non-CO2 GHG emissions as first pillar instruments have an impact only on soil related emissions (greening measures, and GAEC).

Emission inventories will be identical to UNFCCC reporting, so no new reporting burden on MS. This reporting is already done on an annual basis.

Any indicator has to be interpreted and cannot be seen in isolation. This means that the GHG indicator has to be interpreted in relation to agricultural output. We agree to the UK concern that the reduction of agricultural production would not be desirable although it would yield a reduction of GHG emissions within the EU. Leakage (i.e. increases of emission outside the EU) is not included.

MS are encouraged to improve GHG inventories towards higher tier levels, which would allow demonstrating the effects of technological improvements.

16 Structural diversity

Indicator Name	Structural diversity
Related specific objective(s)	Maintain diverse agriculture
Definition	<p>Structural diversity can be described in various ways:</p> <ol style="list-style-type: none"> 1. in <u>absolute terms</u>, by reporting for each Member State: <ul style="list-style-type: none"> – total number of farms, – total ha of UAA, – total LSU of holdings with livestock, – total AWU – total Standard Output i.e. the average monetary value of the agricultural output at farm-gate prices 2. in <u>relative terms</u>, by calculating : <ul style="list-style-type: none"> – distribution of holdings according to their size in ha of UAA – distribution of holdings according to their economic size (measured by their Standard Output (SO)) – distribution of holdings according to their specialisation / farm type
Unit of measurement	<ol style="list-style-type: none"> 1. numbers (of farms, of ha UAA, of AWU) 2. shares <ul style="list-style-type: none"> – % of holdings in different UAA classes – % of holdings in different SO classes – % of holdings in different farm type classes <p>N.B.: shares will have to be calculated based on absolute values provided by Eurostat</p> <p>The use of a composite index is currently also being explored.</p>
Data source	Eurostat – Farm Structure Survey
References/location of the data	<ol style="list-style-type: none"> 1. Table ef_kvaareg 2. <ul style="list-style-type: none"> – Table ef_kvaareg – Table ef_kvecsleg – Table ef_kvftreg <p>In the current CMEF, the context-related baseline indicator 4 (farm structure) describes farm structures by looking at the total number of farms, ha of UAA and AWU in each EU Member State. It also presents the distribution of farms according to their physical (in UAA) and economic (in ESU) size (see http://ec.europa.eu/agriculture/statistics/indicators/rd-2011/c4_en.pdf)</p>
Data collection level	NUTS 2 for sample survey years (directly available from the Eurostat website) NUTS 3 for census years (upon special request to Eurostat)
Frequency	Every 3-4 years (FSS rhythm)
Delay	2-3 years

Comments/caveats

The standard output is used in the FSS 2010 for the first time, replacing the standard gross margin. Data of the 2010 census should be available by the end of 2012. However, SO values are currently only calculated backwards for 2007, making the available time series very short.