CONSELLO GALEGO DE ESTATÍSTICA

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31-905 Sistema de indicadores complementarios para o seguimento do Plan de Desenvolvemento Rural (PDR) en Galicia

PROXECTO TÉCNICO

Obxectivo

O obxectivo deste proxecto técnico é establecer a metodoloxía empregada para o cálculo de indicadores complementarios de seguimento do PDR en Galicia. Estes indicadores complementarían aos indicadores comúns de contexto calculados pola Comisión Europea (CE) (anexo) e teñen a súa razón de ser porque son indicadores estruturais que reflicten as peculiaridades da Comunidade Autónoma de Galicia e serven para analizar o efecto do PDR dentro da propia Galicia.

Normativa e Xustificación

Os indicadores comúns de contexto, tal e como sinala o seu nome, son comúns en todo o territorio da UE. Estes indicadores serven para analizar a situación de partida e a evolución das diferentes rexións nas que se establece un plan de desenvolvemento rural.

Os indicadores comúns de contexto do PDR 2014-2020 foron definidos pola Comisión Europea (CE) e calcúlanse nas diferentes rexións de xeito coordinado por Eurostat que facilita a maior parte das fontes xunto coa Dirección de Agricultura da CE. O anexo contén a definición destes indicadores, así como as fontes e forma de cálculo, establecidas pola CE.

A partir dos indicadores comúns de contexto definidos pola CE, o IGE e a Consellería de Medio Rural e do Mar elaboran os indicadores complementarios do PDR. Así por exemplo, para determinar a maior ou menor concentración de poboación dun territorio disponse de dúas posibles variables que se poderían empregar: o grao de urbanización -que se define no nivel de concello- e o tipo de rexión –que se define no nivel de provincia. No ámbito de Galicia a primeira das variables clasifica a Galicia en tres zonas, **ZDP** (densamente poboada), **ZIP** (intermedia) e **ZPP** (pouco poboada); mentres que a segunda das variables clasifica o territorio en só dúas rexións: intermedia (provincias da Coruña e Pontevedra) e predominantemente rural (provincias de Lugo e Ourense).

No caso de Galicia resulta máis oportuno empregar a primeira das variables, pois ao basearse no concello, reflicte mellor as peculiaridades do asentamento poboacional no territorio galego. Ademais existen espazos predominantemente urbanos, nomeadamente nas provincias occidentais, que non se manifestan pola elección das NUTS 3 como unidade xeográfica para construír as rexións.

Os indicadores agrúpanse pola súa temática en tres bloques: os indicadores socioeconómicos, os sectoriais e os medioambientais.

1. Indicadores socioeconómicos: fontes e definición

POBOACIÓN E SUPERFICIE

1.1. Poboación segundo o grao de urbanización

Defínese como o total de poboación a 1 de xaneiro de cada ano *t* segundo o tipo de zona.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe de habitantes en cada tipo de zona *g* sobre a poboación total o día 1 de xaneiro do ano *t*.

A fórmula de cálculo empregada é:

$$\frac{P_g^t}{P^t} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada é a estatística *Cifras poboacionais de referencia* elaborada polo IGE.

1.2. Poboación segundo o grupo de idade e o grao de urbanización

Defínese como o total de poboación a 1 de xaneiro de cada ano *t* segundo o grupo de idade *i* e o tipo de zona *g*.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada é a porcentaxe de habitantes en cada grupo de idade *i* e tipo de zona *g* sobre a poboación total dese tipo de zona *g* o día 1 de xaneiro do ano *t*.

A fórmula de cálculo empregada é:

$$\frac{P_{i,g}^t}{P_j^t} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada é a estatística *Cifras poboacionais de referencia* elaborada polo IGE.

1.3 Superficie segundo o grao de urbanización

Defínese, para cada ano *t*, como a superficie do territorio segundo o tipo de zona *g*.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres

tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

As medidas empregadas para este indicador son os km^2 de superficie e a porcentaxe de km^2 de superficie en cada tipo de zona *g* sobre a superficie total.

A fórmula de cálculo empregada no caso da porcentaxe é:

$$\frac{S_g^t}{S^t} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada é o Instituto Geográfico Nacional.

1.4. Densidade de poboación segundo o grao de urbanización

Defínese, para cada ano *t* e cada tipo de zona *g*, como o cociente entre a poboación a 1 de xaneiro de cada ano *t* dese tipo de zona *g* e a superficie do territorio do mesmo grao de urbanización.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*. Este indicador calcúlase tanto por zonas como para o total.

A medida empregada para este indicador son os habitantes por km^2.

A fórmula empregada para o cálculo deste indicador para cada tipo de zona *g* é:

$$\frac{P_g^t}{S_g^t} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

As fontes de información empregadas son a estatística *Cifras poboacionais de referencia* elaborada polo IGE e a información da superficie facilitada directamente polo IGN.

TRABALLO

Os indicadores deste apartado empregan como fonte a Enquisa de poboación activa (EPA) elaborada en colaboración polo IGE e o INE. Esta enquisa está harmonizada a nivel europeo e corresponde coa Labour Force Survey de Eurostat.

Os indicadores 1.5, 1.6, e 1.8 obtéñense a partir do ficheiro de microdatos da EPA que o INE proporciona ao IGE. Para o seu cálculo empréganse as seguintes variables:

Trimestre de referencia (CICLO), Idade (EDAD1), Sexo (SEXO1), Tipo de municipio (TIPMUN), Situación profesional (SITU), Actividade económica (act), Provincia de residencia (prov) Relación coa actividade económica (aoi) e Factor de elevación (FACTOREL).

1.5. Taxa de ocupación de 16 a 64 anos segundo o grao de urbanización e o sexo

Defínese, para cada ano *t*, xénero *s* e tipo de zona *g*, como o cociente entre o número de ocupados de 16 a 64 anos, xénero *s* e tipo de zona *g* e a poboación de 16 a 64 anos dese xénero e tipo de zona.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe.

A fórmula de cálculo empregada para cada xénero *s* e tipo de zona *g* é:

$$\frac{Ocupados^{t}_{g,s}}{P^{t}_{g,s}} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada para o cálculo de este indicador é a *Enquisa de poboación activa*, elaborada en colaboración polo INE e o IGE.

1.6. Taxa de autoemprego segundo o grao de urbanización e o sexo

Defínese, para cada xénero *s* e tipo de zona *g* como o cociente entre o número de ocupados por conta propia do grupo de idade de 16-64, xénero *s* e tipo de zona *g* e os ocupados do mesmo grupo de idade, xénero e tipo de zona.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe.

A fórmula de cálculo empregada para cada xénero *s* e tipo de zona *g* é:

$$\frac{Ocupados\_conta\_propia^{t}_{g,[16-65),s}}{Ocupados^{t}_{g,[16-65),s}} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada para o cálculo de este indicador é a *Enquisa de poboación activa*, elaborada en colaboración polo INE e o IGE.

1.7 Poboación ocupada segundo grao de urbanización e gran sector da actividade económica

Este indicador defínese, para cada ano *t* e para cada zona *g* como a poboación ocupada en cada un dos seguintes grandes sectores de actividade *l*: primario (sección A da CNAE 2009), secundario (seccións B-F da CNAE 2009) e terciario (seccións G-U da CNAE 2009).

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe de ocupados que en cada zona *g* representa cada sector sobre o total da zona.

A fórmula de cálculo empregada é:

$$\frac{Ocupados_{l,g}^{t}}{Ocupados_{g}^{t}} \cdot 100$$

A fonte de información empregada para o cálculo deste indicador é a *Enquisa de poboación activa*, elaborada en colaboración polo INE e o IGE.

1.8 Poboación ocupada segundo o grao de urbanización

Este indicador defínese, para cada ano *t,* como a poboación ocupada segundo o tipo de zona *g*.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe de ocupados que cada zona *g* representa sobre o total.

A fórmula de cálculo empregada é:

$$\frac{Ocupados_{g}^{t}}{Ocupados^{t}} \cdot 100 \;\; g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada para o cálculo de este indicador é a *Enquisa de poboación activa*, elaborada en colaboración polo INE e o IGE.

BENESTAR

1.9. Taxa de pobreza ou exclusión social segundo o grao de urbanización

Defínese, para cada tipo de zona *g*, como a porcentaxe de persoas en risco de pobreza ou exclusión social sobre o total de persoas que conforman os fogares privados residentes en vivendas familiares principais.

Considérase poboación en risco de pobreza ou exclusión social aquela que está nalgunha das seguintes situacións:

- En risco de pobreza: o ingreso por unidade de consumo está por debaixo do 60% da mediana dos ingresos por unidade de consumo
- En carencia material severa
- Persoas de 0 a 59 anos que viven en fogares sen ingresos de traballo ou con baixa intensidade de ingresos de traballo, é dicir, onde o número de días que os adultos de 18 a 59 anos dese fogar tiveron ingresos por traballo supón ata o 20% do número total de días que poderían telos durante o ano anterior

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*. Este indicador calcúlase tanto por zonas como para o total de Galicia.

A fonte de información empregada para o cálculo de este indicador é a *Enquisa estrutural a fogares* (antiga *Enquisa de condicións de vida das familias*), elaborada polo IGE.

CONTAS ECONÓMICAS

As fontes de información empregadas para o cálculo dos indicadores deste apartado son as *Contas económicas trimestrais* e o *Produto Interior Bruto municipal* elaboradas polo IGE. O emprego *do Produto Interior Bruto municipal* vén motivado pola necesidade da desagregación por grao de urbanización nalgúns dos indicadores. Cómpre ter en conta que nas contas trimestrais só serán definitivos os datos anuais nos que existan estimacións definitivas das contas anuais. O feito que motiva o emprego das contas trimestrais no lugar das anuais é a actualidade da información.

1.10 Valor engadido bruto (VEB) por grandes sectores de actividade

Este indicador proporciona, para cada ano *t,* o VEB en cada un dos seguintes sectores de actividade *l*: primario (sección A da CNAE 2009), secundario (seccións B-F da CNAE 2009) e terciario (seccións G-U da CNAE 2009).

As medida empregada para este indicador é a porcentaxe que o VEB de cada sector representa sobre o VEB do total da economía.

A fórmula de cálculo empregada no caso da porcentaxe é:

$$\frac{VEB_l^t}{VEB^t} \cdot 100$$

A fonte de información empregada para o cálculo de este indicador é as *Contas económicas trimestrais* elaboradas polo IGE.

1.11. Valor engadido bruto (VEB) segundo o grao de urbanización

Este indicador proporciona, para cada ano *t*, o VEB de cada tipo de zona *g*.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe que o VEB de cada tipo de zona representa sobre o VEB do total da economía.

A fonte de información empregada para o seu cálculo é o *Produto interior bruto municipal* elaborado polo IGE.

1.12 Distribución do valor engadido bruto (VEB) por sectores de actividade segundo o grao de urbanización

Este indicador proporciona, para cada ano *t* e para cada zona de urbanización *g*, o VEB de cada sector de actividade *l*: primario (sección A da CNAE 2009), secundario (seccións B-F da CNAE 2009) e terciario (seccións G-U da CNAE 2009).

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.

A medida empregada para este indicador é a porcentaxe que o VEB de cada sector, en cada zona *g*, representa sobre o VEB total desa zona.

A fórmula de cálculo empregada para cada grao de urbanización *g* e sector de actividade *l*:

$$\frac{VEB_{g,l}^{t}}{VEB_{g}^{t}} \cdot 100 \; g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada para o seu cálculo é o *Produto interior bruto municipal* elaborado polo IGE.

1.13 Produtividade no traballo segundo gran sector da actividade económica

Este indicador defínese, para cada ano *t,* como o cociente entre VEB e os postos de traballo equivalentes (PTE) en cada un dos seguintes sectores de actividade *l*: primario (sección A da CNAE 2009), secundario (seccións B-F da CNAE 2009) e terciario (seccións G-U da CNAE 2009)

A medida empregada para este indicador son os euros por PTE.

A fórmula de cálculo empregada é:

$$\frac{VEB_{l}^{t}}{PTE_{l}^{t}}$$

A fonte de información empregada para o cálculo de este indicador son as *Contas económicas trimestrais* elaboradas polo IGE.

2. Indicadores sectoriais: fontes e definición

PRODUTIVIDADE DO TRABALLO NA AGRICULTURA, SILVICULTURA E AGROINDUSTRIA

As definicións dos indicadores deste apartado son similares ás definicións que empregan os indicadores dados pola CE. As principais diferenzas son que nestes indicadores se empregan fontes do IGE e para as persoas empregadas na agricultura, silvicultura e industria agroalimentaria (o denominador) utilízanse os PTE. Tal e como establece e recomenda a Comisión neste caso, para mitigar as flutuacións tamén se consideran as medias de tres anos. O dato do VEB e dos PTE, extráese das *Contas Económicas Anuais* dispoñible na páxina web do IGE.

2.1. Produtividade do traballo na agricultura.

Este indicador defínese como o VEB entre o número de PTE na agricultura.

Considérase como agricultura a división 01 da CNAE-2009 é dicir *Agricultura, gandaría, caza e servizos relacionados con elas*; o VEB obtense a prezos básicos e en termos correntes. Tanto para o cálculo do numerador como do denominador emprégase a media de tres anos consecutivos e o valor asígnase ao ano central.

A medida empregada para este indicador é *euros por PTE*

A fonte de información empregada para o cálculo de este indicador é as *Contas económicas anuais* elaboradas polo IGE.

2.2 Produtividade do traballo na silvicultura

Este indicador defínese como o cociente entre o VEB a prezos correntes na silvicultura e o número de postos de traballo equivalentes a tempo completo (PTE) na silvicultura. Tanto para o cálculo do numerador como do denominador emprégase a media de tres anos consecutivos e o valor asígnase ao ano central. A silvicultura correspóndese coa división 02 da CNAE-2009 é dicir *Silvicultura e explotación forestal*.

A medida empregada para este indicador e *euros por PTE*

A fonte de información empregada para o cálculo de este indicador é as *Contas económicas anuais* elaboradas polo IGE.

2.3 Produtividade do traballo na Industria agroalimentaria

Este indicador defínese como o cociente entre o VEB a prezos correntes na industria agroalimentaria e o número de postos de traballo equivalentes a tempo completo (PTE) na industria agroalimentaria. Tanto para o cálculo do numerador como do denominador emprégase a media de tres anos consecutivos e o valor asígnase ao ano central. A Industria agroalimentaria corresponde ás divisións 10, 11 e 12 da CNAE-2009.

A medida empregada para este indicador é *euros por PTE*

A fonte de información empregada para o cálculo de este indicador é as *Contas económicas anuais* elaboradas polo IGE.

PRODUTIVIDADE EMPRESARIAL DAS ACTIVIDADES AGRARIAS

2.4 Excedente bruto de explotación (EBE)/renda mixta agraria por posto de traballo equivalente non asalariado.

As contas económicas anuais do IGE facilitan as contas de explotación para as diferentes ramas da economía, das que se obtén o agregado do EBE/Renda mixta. Por definición, a renda empresarial agraria é Excedente neto de Explotación (ENE)/Renda mixta - pagamentos

de rendas - pagamentos de xuros + xuros recibidos. Pódese, polo tanto, aproximar[1] a renda empresarial agraria a partir do cociente entre o EBE/Renda mixta e os postos de traballo equivalentes non asalariados da división da CNAE A01. Esta aproximación sobreestima o valor do traballo por conta propia dos que xestionan a explotación xa que ao beneficio obtido pola actividade agraria non se lle está descontando a parte destinada ao pagamento de rendas e de xuros; ademais de estar valorado en termos correntes.

Este indicador non se corresponde co definido pola CE, 26.1, pois no indicador da CE empregan as persoas non asalariadas e neste indicador empréganse os PTE non asalariados, para unha mellor estimación do denominador, que á súa vez é máis coherente co indicador da CE 26.2 Renda empresarial agraria comparada co valor da hora de traballo asalariada no global da economía.

CAPACIDADE HOTELEIRA

2.5 Capacidade hoteleira segundo o grao de urbanización

Neste indicador proporciónase o número de prazas estruturais no ano *t*, nos establecementos hoteleiros, de turismo rural, apartamentos turísticos e campamentos, segundo a tipoloxía da zona *g*. As prazas estruturais correspóndense coas prazas dos establecementos dispoñibles no directorio de establecementos turísticos do INE do mes de decembro de cada ano, estean abertos ou non nese mes.

A tipoloxía da zona empregada é a derivada da clasificación dos concellos segundo o grao de urbanización publicada por Eurostat no ano 2012, que permite agrupar os concellos en tres tipos de zonas segundo o seu carácter rural ou urbano: *zonas densamente poboadas (ZDP)*, *zonas intermedias (ZIP)* e *zonas pouco poboadas (ZPP)*.
As medidas empregadas para este indicador son o número de prazas en cada unha das zonas e a porcentaxe de prazas en cada zona sobre o total.

A fórmula de cálculo empregada no caso da porcentaxe é:

$$\frac{\Pr azas_g^t}{\Pr azas^t} \cdot 100 \quad g \in \{ZDP, ZIP, ZPP\}$$

A fonte de información empregada é o directorio de establecementos turísticos que o INE facilita todos os meses ao IGE baixo o acordo marco.

[1] Hai que ter en conta, primeiro, que a rama da agricultura das Contas económicas anuais do IGE non coincide coa rama agraria das contas económicas da agricultura e, segundo, que a valoración do excedente de explotación nas contas anuais faise en bruto (non se desconta o consumo de capital fixo).

3. Indicadores ambientais: fontes e procedemento de cálculo

3.1. Superficie forestal

A información da superficie forestal obtense da operación estatística “Superficies agrícolas” responsabilidade da Consellería de Medio Rural e do Mar. Neste operación estatística definen a superficie forestal como as zonas cubertas por especies forestais tanto arboradas como de matogueira. En determinadas zonas hai gando extensivo en pasteiros de tipo arbustivo.

Empréganse dous indicadores:

- Superficie forestal
- Superficie forestal sobre superficie total

A medida empregada no primeiro caso é superficie por 1000 Ha e no segundo porcentaxe.

A información sobre a superficie total provén do Instituto Geográfico Nacional

3.2. Calidade da agua.

Os indicadores deste apartado refírense aos sitios monitorizados en augas continentais que teñen unha concentración de nitratos (NO_3) que se pode clasificar en tres categorías (alta, moderada e pobre). A contaminación por nitratos refírese a augas continentais, tanto superficiais como subterráneas.

Os indicadores son os seguintes:

Porcentaxe de sitios monitorizados en augas superficiais con calidades:

- Alta (High quality) : <2 mg/l
- Moderada (Moderate quality): >=2 mg/l e <5,6 mg/l
- Pobre (Poor quality): >=5,6 mg/l

Porcentaxe de sitios monitorizados en augas subterráneas con calidades:

- Alta (High quality): <25 mg/l
- Moderada (Moderate quality): >=25 mg/l e <50 mg/l
- Pobre (Poor quality): >=50 mg/l

Para obter esta información solicitóuselle a Augas de Galicia e as Confederacións Hidrográficas do Cantábrico, Miño-Sil e Douro as medicións de Nitratos nos sitios monitorizadas ao longo dun ano, para as augas superficiais e subterráneas. As medicións clasificáronse en alta, moderada e baixa. Finalmente, xuntáronse os datos das distintas Confederacións e con eles calculáronse as porcentaxes para o total de Galicia.

3.3. Produción de enerxía eléctrica procedente da biomasa e de residuos da biomasa.

O dato de produción de enerxía eléctrica procedente da biomasa e de residuos da biomasa facilítao o Instituto Enerxético de Galicia (INEGA) no “Balance enerxético de Galicia”.

Considérase a biomasa como a enerxía dos residuos forestais e outros tipo de biomasa (exclúese a coxeneración).

3.4. Emisións de gases de efecto invernadoiro procedentes da agricultura.

Empréganse os seguintes indicadores sobre emisións de gases de efecto invernadoiro procedentes da agricultura:

- Emisións de CH_4 e N_2O procedentes da agricultura (1000 toneladas de CO_2 equivalente)
- Emisións de CO_2, CH_4 e N_2O procedente dos solos agrícolas (1000 toneladas de CO_2 equivalente)
- Porcentaxe de emisións da agricultura sobre o total de emisións (1000 toneladas de CO_2 equivalente)

A fonte de información é a Consellería de Medio Ambiente da Xunta de Galicia, órgano competente sobre as cuestións relativas ao cambio climático na Comunidade Autónoma de Galicia. Os datos están dispoñibles en: http://cambioclimatico.cmati.xunta.es/emisions-dos-gases-de-efecto-invernadoiro-en-galicia

Difusión

Os indicadores definidos neste proxecto difundiranse na páxina web do IGE da mesma forma que o resto de indicadores do IGE, é dicir, coa mesma ferramenta de visualización e de xeito separado aos restantes indicadores de contexto do PDR. Un exemplo do formato de difusión pode verse nesta ligazón:

http://www.ige.eu/web/mostrar_seccion.jsp?idioma=gl&codigo=0602

A visualización destes indicadores para Galicia completarase cos restantes indicadores xa incluídos no PDR e procurarase engadir á difusión información de España e da UE-28.

Anexo

Proposed list of common context indicators Update No 5 – 27 January 2014

Proposed list of common context indicators

Update No 5 – 27 January 2014

Revised list of common context indicators:

Socio-economic indicators	Sectorial indicators	Environment indicators
1. Population	13. Employment by economic activity	31. Land cover
2. Age structure	14. Labour productivity in agriculture	32. Less favoured areas
3. Territory	15. Labour productivity in forestry	33. Farming intensity
4. Population density	16. Labour productivity in the food industry	34. Natura 2000 areas
5. Employment rate	17. Agricultural holdings (farms)	35. Farmland birds index (FBI)
6. Self-employment rate	18. Agricultural area	36. Conservation status of agricultural habitats (grassland)
7. Unemployment rate	19. Agricultural area under organic farming	37. HNV farming
8. GDP per capita	20. Irrigated land	38. Protected forest
9. Poverty rate	21. Livestock units	39. Water abstraction in agriculture
10. Structure of the economy	22. Farm labour force	40. Water quality
11. Structure of the employment	23. Age structure of farm managers	41. Soil organic matter in arable land
12. Labour productivity by economic sector	24. Agricultural training of farm managers	42. Soil erosion by water
	25. Agricultural factor income	43. Production of renewable energy from agriculture and forestry
	26. Agricultural entrepreneurial income	44. Energy use in agriculture, forestry and food industry
	27. Total factor productivity in agriculture	45. Emissions from agriculture
	28. Gross fixed capital formation in agriculture	
	29. Forest and other wooded land (FOWL)	
	30. Tourism infrastructure	

Note: changes from previous version are highlighted in yellow.

Socio-economic indicators					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
1	**Population**	Population on 1st January: total and by type of region (predominantly rural, intermediate, predominantly urban)	Total population: - inhabitants In each type of region: - inhabitants - % of total population	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	**Eurostat - Population statistics** • National data: table demo_gind • Regional data: table demo_r_gind3 **Eurostat - Rural development** • National data, by typology: table urt_gind3 • Regional data, by typology: DG AGRI calculation using regional data
		Notes for indicator 1: • *For the distribution of population by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.*			
2	**Age structure**	Population on 1st January by broad age group (less than 15 years / from 15 to 64 years / 65 years or over): total and by type of region (predominantly rural, intermediate, predominantly urban)	Total and in each type of region: - persons in each age group - % of total population	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	**Eurostat - Population statistics** • National data: table demo_pjanbroad • Regional data: table demo_r_pjanaggr3 **Eurostat - Rural development** • National data, by typology: table urt_pjanaggr3 • Regional data, by typology: DG AGRI calculation using regional data
		Notes for indicator 2: • *For the age structure by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.*			
3	**Territory**	Total area (including inland waters) and distribution by type of region (predominantly rural, intermediate, predominantly urban)	Total area: - km^2 In each type of region: - km^2 - % of total area	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	**Eurostat - Population statistics** • National data: DG AGRI calculation using regional data (no table in Eurostat) • Regional data: table demo_r_d3area **Eurostat - Rural development** • National data, by typology: table urt_d3area • Regional data, by typology: DG AGRI calculation using regional data
		Notes for indicator 3: • *For the distribution of territory by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.*			

Socio-economic indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
4	**Population density**	Annual average population / land area [total area (including inland waters) is used when land area is not available]	inhabitants/km^2	• National • Regional (NUTS 1, 2 and 3)	**Eurostat - Population statistics** • National data: table tps00003 • Regional data: table demo_r_d3dens
		Notes for indicator 4: • *To be noted that, according to the Eurostat definition, population density uses different definitions (and data) for population and area than the ones used for indicators 1 and 3.*			
5	**Employment rate** [includes impact indicator 14 "**Rural employment rate**"]	Employed persons (total, males, females) aged 15-64 and 20-64 as a share of total population of the same age class: total and by type of area (thinly-populated, intermediate urbanised and densely-populated)	Total and in each type of area: - % of total population of the same age class and sex	• National • Regional (NUTS 1 and 2) • National, by degree of urbanisation • Regional (NUTS 1 and 2), by degree of urbanisation	**Eurostat – Labour Force Survey** • National data: table lfsi_emp_a • Regional data: table lfst_r_lfe2emprt **Eurostat – Degree of urbanisation** • National data, by degree of urbanisation: table lfsa_pgauws (DG AGRI calculation, see Notes) • Regional data, by degree of urbanisation: on special request to Eurostat
		Notes for indicator 5: • *Exceptions to the standard age group 15-64 are Spain and the United Kingdom, for which data provided correspond to the age group 16-64.* • *For the employment rate by type of area, the degree of urbanisation classification, which classifies local administrative units (LAU2) into thinly-populated areas (= rural), intermediate urbanised areas and densely-populated areas, will be used.* • *Employment rates by degree of urbanisation calculated by DG AGRI using the variables 'Employed persons' and 'Population' from the table lfsa_pgauws.*			
6	**Self-employment rate**	Share of self-employed persons in total employed persons for the age class 15-64	% of self-employed persons 15-64 years in total employed persons of the same age class	• National • Regional (NUTS 1 and 2)	**Eurostat – Labour Force Survey** • National data: table lfsa_egaps • Regional data: table lfst_r_lfe2estat
		Notes for indicator 6: • *Exceptions to the standard age group 15-64 are Spain and the United Kingdom, for which data provided correspond to the age group 16-64.* • *Self-employment rates calculated by DG AGRI using the variables 'Self-employed persons' and 'Employed persons' from the tables mentioned; self-employment rates can be also calculated for men, women and other age groups.*			

<table>
<tr><th colspan="6">Socio-economic indicators (cont.)</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Unemployment rate</td><td>Unemployed persons (total, males, females) aged 15-24 (youth unemployment rate) and 15-74 (total unemployment rate) as a share of total active population of the same age class: total and by type of area (thinly-populated, intermediate urbanised and densely-populated)</td><td>Total and in each type of area:
- % of total active population of the same age class and sex</td><td>• National
• Regional (NUTS 1 and 2)
• National, by degree of urbanisation
• Regional (NUTS 1 and 2), by degree of urbanisation</td><td>Eurostat – Labour Force Survey
• National data: table une_rt_a
• Regional data (NUTS 1 and 2): table lfst_r_lfu3rt

Eurostat – Degree of urbanisation
• National data, by degree of urbanisation: table lfsa_pgauws (DG AGRI calculation, see Notes)
• Regional data, by degree of urbanisation: on special request to Eurostat</td></tr>
<tr><td colspan="4">Notes for indicator 7:
• Exceptions to the standard age groups 15-24 and 15-74 are Spain and the United Kingdom, for which data provided correspond to the age groups 16-24 and 16-74.
• For the unemployment rate by type of area, the degree of urbanisation classification, which classifies local administrative units (LAU2) into thinly-populated areas (= rural), intermediate urbanised areas and densely-populated areas, will be used.
• Unemployment rates by degree of urbanisation calculated by DG AGRI using the variables ‘Unemployed persons’ and ‘Active population’ from the table lfsa_pgauws.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">GDP per capita [includes impact indicator 16 "Rural GDP per capita"]</td><td>GDP per capita: total and by type of region (predominantly rural, intermediate and predominantly urban)</td><td>Total and in each type of region :
- EUR/inhabitant
- PPS/inhabitant
- index PPS (EU-27 = 100)</td><td>• National
• Regional (NUTS 1, 2 and 3)
• National, by typology
• Regional (NUTS 1 and 2), by typology</td><td>Eurostat – National and Regional Economic Accounts
• National data: table nama_gdp_c
• Regional data: table nama_r_e3gdp

Eurostat - Rural development
• National data, by typology: table urt_e3gdp
• Regional data, by typology: DG AGRI calculation using regional data</td></tr>
<tr><td colspan="4">Notes for indicator 8:
• For the GDP per capita by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.</td></tr>
</table>

Socio-economic indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
9	**Poverty rate** [includes impact indicator 15 "**Degree of rural poverty**"]	People at-risk-of poverty or social exclusion (people at-risk-of-poverty or severely deprived or living in a household with low work intensity over the total population): total and by type of area (thinly-populated, intermediate urbanised and densely-populated)	Total and in each type of area: - % of total population	• National • Regional (NUTS 1 and 2) • National, by degree of urbanisation • Regional (NUTS 1 and 2), by degree of urbanisation	**Eurostat – Survey on income and living conditions (SILC)** • National data: table ilc_peps01 • Regional data: table ilc_peps11 (regional data is not available for some MS, see Notes) **Eurostat – Degree of urbanisation** • National data, by degree of urbanisation: table ilc_peps13 • Regional data is not available (see Notes)
		Notes for indicator 9: • *For the poverty rate by type of area, the degree of urbanisation classification, which classifies local administrative units (LAU2) into thinly-populated areas (= rural), intermediate urbanised areas and densely-populated areas, will be used.* • *Regional data for some MS with regional RDPs (DE, FR, PT, UK) and regional data by degree of urbanisation for all MS are not available in Eurostat. Explanation received from Eurostat:* o *These data are based on a survey (SILC). The survey precision requirements are formulated at the national level. There is no EU obligation for MS to extend the sample size so as to make it representative at the regional level. However, some MS have extended the survey for national reasons and for those countries data at regional level are available.* o *Since a while, DG REGIO does insist that improvements of the coverage of regional data should take place. Discussions with MS on the topic are however difficult, as the extension of the sample would imply significant additional costs for them in the current situation of budget cuts in the statistical offices. A scenario is under discussion. It could allow, if successful, to give estimations by NUTS2 about the year 2014 (data would be available in 2016). Furthermore, in this scenario, SILC would be able to deliver routinely information at some regional level starting in 2018.* o *The cross-tabulation of NUTS regions by degree of urbanisation is however not envisaged in the medium to long term.*			

Socio-economic indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
10	**Structure of the economy**	Total gross value added (GVA) (at basic prices) and distribution by sector (primary, secondary, tertiary) and by type of region (predominantly rural, intermediate and predominantly urban)	Total GVA: - EUR million For each sector: - EUR million and % of total GVA In each type of region: - EUR million and % of total GVA	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	**Eurostat – National and Regional Economic Accounts** • National data: table nama_nace10_c • Regional data: table nama_r_e3vab95r2 • National and regional data, by typology: DG AGRI calculation using regional data
		Notes for indicator 10: • *Sectors in NACE rev.2: Primary sector = branch A (agriculture, forestry and fishing); Secondary sector = branches B-E + F (industry + construction); Tertiary sector = branches G-I + J + K + L + M-N + O-Q + R-U.* • *For the distribution of GVA by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.*			
11	**Structure of the employment**	Total employment and distribution by sector (primary, secondary, tertiary) and by type of region (predominantly rural, intermediate and predominantly urban)	Total employment: - 1000 persons For each sector: - 1000 persons and % of total employment In each type of region: - 1000 persons and % of total employment	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	**Eurostat – National and Regional Economic Accounts** • National data: table nama_nace10_e • Regional data: table nama_r_e3em95r2 • National and regional data, by typology: DG AGRI calculation using regional data
		Notes for indicator 11: • *For the definition of sectors, see Notes for indicator 10.* • *For the distribution of employment by type of region, DG AGRI proposes the use of the Commission urban-rural typology, which classifies NUTS 3 regions into predominantly rural, intermediate and predominantly urban.* • *The table nama_r_e3em95r2 has not yet bee adapted to the NUTS 2010 classification and is still using the old NUTS 2006 classification. Thus, in the countries with changes in the NUTS regions (DE, IT, NL, FI, UK, HR), data by typology of regions cannot be calculated yet and then is missing at both national and regional levels. Data for these countries will be included in the database once available in Eurostat and the calculations using the urban-rural typology will be made.*			

Socio-economic indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
12	**Labour productivity by economic sector**	GVA per employed person, total and by sector (primary, secondary, tertiary) and by type of region (predominantly rural, intermediate and predominantly urban)	EUR/person	• National • Regional (NUTS 1, 2 and 3) • National, by typology • Regional (NUTS 1 and 2), by typology	• National and regional data: DG AGRI calculation using national and regional data from indicators 10 and 11
		Notes for indicator 12: • *For the definition of sectors, see Notes for indicator 10.*			

<table>
<tr><th colspan="6">Sectorial indicators</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td>13</td><td>Employment by economic activity</td><td>Total employment and by economic activity: agriculture, forestry, food industry and tourism</td><td>1000 persons and % of total</td><td>• National
• Regional (NUTS 1 and 2)</td><td>Eurostat – Labour Force Survey
• National data: tables lfsa_egan2 and lfsa_egan22d
• Regional data: on special request to Eurostat</td></tr>
<tr><td></td><td></td><td colspan="4">Notes for indicator 13:
• Sectors in NACE rev.2: Agriculture = Crop and animal production, hunting and related activities (A01); Forestry = Forestry and logging (A02); Food industry = Manufacture of food products (C10) + Manufacture of beverages (C11) + Manufacture of tobacco products (C12); Tourism = Accommodation (I55) + Food and beverage service activities (I56).
• Age: 15 years or over, except for Spain and the United Kingdom where data corresponds to 16 years and over.</td></tr>
<tr><td>14</td><td>Labour productivity in agriculture</td><td>Total GVA per full-time employed person in agriculture</td><td>EUR/AWU</td><td>• National
• Regional (NUTS 1 and 2)</td><td>GVA at basic prices
Eurostat – Economic Accounts for Agriculture
• National data: table aact_eaa01
• Regional data: table agr_r_accts (data not available for some MS)

Employment
Eurostat – Agriculture Labour Input Statistics (ALI)
• National data: table aact_ali01
• Regional data is not available in Eurostat but can be estimated (see Notes)</td></tr>
<tr><td></td><td></td><td colspan="4">Notes for indicator 14:
• Variables for tables aact_eaa01 and agr_r_accts: production value at basic price; GVA at basic prices (20000).
• When data availability makes it possible, a three year average mitigates the short-term fluctuations. Labour productivity is then calculated as the ratio of the averages: 3 year average GVA / 3 year average employment.
• Labour productivity in agriculture at regional level has been estimated: different proxies have been used to estimate missing data on GVA (for BE, DE, ES, FI, UK) and employment (all countries).</td></tr>
</table>

Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
15	**Labour productivity in forestry**	Total GVA per full-time employed person in forestry	EUR/AWU	• National	**Eurostat – Forestry statistics (Economic and employment)** ***GVA at basic prices*** • National data: table for_ieeaf_cp (data not available for some MS) • Regional data is not available in Eurostat ***Employment*** • National data: table for_awu (data not available for some MS) • Regional data is not available in Eurostat
		Notes for indicator 15: • *When data availability makes it possible, a three year average mitigates the short-term fluctuations. Labour productivity is then calculated as the ratio of the averages: 3 year average GVA / 3 year average employment.* • *This indicator can only be calculated at national level and not for all MS.*			
16	**Labour productivity in the food industry**	GVA per person employed in the food industry	EUR/person	• National • Regional (NUTS 1 and 2)	***GVA*** **Eurostat – National Accounts** • National data: table nama_nace38_c • Regional data is not available in Eurostat ***Employment*** **Eurostat – National Accounts** • National data: table nama_nace38_e **Eurostat – Labour Force Surve** • Regional data on employment can be found in indicator 13
		Notes for indicator 16: • *Sectors in NACE rev.2 = Manufacture of food products; beverages and tobacco products (C10-C12).* • *When data availability makes it possible, a three year average mitigates the short-term fluctuations. Labour productivity is then calculated as the ratio of the averages: 3 year average GVA / 3 year average employment.* • *Regional data on GVA in the food industry is not available in Eurostat.*			

Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
17	**Agricultural holdings (farms)**	Total number of holdings, average size (in ha UAA, EUR, persons and AWU) and breakdown by category of size (see existing categories in the Notes)	For total: - 1000 holdings For average size: - ha UAA/holding - EUR of SO/holding - persons and AWU/holding For each category of size: - 1000 holdings and % of total	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National and regional data: tables ef_kvaareg and ef_kvecsleg
		Notes for indicator 17: • *Categories for agricultural size of farm (UAA in ha): Zero ha, Less than 2 ha, From 2 to 4.9 ha, From 5 to 9.9 ha, From 10 to 19.9 ha, From 20 to 29.9 ha, From 30 to 49.9 ha, From 50 to 99.9 ha, 100 ha or over.* • *Categories for economic size of farm (Standard output - SO in EUR): Zero EUR, Less than 2 000 EUR, From 2 000 to 3 999 EUR, From 4 000 to 7 999 EUR, From 8 000 EUR to 14 999 EUR, From 15 000 to 24 999 EUR, From 25 000 to 49 999 EUR, from 50 000 to 99 999 EUR, From 100 000 to 249 999 EUR, From 250 000 to 499 999 EUR, 500 000 EUR or over.*			
18	**Agricultural area**	Total utilised agricultural area (UAA) and hectares of arable land, permanent grassland and meadow and permanent crops	For total UAA: - 1000 ha For each category: - 1000 ha - % of total UAA	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National and regional data: table ef_oluaareg
		Notes for indicator 18: • *Codes for land use: arable land (B_1_HA), permanent grassland and meadow (B_3_HA) and permanent crops (B_4_HA).*			
19	**Area under organic farming**	UAA under organic farming	ha and % of total UAA	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National and regional data: table ef_mporganic
		Notes for indicator 19: • *Variables for table ef_mporganic: AGRAREA_HA (ha: Utilised agricultural area), A_3_2_1_HA (ha: Organic farming – certified), A_3_2_2_HA (ha: Farming system - Conversion to organic farming), A_3_2_3_HA (ha: Organic farming (incl. in conversion)).*			

Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
20	**Irrigated land**	Total irrigated land	ha and % of total UAA	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS), Survey on Agriculture Production Methods (SAPM) 2010** • National and regional data: table ef_poirrig
		Notes for indicator 20: • *Irrigated area is defined as the area of crops that have actually been irrigated at least once during the 12 months prior to the reference day of the survey. Crops under glass and kitchen gardens, which are almost always irrigated, should not be included.* • *LU does not collect these data.*			
21	**Livestock units**	Number of livestock units (LSU)	LSU	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National and regional data: table ef_olsaareg
		Notes for indicator 21: • *For the coefficients used to calculate the livestock units in the FSS 2010, see Annex I of Commission Regulation (EC) No 1200/2009 (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009R1200:EN:NOT).*			
22	**Farm labour force**	Total and by sex for the different categories of farm labour force: - regular labour force: - family labour force: - sole holders working in the farm - members of the sole holder's family working in the farm - non-family labour force - non-regular labour force (only AWU)	For every category of regular labour force: - 1000 persons or 1000 AWU - % of total regular labour force For the data by sex: - 1000 persons or 1000 AWU - % of total persons or AWU in the same category	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National and regional data: tables ef_kvaareg, ef_olfaa and ef_olfftecs
		Notes for indicator 22: • *Both persons and AWU are important; in many countries/regions these values can be very different because of part-time farming.*			

Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
23	**Age structure of farm managers**	Total and by age (35 years or less, 35-55 years, 55 years or more)	For total: - 1000 persons For age: - 1000 persons - % of total farm managers - ratio of young managers to elderly managers	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National data: table ef_kvage • Regional data: on special request to Eurostat
		Notes for indicator 23: • *In the FSS, the manager of the holding is the natural person responsible for the normal daily financial and production routines of running the holding concerned. The holder is the natural person, group of natural persons or legal person on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding, i.e. who takes the economic risks of the holding. The manager and the holder can be the same person.* • *Data at regional level (NUTS 1 or 2) on the age of farm managers are not available in the Eurostat public database and need to be requested to Eurostat.*			
24	**Agricultural training of farm managers**	Farm managers by age (35 years or less, 35-55 years, 55 years or more) and level of agricultural training: basic training, practical experience only, full agricultural training	For each category age: - number of managers with each level of training - % of total farm managers of the same age	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS)** • National data: table ef_mptrainman • Regional data: on special request to Eurostat
		Notes for indicator 24: • *For the definition of farm manager, see Notes for indicator 23.* • *Data at regional level (NUTS 1 or 2) on the training of farm managers are not available in the Eurostat public database and need to be requested to Eurostat.*			

<table>
<tr><th colspan="6">Sectorial indicators (cont.)</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td>25</td><td>Agricultural factor income [impact indicator 2]</td><td>Share of gross value added at factor cost (factor income in agriculture) per annual work unit, over time (see Notes)</td><td>EUR/AWU or index</td><td>• National
• Regional (NUTS 1 and 2)</td><td>For agricultural factor income
Eurostat – Economic Accounts for Agriculture (EAA)
• National data: table aact_eaa01
• Regional data: table agr_r_accts
For employment
Eurostat – Agriculture Labour Input Statistics (ALI)
• National and regional data: use the data calculated for indicator 14</td></tr>
<tr><td colspan="6"><u>Notes for indicator 25</u>:
• Variables for tables aact_eaa01 and agr_r_accts: production value at basic price; 26000 Factor income.
• The components of the indicator are:
o Agricultural factor income, which represents income generated by farming activities (i.e. off-farm activities are not included), and 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).

Value of agricultural production
- variable inputs (fertilisers, pesticides, feed etc)
- depreciation
- total taxes (on products and production)
<u>+ total subsidies (on products and production)</u>
= Factor income
- wages
- rents } borrowed/rented production factors (1)
<u>- interest paid</u>
= Entrepreneurial income (family farm income)
which includes own production factors (2)

o The annual working unit (AWU) which is defined as full-time equivalent employment (corresponding to a full-time equivalent job), i.e. as total hours worked divided by the average annual number of hours worked in a full-time job within the economic territory. A distinction is drawn between non-salaried and salaried AWUs, which together make up total AWUs. One person cannot represent more than one AWU. The indicator uses total AWUs.
• The index of agricultural factor income per AWU is already available (at national level) in the Eurostat Economic Accounts for Agriculture as Indicator A. This yardstick corresponds to the real net value added at factor cost of agriculture per total AWU.</td></tr>
</table>

Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
26	**Agricultural entrepreneurial income** [impact indicator 1]	• **Standard of living of farmers**: agricultural entrepreneurial income (net agricultural entrepreneurial income in real terms) per unpaid (non-salaried) annual work unit	EUR/AWU	• National • Regional (NUTS 1 and 2)	**Eurostat – Economic Accounts for Agriculture (EAA)** • National data: table aact_eaa04 • Regional data (in current prices): table agr_r_accts (data in real prices can be estimated, see Notes) **Eurostat – Agriculture Labour Input Statistics (ALI)** • National data: table aact_ali01 • Regional data is not available in Eurostat but can be estimated (see Notes)
		• **Standard of living of farmers as a share of the standard of living of employees in the whole economy** (based on EUR/hour worked) (see Notes for the methodology)	%	-	**Eurostat – National Accounts** • National data: tables nama_nace10_c (wages and salaries) and nama_nace10_e (employment) • Regional data is not available in Eurostat
		Notes for indicator 26: • *The agricultural entrepreneurial income represents the income generated by farming activities only and which is used to reward 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 (see scheme in the Notes for indicator 25).* • *Variables for tables aact_eaa04 and agr_r_accts: production value at basic price; 31000 Entrepreneurial income.* • *Comparison between the standard of living of farmers and the standard of living of employees in the whole economy:* *1. Data on agricultural entrepreneurial income in current prices (EUR million) is divided by the number of hours of non-salaried work in agriculture (each AWU representing 1 800 hours/year). Results are shown in EUR/hour of non-salaried work in agriculture.* *2. Data on wages and salaries in the whole economy (EUR million) is divided by the number of hours worked by employees (all NACE activities). Results are shown in EUR/hour.* *3. The obtained EUR/hour of non-salaried work in agriculture is divided by the result obtained for the whole the economy in EUR/hour.* • *Estimation of regional data:* o *Net agricultural entrepreneurial income in real terms is not available in Eurostat, only data in current terms is available in table agr_r_accts (variables: Production value at basic prices and Entrepreneurial income – in this table data is not available for all MS). To convert current values to constant values, a deflator has to be used: a national deflator can be*			

		calculated for each country and used to deflate current values at regional level. o *For agricultural labour at regional level, a similar proxy as the one used in indicator 14 can be used. In this case, the estimation should be done using only non-salaried AWU from the FSS.* • *In the EAA the agricultural entrepreneurial income/non-salaried AWU can be calculated in real terms or as index.* o *In real terms: data on agricultural entrepreneurial income in real prices (EUR million) is divided by the number of non-salaried AWU in agriculture in 1000 persons. Results are shown in EUR/non-salaried AWU.* o *The index of agricultural entrepreneurial income/unpaid AWU is available as Indicator B in Eurostat's EAA.*			
27	**Total factor productivity in agriculture** [impact indicator 3]	**Total factor productivity index**: ratio between an output index (i.e. the change in production volumes over a considered period) and an input index (the corresponding change in inputs/factors used to produce them)	Index values (2005 = 100) (3 years average)	-	**Eurostat – Economics Accounts for Agriculture** • For production volumes and values of several outputs (agricultural products) at the most detailed level of disaggregation **Eurostat – Land use survey** • For the volume index of the UAA **Eurostat – Farm Structure Survey** • To assess the share of rented land (in order to correct the weight of land by including the own land)
		Notes for indicator 27: • *Total factor productivity (TFP) compares total outputs relative to the total inputs used in production of the output (both output and inputs are expressed in term of volumes). TFP reflects output per unit of some combined set of inputs: an increase in TFP reflects a gain in output quantity which is not originating in an increase of input use. As a result, TFP reveals the joint effects of many factors including new technologies, economies of scale, managerial skill, and changes in the organization of production.* • *Calculation of total factor productivity requires a large amount of data, many of which are incomplete and/or require estimations and interpolations. The calculation of regional values is not possible due to the lack of data at such detailed geographical level. National index could be used instead in regional RPDs.*			
28	**Gross fixed capital formation in agriculture**	The investments in assets which are used repeatedly or continuously over a number of years to produce goods in agriculture	EUR million and % of GVA in agriculture	• National • Regional (NUTS 1 and 2)	**Eurostat – Economic Accounts for Agriculture** • National data: table aact_eaa03 • Regional data: table agr_r_accts **Eurostat – National Accounts** (for GVA) • National data: tables nama_nace10_c and nama_nace64_c • Regional data: table nama_r_e3vab95r2
		Notes for indicator 28: • *GFCF measures how much of the value added is invested rather than consumed and is a key element for future competitiveness.* • *Variables for tables aact_eaa01 and agr_r_accts: Production value at basic price; 34000 Gross fixed capital formation (excluding deductible VAT).* • *Variables for table nama_nace64c: Gross value added (at basic prices); Crop and animal production, hunting and related service activities. Variables for tables nama_nace10c and nama_r_e3vab95r2: Gross value added (at basic prices); Agriculture, forestry and fishing. GVA in the whole primary sector is used when disaggregated data for GVA in agriculture is not available (all regional data, some MS at national level).*			

		• *GVA in the primary sector is used when disaggregated data on GVA in agriculture is not available (all regional data and some MS).*			
Sectorial indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
29	**Forest and other wooded land (FOWL)**	Total area of forests and other wooded land (FOWL)	1000 ha and % of total land	• National	**Eurostat – Forestry statistics (Sustainable forest management)** • National data: table for_area • Regional data is not available
		Notes for indicator 29: • *Variable for table for_area: FOROWL (Total area of forests and other wooded land). Total land taken from indicator 4.* • *Eurostat data based on the State of Europe's Forests 2011 Report prepared by Forest Europe, Unece and FAO (http://www.unece.org/forests/fr/outputs/soef2011.html - Table A1.2). Frequency: every 5 years.*			
30	**Tourism infrastructure**	Number of bed-places in collective tourist accommodation establishments: total and by degree of urbanisation (thinly-populated areas, intermediate areas and densely-populated areas)	Total: - number of bed places By degree of urbanisation: - number of bed places - % of total	• National • Regional (NUTS 1 and 2) • National, by degree of urbanisation • Regional (NUTS 1 and 2), by degree of urbanisation	**Eurostat – Tourism statistics** • National data, including by degree of urbanisation: table tour_cap_natd • Regional data, including by degree of urbanisation: table tour_cap_nuts2d
		Notes for indicator 30: • *'Collective tourist accommodation establishments' include hotels, holiday and other short-stay accommodation, camping grounds, recreational vehicle parks and trailer parks (NACE r.2 divisions I551-I553 in the mentioned tables).* • *From year 2012 tourism statistics are provided for NUTS 1 and 2 and are also calculated by degree of urbanisation.*			

Environment indicators

No	Indicator	Definition / Calculation	Measurement	Data level	Data sources

31	**Land cover**	Area in the different categories of land cover:
		- Total agricultural area:
		  - Agricultural area
		  - Natural grassland
		- Total forest area:
		  - Forest area
		  - Transitional woodland-shrub
		- Natural area
		- Artificial area
		- Other area (includes sea and inland water)
			% of total area	• National
				• Regional (NUTS 1 and 2)
					Corine Land Cover
					• National and regional data: DG AGRI calculation

Notes for indicator 31:

- *Corine Land Cover files: http://www.eea.europa.eu/data-and-maps/data/clc-2006-vector-data-version-2*
- *Reference year = 2006.*
- *Reclassification used:*

Level 1	Level 2	Level 3	Reclassification
1 Artificial surfaces	1.1 Urban fabric		Artificial
	1.2 Industrial, commercial and transport units		Artificial
	1.3 Mine, dump and construction sites		Artificial
	1.4 Artificial, non-agricultural vegetated areas		Artificial
2 Agricultural areas	2.1 Arable land		Agricultural
	2.2 Permanent crops		Agricultural
	2.3 Pastures		Agricultural
	2.4 Heterogeneous agricultural areas		Agricultural
3 Forest and seminatural areas	3.1 Forests		Forest
	3.2 Scrub and/or herbaceous vegetation associations	3.2.1 Natural grasslands	Agricultural
		3.2.2 Moors and heathland	Natural
		3.2.3 Sclerophyllous vegetation	Natural
		3.2.4 Transitional woodland-shrub	Forest
	3.3 Open spaces with little or no vegetation		Natural
4 Wetlands	4.1 Inland wetlands		Natural
	4.2 Maritime wetlands		Sea
5 Water bodies	5.1 Inland waters		Inland water
	5.2 Marine waters		Sea

<table>
<tr><th colspan="6">Environment indicators (cont.)</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td>32</td><td>Less favoured areas</td><td>UAA in the different categories of LFA:
- non LFA
- LFA, of which:
  - LFA mountain
  - LFA other
  - LFA specific</td><td>% of total UAA</td><td>• National</td><td>DG AGRI
• National data: DG AGRI calculation</td></tr>
<tr><td colspan="5"><u>Notes for indicator 32</u>:
• Data on LFA currently available are mostly based on data from 2005 (2007 for BG, 2008 for RO). Data collected under Council Regulation (EC) No 1257/99:
  o Mountain areas (including areas north of the 62nd parallel and certain adjacent areas): Art. 18;
  o Areas affected by significant natural handicaps: Art. 19;
  o Areas affected by specific handicaps: Art. 20.
• No regional data is available.
• Commission's legal proposals for the CAP post 2013 define two principal areas: 'Mountain areas (incl. areas north of the 62nd parallel and certain adjacent areas)' and 'Other areas with natural and specific constraints'. While no revision of the delimitation of mountain areas as well as of the areas with specific constraints is foreseen in the proposal, the areas with natural constraints should be based on a new delimitation mechanism. New data on the LFA areas and on the UAA under LFA should be reported by Member States for the preparation of the new programming period after 2013.</td></tr>
<tr><td rowspan="3">33</td><td rowspan="3">Farming intensity</td><td>Farm input intensity: UAA managed by farms with low/medium/high input intensity per ha</td><td>% of total UAA</td><td rowspan="2">• National
• Regional (NUTS 1 and 2)</td><td>Eurostat and FADN
• National data: table aei_ps_inp
• Regional data: DG AGRI calculation</td></tr>
<tr><td>Areas of extensive grazing: UAA utilised for extensive grazing (UAA with livestock density < 1 LU/ha of forage area)</td><td>% of total UAA</td><td>Eurostat – Farm Structure Survey (FSS)
• National and regional data: several tables used, DG AGRI calculation</td></tr>
<tr><td colspan="5"><u>Notes for indicator 33</u>:
• Inputs considered for the sub indicator "Farm input intensity" are fertilisers, pesticides and feedstuff purchased by the holdings. This sub indicator is based on the agri-environmental indicator 12 "Intensification/extensification", which measures the trends on the use of these inputs. See methodology on the indicator's factsheet (http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Agri-environmental_indicator_-_intensification_-_extensification).
• Areas of extensive grazing: grazing livestock production (cattle, sheeps, goats) with a stocking density not exceeding 1 livestock unit per ha of forage area (forage crops, permanent pastures and meadows and common land).</td></tr>
</table>

Environment indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
34	**Natura 2000 areas**	- Territory under N2000 - UAA under N2000 - Forest area under N2000	% of total territory / UAA / forest areas	• National • Regional (NUTS 1 and 2)	**EEA and DG ENV** (Natura 2000 Barometer & Natura 2000 spatial database) • National and regional data: prepared by DG AGRI
		Notes for indicator 34: • *Website: http://ec.europa.eu/environment/nature/natura2000/barometer/index_en.htm* • *Annual data. Data is available one year later: 2012 data will be available in May 2013.*			
35	**Farmland birds index (FBI)** [impact indicator 8]	Composite index that measures the rate of change in the occurrence of common bird species that are dependent on farmland for feeding and nesting and are not able to thrive in other habitats	Composite index: Trends of index of population of farmland birds (base year 2000 = 100)	• National	**Eurostat – Environment statistics** • National data: table env_bio2 • Regional data is not available in Eurostat
		Notes for indicator 35: • *Primary source: PECBM (Pan-European Common Bird Monitoring).* • *National data: 2008 data available for 18 MS (data missing for BE, EL, CY, LT, LU, MT, PT, RO, SI, SK, HR) (36 species included in 2008). Base year: 2000.* • *Regional data: few projects exist in some countries to get regionalised data.*			

<table>
<tr><th colspan="6">Environment indicators (cont.)</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td>36</td><td>Conservation status of agricultural habitats (grassland)</td><td>Assessments of agricultural habitats (grasslands) that have a favourable / unfavourable-inadequate / unfavourable-bad / intermediate conservation status</td><td>For each type of assessment:
- ha
- % of total assessments of habitats</td><td>• National</td><td>European Commission - DG ENV
• National data: prepared by DG ENV (see Notes)
• Regional data (NUTS) is not available (see Notes)</td></tr>
<tr><td colspan="5"><u>Notes for indicator 36</u>:
• The indicator on conservation of agricultural habitats is essential for the diagnostic and SWOT of RDPs. It will enable to assess the level of ambition of the Natura 2000 measures proposed by MS in the programme for the focus area on biodiversity. The information is complementary to the FBI which is not an indicator on habitats and only focused on common birds. It is also relevant for the first pillar as EFA, the grassland measure of the greening and cross compliance are complementary key elements which contribute to the improvement of the conservation status.
• Data reported by the MS for this indicator has been/will be prepared by DG ENV for their use in the RDPs:
o For the 2001-2006 reporting, the figures on grassland (only dataset available in relation to agriculture since the habitats directive only covers habitats related to grassland, none on permanent crops and arable), for each MS at national level and also broken down by biogeographical level, are already available. BG, RO and HR were not covered.
o For the 2007-2012 reporting, data will also be available for grassland for each MS at national level, and also broken down by biogeographical level. In some MS, the data will also most probably be collected at NUTS 2 level (UK, IT, DE, BE), but it has to be discussed with those MS their potential availability. An indicator will be provided in 2014-15 (depending on MS reporting) on the basis of the data reported by MS in 2013 and used for the monitoring of progress in reaching Target 3a of the EU 2020 Biodiversity Strategy.
o For the 2013-2018 reporting, the feasibility of a split at NUTS 2 level is under discussion.
• Data for the biogeographical regions in each MS have been included in the database. Maps and more information on the biogeographical regions can be found in the following link:
http://ec.europa.eu/environment/nature/natura2000/sites_hab/biogeog_regions/index_en.htm</td></tr>
<tr><td>37</td><td>HNV farming [impact indicator 9]</td><td>UAA farmed to generate High Nature Value</td><td>% of total UAA</td><td>-</td><td>-</td></tr>
<tr><td colspan="5"><u>Notes for indicator 37</u>:
• It is not possible to define a common methodology for the whole EU: each MS/MA should asses this indicator at the appropriate level using best available data and provide values to the Commission.
• This indicator should show trends in each territory (MS and regional levels).
• More details are provided in the fiche prepared for the impact indicator 9.</td></tr>
</table>

Environment indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
38	**Protected forest**	Share of FOWL protected to conserve biodiversity, landscapes and specific natural elements according to MCPFE Assessment Guidelines	% of FOWL area protected under MCPFE classes	• National	**State of Europe's Forests 2011 Report** • National data: table A4.13 • Regional data is not available
		Notes for indicator 38: • *State of Europe's Forests 2011 Report prepared by Forest Europe, Unece and FAO (http://www.unece.org/forests/fr/outputs/soef2011.html). Frequency: every 5 years.* • *MCPFE classes for 'Protected FOWL to conserve biodiversity, landscapes and specific natural elements':* o *Class 1: Main management objective 'Biodiversity conservation':* ▪ *Class 1.1: No active intervention* ▪ *Class 1.2: Minimum intervention* ▪ *Class 1.3: Conservation through active management* o *Class 2: Main management objective 'Protection of landscapes'.*			
39	**Water abstraction in agriculture** [impact indicator 10]	Volume of water which is applied to soils for irrigation purposes	m^3	• National • Regional (NUTS 1 and 2)	**Eurostat – Farm Structure Survey (FSS), Survey on Agriculture Production Methods (SAPM) 2010** • National and regional data: table ef_poirrig
		Notes for indicator 39: • *Code in the database: M_8_4_M3.* • *LU does not collect this data.*			
40	**Water quality** [impact indicator 11]	1. Gross Nutrient Balance (4 year average): 1.a) Potential surplus of nitrogen (GNS) on agricultural land 1.b) Potential surplus of phosphorus on agricultural land	1.a) kg N/ha/year (nitrogen) 2.b) Kg P/ha/year (phosphorus)	• National	**Eurostat – Agri-Environmental indicators** • National data: table aei_pr_gnb • Regional data is not available (see Notes)
		2. Nitrates in freshwater 2.a) Groundwater 2.b) Surface water	% of monitoring sites in 3 water quality classes (high – moderate – low)	• National	**European Environmental Agency** (EEA) website : Waterbase_rivers, Waterbase_groundwaters, CSI020 , http://www.eea.europa.eu/data-and-maps/indicators/nutrients-in-freshwater; **DG ENV** (on request) – Nitrate Directive: Unit B1 (no publicly available).
		Notes for indicator 40: • *Gross Nutrient Balance*			

		o *National data: For some countries data are estimated by Eurostat. No data for HR. Variable for table aei_pr_gnb: BAL_HA (Gross Nutrient Balance per hectare (arable land, permanent crops, permanent grassland) (kg of nutrient per ha)).* o *Regional data: Eurostat only provides regional data for BE. A Task Force for the Regionalization of GNB data has been set up and a pilot project is just started to regionalise GNB in 5 countries by means of CAPRI and in collaboration with the JRC-ISPRA, ESTAT, etc... First results would be available at the end of 2014 for those countries. The objective would be to extend the project to all 27 MSs and get regional data for the EU-27. This has to be discussed with MSs to get their agreement and if everything goes well first results for the EU-27 should be available at some point between 2015 and 2018.* o *The indicator is measured as 4 year average (2005-2008).* • *<u>Nitrates in freshwater</u>* o *The* three water quality classes are defined as follows. <u>High quality</u>: concentration close to natural values or within the threshold indicated in the legislation for low-polluted water. <u>Moderate quality</u>: concentration above natural standard but still below hazardous level. <u>Poor quality</u>: concentration above hazardous level. The actual concentration classes are the following. <u>Groundwater</u>: High ("<10" + ">=10 and <25") - Moderate (">=25 and <50") - Poor (">=50"). <u>Surface water</u>: High ("<0.8" + ">=0.8 and <2.0")- Moderate (">=2.0 and <3.6" + ">=3.6 and >5.6") - Poor (">=5.6 and <11.3" + ">=11.3"). The concentration of nitrate is expressed as mg/L of nitrates (NO_3-mg/L) for groundwater and mg/L of nitrogen (N-mg/L) for rivers. o *The more detailed geographical level we can have from EEA/DG ENV data is the national one (for NUTS 2 level the number of monitoring sites would not be statistically representative and the hotspots are levelled out at regional level and influenced from upstream regions).* o *In 2008, 2009 and 2010 data on rivers were missing for MT. For groundwater, data were missing for EL, IT, LV, HU, MT. No data for HR.* • *Pesticides in freshwater has been deleted because there is no data even at national level. Source at MS level to be explored for inclusion as specific indicator.*			
41	**Soil organic matter in arable land** [impact indicator 12]	Estimates of Soil Organic Carbon (SOC) stocks in topsoil in arable land: - total SOC stock in top 30 cm of the topsoil - mean SOC concentration (and STD)	- <u>total SOC</u>: megatonnes (Mt) - <u>mean SOC</u>: g/kg	• National	**Joint Research Centre (JRC)** • National data prepared by the JRC (see Notes)
		<u>Notes for indicator 41:</u> • *This indicator is elaborated by the JRC using LUCAS Land use survey. Regional data cannot be calculated. Frequency is uncertain: the availability of this data in the future will depend on the future of LUCAS survey still uncertain and under discussion.* • *The mean SOC concentration is indicated solely for orientation purposes since it has very limited scientific meaning given the high variability of SOC concentration in different areas and different moments in time.* • *2009 data is not available for BG, RO and HR. 2012 data for BG and RO will be probably available by the end of 2013.* • *Since data are available only at national level and given the high regional variability of SOC content, Member States are invited*			

		to make reference to their own regional data where available.

Environment indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
42	**Soil erosion by water** [impact indicator 13]	Soil erosion by water: mean estimated rate of soil loss by water erosion	tonnes/ha/year	• National • Regional (NUTS 1)	**Joint Research Centre (JRC)** • National and regional data: data prepared by the JRC (see Notes)
		Agricultural areas at risk of soil erosion by water: estimated agricultural area affected by moderate to severe water erosion (>11 t/ha/yr) and share of total	- ha of total agricultural area and % of total - ha of arable and permanent crop area and % of total - ha of permanent meadows and pasture and % of total	• National • Regional (NUTS 1, 2 and 3)	
		Notes for indicator 42: • *Agri-environmental indicator (AEI) 21.* • *Frequency of data is uncertain. The indicator could probably be updated by the JRC in 5-10 years time.* • *Corine Land Cover classes: Total agricultural area (12-22+26), Arable and permanent crop area (12-17, 19-22), Permanent meadows and pasture (18, 26).* • *In 2010, the European Soil Data Centre (ESDAC) invited the Primary Contact Points (PCPs) of EIONET to contribute to a data collection campaign of EIONET-SOIL in order to develop the European datasets for soil erosion and Soil Organic Carbon (SOC). There was no legal obligation for the EIONET member countries to participate and PCPs and NRCs for soil contributed on a voluntary basis. 18 EIONET countries did not reply or declared that they do not own the requested soil data and/or refused to deliver data due to legal issues or other restrictions.* *Due to this fact some discrepancies could appear between the data collected at Member State level and those presented by the JRC. The Member States that detect such a discrepancy are strongly recommended to submit their data through EIONET in order to allow the update and improvement of the model. The list of EIONET contact points for SOIL is available at the following URL: http://eusoils.jrc.ec.europa.eu/library/data/eionet/PrimaryPoints.cfm* • *The indicator only covers soil erosion by water. However, it is among the objectives of DG JRC and DG ENV to develop a wind erosion indicator which could complete the information currently available.*			
43	**Production of renewable energy from agriculture and forestry**	- Production of renewable energy from agriculture - Production of renewable energy from forestry	kilotonnes (1000 tonnes of oil equivalent, kToe) and % of total production of renewable energy	• National	***For agriculture*** **EurObserv'ER barometer for data on biogas** **European Biodiesel Board for data on biodiesel** **ePure for data on bioethanol** • National data: data prepared by DG AGRI • Regional data is not available ***For forestry and total production*** **Eurostat – Energy statistics (Supply,**

					transformation, consumption) • National data: table nrg_1071a • Regional data is not available in Eurostat
		Notes for indicator 43: • *Link to the EurObserver barometer:* http://www.eurobserv-er.org/ • *Link to European Biodiesel Boa*rd: http://www.ebb-eu.org • *Link to ePURE:* http://www.epure.org • *Variables for table nrg_1071a: INDIC_NRG (Primary production), PRODUCT (Wood & Wood Waste, Renewable energies).*			

<table>
<tr><th colspan="6">Environment indicators (cont.)</th></tr>
<tr><th>No</th><th>Indicator</th><th>Definition / Calculation</th><th>Measurement</th><th>Data level</th><th>Data sources</th></tr>
<tr><td>44</td><td>Energy use in agriculture, forestry and food industry</td><td>- Direct use of energy in agriculture/forestry
- Direct use of energy in food processing</td><td>For both uses:
- total in kilotonnes (1000 tonnes of oil equivalent, kToe)
For agriculture:
- kg of oil equivalent per ha of UAA</td><td>• National</td><td>Eurostat – Energy statistics
• National data: table nrg_100a
• Regional data is not available in Eurostat</td></tr>
<tr><td colspan="5"><u>Notes for indicator 44</u>:
• Eurostat data from the joint IEA/OECD-Eurostat-UNECE questionnaires. Limitation of data and sources:
1. Though the energy statistics are of high quality in general, the data on energy consumption by agriculture are of lower quality due to errors and incomplete data.
2. The indicator only refers to direct use of energy by agriculture. Indirect energy used in agriculture for fertilisers, pesticides, animal feed and agricultural machinery, which are produced using large amounts of energy, is not included.
3. Data on energy consumption by agriculture from the questionnaires include the use of energy by forestry. Though data is separately required on fisheries since 2004, many data on agriculture/forestry, even after 2004, include (part of) energy consumption by fisheries. Energy consumption by agriculture may therefore be overestimated in countries with significant forestry or fisheries sectors.
4. Data on food processing are taken from the category "Food and tobacco" and therefore include the NACE category "Manufacture of food products, beverages and tobacco products". Data on food processing are overestimated.
• The indicator is taken from the Agri-environment indicator 8.
• Variables for table nrg_100a: B_101830 (Food and tobacco), B_102030 (Agriculture/Forestry), B_101700 (Final energy consumption).
• Total UAA extracted from Eurostat – Agriculture statistics, Table apro_cpp_luse.
• Only data at national level are available. Sources in the MSs can be explored for regional data.</td></tr>
</table>

Environment indicators *(cont.)*					
No	**Indicator**	**Definition / Calculation**	**Measurement**	**Data level**	**Data sources**
45	**Emissions from agriculture** [impact indicator 7]	**1. GHG emissions from agriculture** - Total net emissions from agriculture (including soils) - Share of agriculture (including soils) in total net emissions	Total net emissions: - 1000 tonnes of CO_2 equivalents Share: - % of total GHG emissions	• National	**European Environment Agency (EEA)** • National data: data prepared by DG AGRI (see Notes) • Regional data is not available
		2. Ammonia emissions from agriculture Total annual ammonia emissions from agriculture	1000 tonnes of NH_3	• National	**European Environment Agency (EEA)** • National data: data reported by MSs in the framework of the NEC Directive (2001/81/EC) • Regional data is not available
		Notes for indicator 45: • *EAA website: http://www.eea.europa.eu/* • ***GHG emissions from agriculture:*** o *"Total net emissions from agriculture (including soils)" include:* ▪ *Aggregated annual emissions of methane (CH_4) and nitrous oxide (N_2O) from agriculture (UNFCCC Sector 4),* ▪ *Aggregated annual emissions and removals of carbon dioxide (CO_2), and emissions of methane (CH_4) and nitrous oxide (N_2O) from agricultural soils (grassland and cropland) (UNFCCC Sectors 5.A.B and 5.A.C).* o *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 shows 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/dataand-maps/data/data-viewers/greenhouse-gases-viewer* o *CH_4 and N_2O emissions from agriculture are provided in table EU27_TrendTable_10.xls of Annex-2.8-crf-tables-agriculture_EU27.zip (compiled each year by the EEA) which includes standard reporting table (SRT) for sector 4 (agriculture).* o *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). Only categories 5.A.B (cropland) and 5.A.C (grassland) are included. These account for emissions of cropland/grassland remaining the same type of land use, and emissions from land converted to cropland/grassland.* • ***Ammonia emissions from agriculture:*** o *"Total annual ammonia (NH_3) emissions from agriculture" are the sum of NFR subsectors 4B1-9 [excl. 4B5] + 4B13 + 4D1a + 4D2a,b,c + 4F + 4G:* ▪ *Synthetic N-fertilizer (4D1a)* ▪ *Cattle dairy (4B1a)* ▪ *Cattle non-dairy (4B1b)* ▪ *Swine (4B8)*		

		▪ *Laying hens (4B9a)* ▪ *Broilers (4B9b)* ▪ *All other subsectors (4B2-7 [except 4B5]+ 4B9c,d + 4B13 + 4D2a,b,c + 4F + 4G)* o *Annual emission data on ammonia emissions from agriculture, broken down by Member State and sub-sector is provided through the web-based tool "Air pollutant emissions data viewer (NEC Directive)". It also shows overall ammonia emission trends over time, and allows for comparison between Member States. The link is: http://www.eea.europa.eu/data-and-maps/data/data-viewers/emissions-nec-directive-viewer* o *Data are collected on an annual basis and available in December Y+1.*