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**Background document**  
**Points 6.1, 6.2, 12, 13, 14 and 15 of the**  
**agenda**

**Minutes of the meetings of the task forces on environmental transfers and  
on the resource use and management account RUMEA, Stockholm, 18-20  
October 2011**

*Eurostat – Unit E2*

**Working Group Environmental Expenditure Statistics**

**Joint Eurostat/EFTA group**

**Meeting of 27 - 28 March 2012**  
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## **Minutes of the meetings of the task forces on environmental transfers and on the resource use and management account RUMEA, Stockholm, 18-20 October 2011**

The task forces on environmental transfers and on the resource use and management expenditure account (RUMEA) met in Stockholm on 18-20 October 2011. On 18 October, the task force (TF) on environmental transfers discussed environmental taxes and environmental subsidies and similar transfers. On 19 October, both TFs met to jointly discuss issues of common interest: first draft legal proposals for data collection modules for environmental protection expenditure (EPE) and for the environmental goods and services sector (EGSS), the measurement of climate change mitigation (CCM) expenditure and the issue of classifications of environmental activities. On 20 October, the TF on RUMEA discussed progress made and next steps on the resource use and management expenditure account.

The list of participants is attached as Annex 1.

### **1. Task force on environmental transfers (18 October 2011)**

Ms Inger Eklund, head of department at Statistics Sweden, welcomed the participants. Ms Eklund underlined the importance of environmental economic information for green growth and green economy initiatives. There was a high demand for data on environmental taxes, environmental subsidies and also harmful subsidies.

The meeting was co-chaired by Mr Anton Steurer from Eurostat and Ms Mayya Hristova from the European Commission's Directorate General for Taxation and Customs Union (DG TAXUD).

Mr Steurer informed the TF about the new Regulation 691/2011 on European environmental economic accounts which had been adopted by the European Parliament and Council in July 2011. The Regulation includes detailed modules on air emission accounts, material flow accounts and environmental taxes by economic activities. Member States will have to start transmitting data in September 2013. The work of the TF is highly relevant in preparing the implementation of the Regulation. The Regulation also refers in its Article 10 to new work modules that should be developed, including environmental subsidies, environmental protection expenditure and the environmental goods and service sector.

The new world-wide system of environmental and economic accounting (SEEA 2012) is currently being finalised. The SEEA includes text on all the issues discussed by the TF – environmental taxes and subsidies, environmental expenditure, the environmental goods and services sector, the classification of environmental activities. Near-final drafts will soon be available and a global consultation of all national statistical institutes will be launched at the end of October 2011. It is expected that the UN Statistical Commission will adopt the SEEA central framework as an international statistical standard at its next meeting (28 February – 2 March 2012).

The agenda was adopted with an additional item for day 2 on the draft proposed module on EGSS for future inclusion into Regulation 691/2011.

The minutes of the last TF meeting (October 2010 in Lisbon) were approved as proposed.

## **1.1 Environmental taxes**

### ***State of play (point 3.1 of the agenda)***

The TF first reviewed the state of play. Eurostat and DG TAXUD presented their activities. At present, revenue data are derived from the national tax lists Eurostat collects as part of the ESA95 transmission programme. DG TAXUD assigns an economic function to each tax and identifies the environmental taxes in consultation with Eurostat and with DG TAXUD's Working Group on the structures of the taxation system. The members of DG TAXUD's Working Group generally come from Ministries of Finance or Treasuries.

With the new Regulation 691/2011, DG TAXUD considers that gradually the lead for environmental taxes should move to the statistical offices. The data published by DG TAXUD and the environmental tax data collected by Eurostat should be made fully coherent.

The TF discussed the strengths and weaknesses of indicators such as environmental taxes in % of GDP and in % of total revenues from taxes and social contributions as well as implicit tax rates. All these indicators can be influenced by factors that are outside of the area of taxation policy so that interpretation needs care.

EU-wide, the share of environmental taxes in GDP has fallen in recent years, mainly due to a reduced importance of energy tax revenues. A significant contributor to this effect may have been the oil price which significantly increased over the last 10 years in real terms. The high prices may have contributed to a decoupling of the use of oil products from GDP while at the same time governments may have been reluctant to increase tax rates. In countries with high car sales taxes, an economic downturn can have a big impact on car sales and therefore on revenues from such taxes.

The TF underlined the need for careful analysis of the drivers behind changes in the tax bases. Information on key drivers should be provided to facilitate the interpretation of data on environmental taxes.

The results also showed that some further harmonisation of the data on resource taxes was appropriate. Of the 4 European countries with high tax revenues from oil and gas extraction (DK, NL, NO and UK), DK shows the highest share of resource taxes within the environmental taxes. This is mainly due to the inclusion of a special profit tax on oil and gas extraction. The UK and NO delegates confirmed that they exclude any such taxes. The TF concluded that all taxes related to oil and gas extraction should be excluded from the data for international comparison reasons. Countries could report these taxes as a memorandum item. (See also below the point on 'resource rent collected in the form of taxes'.)

### ***Environmental taxes: review of outstanding issues (point 3.2 of the agenda)***

The TF discussed a number of issues which can have an impact on the quality of environmental tax statistics and which are relevant for the update of the statistical guide on environmental taxes.

**Taxes versus fees.** The TF noted that environmental tax statistics include only those payments to government that are recognised and treated as taxes in the national accounts. The following aspects were highlighted:

- The legal definition of taxes can differ from the national accounts definition. For national purposes, the legal definition can be important for policy makers. For international comparisons, the national accounts definition should always be used.
- In the source data for national accounts, payments of fees or of rent on sub-soil assets may be called taxes. In the national accounts, however, fees are to be treated as payments for services and rent as a property income
- It can happen that some (usually small) tax included in the national accounts does not satisfy the national accounts definition of taxes and that some payments treated as fees should in fact be included as taxes. Any such potential cases should be discussed with the national accountants at national level.
- Some countries and OECD do also publish environmentally-related payments other than taxes.
- An issue with fees is that in many countries there are both private and public operators involved in e.g. waste collection or sewage treatment. A trend towards privatisation, for example, can introduce a bias in the figures on fees. For the interpretation of the data on fees paid to public units it is important to provide information also on payments to private companies or on the development of the market share of the public units.

**Definition of environmental taxes.** The definition comprises the *taxes whose tax bases are physical units (or proxies of physical units) of something that has a proven, specific negative impact on the environment*. The logic behind the definition is that the tax should affect relative prices by making these tax bases more expensive than other more environmentally friendly tax bases. In order to ensure international comparability, a list of tax bases has been developed. All taxes specifically levied on the tax bases included in this list should be considered environmental taxes.

In order to provide more guidance on newly introduced taxes whose tax base is not included in the list, the TF agreed that ‘*a proxy of a physical unit*’ should be interpreted as including not only on the quantity but also on the price of any tax base included in the list, as well as any tax specifically levied on inputs of the activities that produce this tax base. These inputs comprise intermediate inputs as well as assets needed for production. Profit taxes should be excluded due to their distant and uncertain effect on the volume or price of the tax base listed.

A recent example is newly introduced taxes in some countries on nuclear fuels or on nuclear power stations, or on the profit of nuclear power operators. Following the guidance, as electricity is included in the list of tax bases, also taxes on nuclear fuels and on nuclear power stations are environmental taxes. The profit taxes should be excluded.

**Resource rent collected in the form of taxes.** In many countries the government collects a part of the income from the extraction of oil and natural gas in the form of taxes. Typically this is done by a mix of taxes, e.g. some fixed taxes on the right to extract and some tax on excess profit (super profit taxes). In principle, such taxes should be classified as property income in the national accounts. However, this is not always done. The TF concluded that for international comparison purposes all taxes on oil and natural gas extraction should be excluded from environmental tax statistics. All other taxes on resource extraction (e.g. mining taxes) should be included.

**VAT.** In general VAT should be excluded from the scope of environmental taxes. Based on a suggestion by the London Group, the current draft of the SEEA proposes that the VAT which is levied on an environmental tax could be taken into account. The UK includes this type of VAT in their national environmental tax data. In principle, many environmental taxes could be subject to VAT, e.g. mineral oil taxes, taxes on vehicle sales or taxes on specific harmful products (batteries, pesticides, packaging materials etc.)

Only the part of this VAT on environmental taxes that cannot be deducted by the tax payer should be included. Since it would be difficult and labour intensive to estimate this VAT revenue and since the non-deductible part would be rather small compared to total revenue from environmental taxes, the TF concluded that for international comparison purposes this VAT should be excluded.

For national purposes, countries can include some special components of VAT, e.g. the VAT on environmental taxes described above or other special VAT. For example, in Austria and Spain a special high VAT rate was levied on car sales which had to be abolished in the early 1990s due to EU tax harmonisation. The special high VAT was replaced by environmental taxes. Including this special VAT revenue could improve the consistency of the time series.

**Who is the tax payer?** For efficiency reasons, governments may collect taxes from importers, wholesalers or retailers rather than from the final purchaser. The TF concluded that the tax payer should be the unit using the tax base and not the unit from which the government collects the tax. For example, the mineral oil tax should be allocated to the companies or households that purchase the mineral oil for use and not to the refinery or the retailer where the tax is collected by the government.

On the other hand, taxes levied on producers will often ultimately end up in the prices paid by consumers. The TF concluded that considerations of final tax incidence should not be pursued. For example, a tax on electricity networks should be allocated to the operators and should not be assigned to the ultimate users of the electricity on the basis of assumptions about the way the tax would be included in the price of electricity.

**Land taxes.** In many countries taxes on land are considered property taxes and the tax is levied on the value of the land or of the real estate. But in some cases there can be land taxes specifically levied on the square meters of soil sealed. Often land taxes are local taxes that generate relatively little revenue and where information on the specific tax base used by each local government would not be available. The TF concluded that land taxes should be excluded from environmental taxes for international comparisons. Where for national purposes a country considers a land tax as an environmental tax because it is levied on uses of land with a specific negative impact on the environment, it can be classified as a resource or pollution tax for national purposes.

**Congestion charges and city tolls.** Some cities have introduced charges for access to the city centre. In the United Kingdom, the London city charge is treated as a fee paid for a service. The Stockholm city charge is treated as a tax. Some Italian cities have also introduced city charges. The charges seem to differ considerably in their characteristics (e.g. no charge is levied on weekends or at night; the charge is only levied on tourist buses that want to enter the city etc.). The TF concluded that if a city charge is treated as a tax in national accounts, then it should be included as an environmental (transport) tax.

As the comparability across countries can be affected when city charges are treated as taxes in some countries and as fees in other countries, further guidance should be sought from the Eurostat government finance experts. Countries could report city charges treated as a fee as memorandum items.

**Precision of data collection – the issue of taxes generating small revenues.** In the source data (e.g. public budgets), small taxes may be grouped together. Such taxes may be levied on a variety of environmental and non-environmental tax bases. In principle, further information should be collected from the authorities or by studying the tax laws to be able to separate the environmental from the non-environmental tax revenues. In particular in federal countries it may happen that local or regional governments levy a large number of diverse environmental taxes that create small amounts of revenue. In principle all these taxes should be identified in the environmental tax statistics.

However, for efficiency reasons a cut-off limit could be used to ensure that all large taxes are captured and allocated correctly to the different categories of environmental taxes (e.g. all taxes that represent more than 0.1% of the environmental tax revenue). Taxes generating small amounts of revenue could be classified using a predominance criterion.

**Individual borderline cases included in document ENV/ERT/TF/03 (2011).** The TF reviewed all the individual cases listed in section 2.3 of the document. The DK taxes on oil pipeline and on hydrocarbon (cases 1 and 2) should be excluded from the scope of environmental taxes. For the Spanish taxes on electricity grids and telecommunication networks (case 3) the Spanish delegate promised to look for more information that would hopefully enable to split the electricity tax from the telecommunication tax. For the Dutch flight tax (case 4), the Belgian tax on the profit of nuclear operators (case 5) and the Norwegian tax on petroleum (case 6) the treatment proposed in the document was agreed.

The cases of differences between the national tax list and the data reported to Eurostat were also discussed (section 2.4 of document ENV/ERT/TF/03 (2011)). For Sweden, discussions are ongoing with the national accountants. For Italy, the largest difference (tax on motor vehicles) was due to a mistake in the Table 9. For the Austrian land tax, this tax should be excluded for international comparisons. For the Dutch water pollution and sewage charges, these are for international purposes included in environmental taxes.

**Treatment and identification of CO<sub>2</sub> taxes.** It was agreed to keep CO<sub>2</sub> taxes under the energy heading as the distinction between energy and CO<sub>2</sub> taxes remained arbitrary and the tax bases were the same. It was noted, however, that the newly proposed EU energy tax directive would (if adopted) introduce two tax rates per product, one based on the energy content and one based on the carbon content. This would improve the basis for separating CO<sub>2</sub> taxes from other taxes. Also the CO<sub>2</sub> permits would be an important source with clearly identified CO<sub>2</sub> taxes (payments to government for CO<sub>2</sub> permits would be treated as taxes in the national accounts – a final decision at international level is expected in February 2012).

The TF also discussed whether any taxes on measured CO<sub>2</sub> emissions should be recorded under the pollution rather than the energy category. The TF considered that the distinction between measured CO<sub>2</sub> emissions and emissions assessed on the basis of the carbon content of fuels was arbitrary. It remained unclear whether any taxes on measured CO<sub>2</sub> emissions existed at all, so this tax base would not be added to the list for the time being.

**List of tax bases.** A minor update of the list was agreed reflecting the issues discussed by the TF (see above). The TF considered a written proposal by Italy that the detailed list of energy products could be removed from the list of tax bases. The TF agreed that the list of tax bases was not a classification except for its four main categories. However for illustrative purposes the detailed list of energy products should be kept.

The revised list of tax bases is attached to these minutes as Annex 2.

***Methods for the allocation of environmental tax revenues to paying economic activities (point 3.3 of the agenda)***

Several countries (Norway, Sweden, Netherlands, United Kingdom, Italy) reported that their national accounts were detailed enough to fill in the Eurostat questionnaire at A\*64 level. In Sweden this applied to all energy taxes. Transport taxes had to be allocated by the environmental accountants using e.g. vehicle registration data.

Other countries (Germany, Austria, Spain) reported some limitations of the national accounts data so that extra work was needed using for example the energy and air emission accounts as a basis for distribution of energy taxes. In some cases, the national accountants had distributed the taxes on the basis of monetary data on the purchase of energy rather than the quantity of energy used. Transport taxes in Germany and Austria were allocated based on vehicle register data.

Slovenia currently uses administrative sources (customs office, environmental agency, tax office, national budget etc) so that the tax data are on a cash basis but plans to investigate how the national accounts could be used.

In Sweden, the national accounts model for allocating energy taxes to industries had originally been developed in a project with the environmental accountants using energy accounts data. The TF considered this a best practice for other countries.

France is currently doing a study on the methods for allocating the taxes. The first phase of work should be completed in April 2012 and should cover for one year a full list of environmental taxes and an analysis of the methods for breaking them down using (1) direct information at detailed activity level obtained from the government bodies collecting the taxes or (2) indirect methods such as using supply-use tables or air emission accounts. It is not yet clear whether the detail in the SUT would be sufficient.

**Eurostat questionnaire.** Countries confirmed that the 'of-which' position for CO<sub>2</sub> taxes under the energy taxes category in the Eurostat questionnaire should be kept.

The memorandum items had been introduced to capture discrepancies between the DG TAXUD environmental tax revenue totals as derived from the national tax lists and the detailed allocated environmental tax data. Countries could also report here taxes or fees that for national purposes were included but for international comparison purposes were excluded from environmental taxes. DG TAXUD would like to have more items (fees and charges, etc.) as memo items in order to increase the information gathered in the area of economic instruments for the environment.

### ***Environmental taxes: New statistical guide (point 3.4 of the agenda)***

The draft statistical guide will be updated based on the results obtained by the TF (see above). Furthermore the TF suggested clarifying the following:

- the links to the SEEA
- the interpretation of the data (and in particular how to link the purposes listed in the introduction with the uses of the data)
- the role of CEPA and CRUMA which perhaps receive too much importance.
- to put more focus on relative prices and to mention also subsidies and the polluter pays principles

### **1.2 Environmental subsidies and similar transfers**

Eurostat introduced briefly the issue of environmental subsidies and similar transfers (hereafter 'environmental subsidies' for short) which are high on the international agenda, inter alia due to interest in instruments for promoting green growth and sustainable development.

#### ***Results of the pilot exercises (point 4.1 of the agenda)***

Eurostat presented the results of the pilot exercise agreed upon by the TF in its meeting of October 2010. Document ENV/ERT/TF/05(2011), which describes these results, has been slightly modified in section 4 (page 12) upon request from Italy and a revised version will be uploaded on Circa. The updated text refers to the description of the Italian work done for the pilot exercise. The aim of the pilot exercise was to find out more about the information available in different countries, to collect experience with the compilation of data on environmental subsidies, and to learn how to cope with identification and classification problems. This pilot exercise was not meant to be an exhaustive data collection on environmental subsidies. The results of the pilot exercise are a collection of examples and methodologies as well as difficulties encountered by the test countries.

#### ***Issues for discussion (point 4.2 of the agenda)***

The TF discussed a number of issues which can have an impact on the quality of statistics on environmental subsidies.

**Environmental shares.** The TF confirmed that the main purpose should be applied to single transfers. A transfer where the main purpose is environmental should be fully included. In many cases the transfers that can be identified in the source data are specifically environmental. The information available in budget documents is often sufficient to identify the main purpose. However, sometimes an environmental subsidy is part of a bigger measure/programme which is not entirely environmental. In order to identify the environmental share of a programme often extra information is needed, for example direct contacts with the agency or department responsible for the implementation of the programme. Such extra research significantly increases the work load.

**Agricultural subsidies.** Sources for more insights on the (environmental share of) agricultural subsidies are the EU documents on EU common agricultural policy (CAP). Under

the CAP there is a common monitoring and evaluation framework that is relevant for environmental aspects. This is called 'Area under environmental commitments' (AEI) which includes a series of indicators such as number of farm holdings receiving support, total area under environmental support, agri-environmental payments, etc.

AT and the NL recalled the two pillars of the CAP (Pillar 1: market support measures and direct subsidies to EU producers and Pillar 2: rural development programmes) and suggested to include as environmental all subsidies falling under Pillar 2.

**Advantages and disadvantages of data sources.** The national accounts (ideally not only COFOG but the underlying national accounts database) should be used as a main source for the identification and data gathering on environmental subsidies. When this source does not provide sufficient detail countries should make a detailed budget analysis. Budget analysis represents a significant investment in terms of resources in particular the first time it is done. It is possible to standardise the process and integrate it into the work that is done regularly by the national accountants.

**Industry breakdown.** An industry breakdown (by receiver) of the environmental subsidies data is needed to analyse e.g. links to the level of emissions of certain industries, to emission permits or environmental taxes. However, for most countries, a NACE Rev. 2 - A\*64 breakdown is too detailed even for the subsidies (D3) which are already allocated by national accountants. In general, identifying the recipients from the available sources is very difficult. The Netherlands in a pilot project linked data at the level of individual beneficiaries with the business register in order to connect to NACE divisions.

The TF concluded that a more aggregated NACE breakdown should be proposed for a data collection on environmental subsidies. This breakdown should not exceed 10 categories. For national purposes countries can go beyond this limitation.

**Classification by CEPA/CRUMA.** The pilot exercise asked for the classification of environmental subsidies by environmental domains using either CEPA/CRUMA or environmental tax categories (energy, resources, pollution, and transport). The use of these classifications allows for better analysis (polluter pays principle) and for synergies across environmental accounts (e.g. links to environmental expenditure). Using the environmental taxes categories or CEPA does not seem to pose particular problems. However, it was noted that when COFOG is used as a source, the allocation to some CEPA classes requires specific work. Some transfers (e.g. to agriculture or for energy saving) may need to be split into different CEPA categories. The usefulness of a classification by CRUMA was not clear to some countries (Norway, United Kingdom and Sweden).

**Transfers in kind and other types of transfers (tax credits, joint implementation and clean development mechanism).** The TF agreed on the inclusion of transfers in kind in the scope of environmental subsidies and similar transfers. The nature of items related to joint implementation and clean development mechanisms under the Kyoto protocol was not entirely clear. In government budget documents such items would look like transfers but they could be purchases of emission rights. For tax credits data on the lost receipts is available in several countries - FR, NL and AT mentioned that government reports on the tax credits exist in their countries. Tax credits and similar off-budget support is a main tool used partly replacing direct subsidies for supporting environmental behaviour in some countries (e.g. in France or in the Netherlands). However, the TF members had doubts about the methodologies used to estimate this lost revenue and about the comparability of the data across countries. In

general, it is very difficult to distribute the lost revenue across industries. However, in France the tax credits are allocated to special purposes and generally concern a specific industry which facilitates allocation. In the national accounts, off-budget support is not recorded as these are not transactions in the national accounts. Thus in order to keep comparability of data among countries at the maximum level, tax credits should be reported as memo items by countries willing to do so.

### *Environmentally harmful subsidies*

Environmentally harmful subsidies are high on the political agenda (Rio +20, Resource-efficient Europe, green growth, etc.)

Sweden presented their development work on potentially harmful subsidies and similar transfers. Potentially environmentally damaging subsidies (PEDS) are defined by Sweden as subsidies that potentially lead to increased emissions or an increased outtake of natural resources, and are not paid out with an environmental motive. PEDS are primarily paid to emission intensive sectors and to activities that lead to an increased use of products included in the environmental tax base list. The main PEDS identified in Sweden are related to transport in rural areas and to agriculture.

The Netherlands proposed to try to get rid of the 'Potential' part of PEDS and aim to get figures on actual environmentally damaging subsidies (EDs). One way this could be done is to rely on agreement among experts on harmfulness of subsidies. The Netherlands will include a thematic chapter on environmentally related subsidies/transfers and pay attention to damaging subsidies (including tax exemptions) as well, in their next environmental accounts publication (to be published 17 Nov 2011). The identification of environmentally damaging subsidies in the Dutch publication is based on the judgement of a panel of experts.

Austria and Germany reported about private organisations publishing analyses on harmful subsidies (e.g. Greenpeace in Germany). However, the methodologies used are not always clear. Austria in its work included for agriculture only those transfers that increase agricultural production. As regards transport, subsidies to water transport and to buses were excluded but infrastructure subsidies were included in scope.

The TF identified several problems related to the identification of (potentially) environmentally damaging subsidies. It could be difficult to agree on the definition of harmful subsidies. The basis for identifying harmful subsidies is the effect. The underlying assumption was that removing the subsidy could have positive environmental effects. Some environmentally motivated subsidies could in fact be harmful (e.g. bio fuel subsidies). It was not easy to estimate the effect of removing a subsidy. Dislocation to other countries of 'harmful' activities such as agriculture could have negative net effects at a global level. It would be useful to look at emission intensities of different activities not just within countries but also across countries. It was important to take into account other instruments as a "harmful" subsidy could be balanced by another measure to protect the environment and policy makers would look at the overall package. E.g. if a subsidy on fossil energy production is combined with a quota on CO2 emissions it is possible that no harmful effects result from the two policy instruments together. To progress and overcome problems of definition Germany proposed to focus on a list of sectors/products similar to the one made for environmental taxes. For example, individual transport could be included in such a list.

The TF agreed on the inclusion of text regarding (P)EDs in the manual on environmental subsidies, recalling the huge policy demand for data on environmental damaging subsidies but also the major doubts on the usability of such statistics. Possible way forward could be described as well. No data collection is envisaged in the near future.

***Revised draft of the statistical guide on environmental subsidies and similar transfers (point 5 of the agenda)***

As so many issues had been discussed by the TF, a more complete and updated version of the manual would now be produced and would be sent to the TF members for comments.

**Possible future inclusion of environmental subsidies in Regulation 691/2011.** Eurostat proposed developing a questionnaire for a regular voluntary data collection of environmentally motivated subsidies. The questionnaire should be discussed at the March 2012 meeting of the Working Group on Environmental expenditure statistics. This would be a first step towards the possible future inclusion of environmental subsidies in Regulation 691/2011. The Netherlands raised the issue of the coverage of the data collection (only central government would be recommended). This would be easier to implement but for some countries regional and local governments are very important in terms of environmental transfers and thus sticking only to central governments would hinder international comparability. A solution could be to focus first on the most important level of government.

**2. Task forces on environmental transfers and RUMEA (19 October 2011)**

On 19 October the TFs on environmental transfers and RUMEA joined to discuss issues of common interest: a proposal for an environmental protection expenditure module and a proposal for an Environmental Goods and Services Sector (EGSS) module for inclusion in Regulation 691/2011, climate change mitigation expenditure and the Classification of Environmental Activities (CEA).

***Environmental protection expenditure module for inclusion in Regulation 691/2011 (point 2 of the agenda)***

Eurostat introduced the discussion on this issue recalling the background for this simplified proposal. An EPE module was proposed for inclusion in the Regulation already in 2009 but had been rejected mainly due to the estimated high cost of the module and the insufficient resources of the National Statistical Institutes. Eurostat recalled that there is a commitment agreed by the DIMESA in June 2011 to propose three new modules of environmental accounts: EGSS, energy accounts and EPE.

Guiding principles adapted when drafting the new simplified EPE module were to focus on production and only to some extent to the financing of EPE, to focus on available sources of data, avoiding the need for new data collection (and thus relying on more analysis/estimations using already available data).

Countries commented on the proposal without going much into detail as few had had the time to collect comments. Eurostat proposed to collect written comments with a deadline set to 7 November. The current draft module would be revised based on the comments of TF. Then the revised module would first go to a written consultation to the Working Groups on environmental expenditure statistics and environmental accounts, then would be discussed at the meeting of the Working Groups in March 2012 and then seek approval of the DIMESA

before going through the European Statistical System Committee by the end of 2012. The same procedure/timing would apply to the EGSS module.

**Comments made by countries.** Norway was worried by the workload as the 3 already existing modules demand already a lot of work and the EPE module seems still complicated. 2010 as the first reference year was too early. Sweden stated that the module is far too ambitious and proposed not to go beyond the current data collection based on the JQ, also because the use of EPE data as collected by the proposed module is not clear. Italy stressed the importance of ensuring coherence with the national accounts since the legal basis makes an explicit reference to environmental accounts as satellite accounts of the ESA. A further reduced proposal would imply to simply produce statistics that should be covered by legal acts other than a Regulation on environmental accounts. Austria welcomed the simplification and pointed out that the proposed table could be easily completed by re-arranging existing data. Spain agreed with Sweden that the JQ would be a good starting point. No new surveys should be needed. Slovenia highlighted that the proposal is still rather complex. The Netherlands was not against the proposed module and stressed that transfers to the rest of the world should be included as they are very large. Finland was in favour of using only existing sources. France also would prefer to stick to the JQ although it would be very interesting to have comparability with NA aggregates. Austria pointed out that due to the time needed to have access to the latest available SBS data, the time frame for EPE data collection should be changed from “within 21” to “within 24 months from the end of reference year”. Italy proposed having also full time equivalent jobs among the variables to be collected because of the importance for green economy analysis and pointed out that the inclusion of implicit subsidies would be relevant for some environmental domains.

Norway pointed out that an EPE module focused on the supply side as it is in the current proposal would imply to some extent also to compile EGSS data. Also the links to a possible future module on environmental subsidies and other transfers should be kept in mind. Eurostat recalled that the aim is to have different modules well connected so as to be able to use the data from one module to build the others.

Eurostat concluded that the TF was clearly in favour of using only existing sources. The TF members would send written comments by 7 November 2011. In the next version, the uses that can be made of the data would be presented more clearly. The delay for data submission would be extended to 24 months. Transfers to the rest of the world should be included. There is not much space for further simplification of the EPE module if one wants to stay within the framework of satellite environmental account.

#### ***EGSS module for inclusion in Regulation 691/2011 (point added to the agenda)***

Eurostat presented the proposal for a module on EGSS to be added to Regulation 691/2011. As many countries had not had time to go through the document in detail it was decided to proceed as for the EPE module: the TF members would send written comments to Eurostat by 7 November.

**Comments by countries.** Austria was happy with the inclusion of this module in the Regulation, would keep the distinction of environmental technologies (but would accept a change in the name) and would have no problems delivering data 12 months after the end of the reference period and starting with reference year 2008. Sweden pointed out that the proposal is too detailed and suggested skipping some breakdowns (perhaps the breakdown into ancillary, market and non-market and the breakdown into connected, adapted products

etc.) and wondered how to ensure comparability of resulting data among countries. For the United Kingdom the proposal is too ambitious, the breakdown into ancillary, non-market etc. should be dropped. Germany and the Netherlands would skip as well the detail “ancillary and non market”. Germany cannot report on adapted products. Norway and the Netherlands suggested skipping the last table. Norway suggested clarifying the sentence about intermediate and final consumption in section 1 and putting as first reference year not 2010 as those countries that still have to set up a system would not be able to cover early years. Italy will use EPEA as a main data source for EGSS. Netherlands suggested that the market versus non-market split should be skipped except for environmental services.

### ***Climate change mitigation expenditure (point 3 of the agenda)***

Eurostat presented the issue and the policy demand and reminded the TF that the Working Groups on Environmental accounts and on Environmental protection expenditure in March 2010 had referred the issue for exploration to the TFs.

The discussion showed that few countries have already undertaken some work linked to the issue. There is demand from policymakers only in a few countries so the issue is not a priority for countries at the moment. In relation to document ENV/ERT-RUMEA/TF/03(2011) countries pointed out that CEPA 2 and 3 were not really relevant in this context. Norway has some policy demand and informed the group about a UNECE initiative on climate change related statistics.<sup>1</sup> Canada reported about demand in relation to the low carbon economy where data on the supply and demand of carbon reducing technologies is collected. There are problems both for businesses to identify such technologies and conceptually in relation to the treatment of nuclear energy and large hydro power plants. Sweden has a project (CREEA) which covers the issue.

The TF considered that the existing work areas could make a contribution to the issue of climate change mitigation expenditure. Work should first and foremost be done in the context of reviewing relevant classifications (see next point).

### ***Classifications of activities and expenditure (CEPA, CEA, Crema, CRUMA) (point 4 of the agenda)***

Eurostat introduced the issue recalling the development of the CRUMA classification and the development of the CEA and raised a number of questions, in particular:

- The role of resource use and the current development in the new SEEA to exclude resource use.
- The limitation of CRUMA and CEA to non-produced assets (e.g. only natural forest management).
- The main purpose (and not the effect) as main classification principle for resource management, in particular with a view to energy saving measures and renewable energy.

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<sup>1</sup> At the 2-3 November 2011 meeting of the Bureau of the Conference of European Statisticians, UNECE tabled the terms of reference for a Task Force on climate change related statistics, see [this link](#). The terms of reference focus on issues related to air emissions and greenhouse gas inventories but also mention classifications.

- The differences between Crema (used for EGSS), CRUMA and CEA which concern in particular a number of topics related to climate change

The TFs in discussion pointed out that a classification should be determined by its use. For climate change issues, for example, classification based on effect might be more helpful than based on main purpose.

The TFs discussed the need for classifications that combine resource management and environmental protection (such as the CEA). An advantage of combined classifications is that they help avoid double counting and help organise available information in a single step.

The TFs welcomed the clear separation of resource management and resource use.

The TFs noted that while many areas of the classifications are clear, specific problem areas were the inclusion only of non-produced assets (forests, aquaculture) as well as the need to split between environmental protection and resource management for energy saving, renewable energy and recycling.

Regarding the inclusion of only non-produced assets, the TFs reviewed the pros and cons. Conceptual purity can be off-set by measurement difficulties here. In Europe, the distinction between natural and cultivated forests would be very difficult to implement. The TFs concluded that the best solution would be pragmatic, ensuring both relevance of data and efficiency of compilation of the accounts: forest management should be fully included whereas issues related to livestock should be fully excluded.

The genesis of the classifications (the CRUMA, the Crema and then the CEA) was briefly recalled as well as the main principles of functional classifications in general and the way they are applied to the CEPA and CRUMA. A particular feature is that the Crema (which is used for EGSS, i.e. for the 'supply side') puts energy saving, renewable energy and recycling into a single category whereas the CRUMA/CEA split these activities by main purpose to either environmental protection or resource management.

On the main purpose principle for resource management (protection of natural resource stocks against depletion), the TFs noted the need to look at national versus global effects, e.g. many countries do not have any sub-soil assets of oil and gas to protect, saving of electricity in a country that has lots of hydropower plants. There was also a need to analyse the main purpose. E.g. for renewable energy protecting the stock of fossil energy is most likely not the main purpose. Rather, main motives relate to climate change (environmental protection) and job creation. For the producers of renewable energy the main motivation will be the production of energy for business purposes.

The TFs decided to create a sub-group which should review the classifications and deal with the issues raised. A clear framework for the classifications should be built analysing the uses of the classifications in the different modules foreseen for possible future inclusion in Regulation 691/2011. Ideally, an integrated set of classifications would cover environmental protection and resource management expenditure as well as the EGSS and possibly subsidies. In addition this set would serve important uses such as climate change policies.

For efficiency reasons, it should be made possible to code data only once for use in all modules. The number of differences between the 'supply side (EGSS)' and the 'demand side (expenditure)' should be kept to a minimum to allow direct use of data from one area as a

source in another area. The boundary cases identified above should be solved. The subgroup should also revise explanatory notes and add more examples to help provide guidance to compilers. Italy, Sweden, France and Austria were interested in participating in the subgroup.

The subgroup would perhaps have to meet in February 2012 to provide inputs for the meetings of the Working Groups on Environmental accounts and on Environmental expenditure (planned for 26-28 March 2012) and the meeting of the DIMESA (planned for 23-24 April 2012).

### **3. Task Force on RUMEA (20 October 2011)**

The aim of this meeting of the TF on RUMEA was to discuss progress made and next steps on the resource use and management account.

The agenda of the meeting and the minutes of the last TF meeting (October 2010 in Lisbon) were approved as proposed.

#### ***Presentation of the results of the second homework (point 3 of the agenda)***

ICEDD presented a summary of the results of the second RUMEA pilot exercise. The scope chosen by TF members covered energy, minerals and water. The focus had been on government and corporations. Ancillary activities were usually not covered. The accounting system had been based on the SERIEE system.

A roundtable allowed focusing on the main difficulties encountered by countries. Sweden had focused on renewable energy. An important source for the pilot exercise was the EGSS. However, own-account activities were not currently covered in the EGSS source. Sweden raised the issue of the relevance of the CRUMA as a whole and the link to policy uses. Only 4% of the forests are natural in Sweden and most of the interest in forests conservation is for biodiversity reasons, wild flora and fauna is not relevant for Sweden, land use is missing from the scope of the CRUMA, renewable energy should be in CEPA according to Sweden. Sweden would prefer to focus on physical natural resource accounts.

The TF concluded that the issues Sweden raised in relation to the CRUMA should be addressed by the new subgroup on classifications. One of the aims of this subgroup will be to clarify the way CEPA and CRUMA are to be used for EPEA and RUMEA and the relationship with classifications for EGSS purposes. The TFs will be informed about major issues and progress.

Finland had also chosen renewable energy due to data availability in this area. The main sources were national accounts, SBS and energy statistics. To estimate the own account production of renewable energy, the data from energy statistics were converted to economic data. Use of wood by households was not covered.

Both in Norway and the Netherlands the interest in natural resources monetary accounts is growing. In the Netherlands there is a plan to include water saving, energy savings and renewable energy production related questions in the business survey. Norway includes questions related to energy saving in the part on environmental expenditure in the business survey. This improves at the same time the quality of the EPE data.

The TF pointed out that in spite of the positive signals in Norway and the Netherlands then sources for estimating ancillary (also called 'in-house' and – in the new SEEA 2012 – 'own

account') activities are currently very limited. The importance of such production is likely to increase further, especially the own production of energy (solar panels on houses, decentralised systems for producing electricity, biogas production, etc.).

The Netherlands, in order to get renewable energy sector data uses energy statistics and business register data. Subsidy data at the level of individual companies were also used. An ongoing Eurostat grant (Compilation of EPEA and RUMEA tables for the Netherlands) helped to link environmental expenditure and resource management. Data sources also included the national accounts, production statistics, EPE and EGSS.

Slovenia pointed out that they managed to fill in CRUMA 10 (water) because they had already developed EPEA for CEPA 2 (wastewater management). In Slovenia, waste water management services and water supply are jointly provided by the same companies, so that the identification of the expenditures related to CEPA 2 implies the identification of expenditures for water resource use and management as well. Other sources used included the national accounts (supply use tables) and budget analysis.

France has already developed accounts for water (focus on drinking water) and recycling (metals, wood, paper, glass, plastics, textiles) but they do not directly fit to the CRUMA classification. The accounts are based on a mix of sources. Physical data play an important role as a data source for accounting.

Canada has data on water management and metal recycling. The data production is policy driven and not directly linked to CREMA. There is experience in input output modelling for tracing the use of recycled materials in the economy. The links between the economic data and the physical accounts should be exploited better.

Italy presented its work on water (CRUMA 10) and detailed all the sources of data (mainly COFOG and budget analysis) and estimations needed to fill in the tables. Estimation was in particular needed for the breakdown between RU and RM activities and expenditures. The RUMEA for water is produced together with the EPEA for waste and waste water. For splitting RM and RU, sets of rules have been developed. Administrative activities and all non-market activities are allocated to RM, market activities are split between RM and RU using coefficients. One basis for the coefficients is the purpose of relevant government transfers. The presentation of Italy is available on Circa.

Eurostat pointed out that the distinction between resource use and management is not always clear-cut. The most prominent example seems to be water resource management activities and the supply and distribution of water (e.g. activities to reduce or prevent water losses in distribution). In the case of water the policy questions tend to concern both RU and RM so where it is difficult to split RM and RU an option could be to keep the two together.

#### ***Issues for discussion (point 4 of the agenda)***

ICEDD presented the issues for discussion which came from the analysis of the pilot exercises. Data sources that had been used included national accounts, business statistics, budget analysis, energy statistics, waste statistics, forestry statistics and environmental statistics and accounts (EPE, EGSS, subsidies). The awareness of the accounting tables had been raised through the pilot exercises. Countries were encouraged to make full use of the advantages of accounting (e.g. when two data sources do not match, the accountant should not hesitate to create a single data set based on accounting identities and based on judgements

about the merits of the two sources). The set of accounting tables should be further developed into a working tool where standard assumptions are built in (e.g. that by default the non-RUM output is zero).

The TF concluded that an integrated system of source data and accounts was a key to developing the RUMEA. Ideally, the data bases underlying the national accounts data should be used. The multiple use of source data for different accounts and the use of one account as a source for another was essential for coherent good quality results at low costs. Where possible, the national accounts compilation process should be influenced such that data for various environmental accounts become available in the required detail 'automatically'. The integration of physical and monetary accounts and the integration of different monetary accounts (EPE, RUMEA, EGSS, subsidies) should be further pursued.

#### *Next steps for RUMEA (point 5 of the agenda)*

ICEDD presented the next steps that should be done in the field of RUMEA and also a detailed timetable.

The TF agreed that the focus should be on resource management. As the interest in the different natural resources varies across countries, the TF recommended to focus on 4 natural resource domains (CRUMA classes) for which accounts should be developed with priority:

- Energy (renewable energy, energy saving)
- Minerals (recycling and recovery)
- Water (including supply and distribution, i.e. the use)
- Forests (both natural and cultivated)

For a possible future regular data collection, the set of tables should be restricted to tables B and B1 (i.e. production and supply-use), with automatic filling of tables A and C. While there are encouraging signs that a few countries start measuring own account activities, data for these activities are not available in most countries. Therefore, data collection should initially be limited to specialist producers (this would in particular tend to exclude saving activities).

The TF suggested that the manual should include examples and practical guidance. With regard to the proposed table of contents, Austria suggested moving section 1.1 (indicators derivable from the data structure and accounts and other uses) to chapter 6 (presentation and interpretation of data). It was agreed that section 1.1 should just introduce the use of the accounts.

Countries pointed out the need of more grants for gaining more experience in the field and asked for an improved (with more comments and description of linkages between tables) version of the excel file containing the tables. ICEDD proposed to keep one version of A and C tables filled in automatically with data from tables B and B1 and to add a version of A and C tables to be filled in only if the assumptions underlying the automatic A and C table were not fulfilled.

The TF decided to launch a third pilot exercise, this time on a common natural resource domain and characteristic activity (renewable energy and energy saving). Other countries interested in the subject should be asked to join the exercise (to be done via the Working

Group meeting in March 2012). The tables and the guidelines for filling in the table should be revised. The results from the third pilot exercise should be available by mid July 2012. The TF underlined the need to carefully analyse the comparability of the results of the third exercise before the next meeting of the TF. Also the linkages to the EGSS should be analysed before the next TF.

## **Annex 1: List of participants**

**Chair:** Mr STEURER Anton (Eurostat) and Ms HRISTOVA Mayya Anatolieva (DG Taxation and Customs Union)

**Member States:** Ms PIRADASHVILI Irina (DE); Mr MARTIN Luis (ES); Mr BALMAND Samuel and Mr NAUROY Frédéric (FR); Ms ARDI Carolina (IT); Mr GRAVELAND Cor (NL); Mr BAUD Sacha (AT); Ms POGRAJC Metka and Mr MLAKAR Matej (SI); Ms SALOMAA Eila (FI); Ms BRONLINSON Hanna, Ms CEDERLUND Maja, Ms PALM Viveka and Mr CONSTANTINO Sebastian (SE); Mr JONES Matt (UK)

**EFTA countries:** Mr Håkon Torfinn KARLSEN (NO)

**Canada:** Mr FRITZSCHE Jeffrey

**International organisations:** Mr BRAATHEN Nils-Axel (OECD); Mr SPECK Stefan (EEA)

**Contractors:** Mr FALCITELLI Federico, Ms MARTIN Céline and Mr ORSINI Marco (ICEDD)

**European Commission:** Ms GEORGESCU Marina-Anda and Ms STAMATOVA Stela (Eurostat).

## **Annex 2: List of environmental tax bases (updated based on the discussion at the TF meeting on 18 October 2011)**

### **Energy products (including fuel for transport)**

- Energy products for transport purposes
  - Unleaded petrol
  - Leaded petrol
  - Diesel
  - Other energy products for transport purposes (e.g. LPG or natural gas)
- Energy products for stationary purposes
  - Light fuel oil
  - Heavy fuel oil
  - Natural gas
  - Coal
  - Coke
  - Biofuels
  - Electricity consumption and production
  - District heat consumption and production
  - Other energy products for stationary use

### **Transport (excluding fuel for transport)**

- Motor vehicles import or sale (one off taxes)
- Registration or use of motor vehicles, recurrent (e.g. yearly taxes)
- Road use (e.g. motorway taxes)
- Congestion charges and city tolls (if taxes in national accounts)
- Other means of transport (ships, airplanes etc.)
- Flights and flight tickets

### **Pollution**

- Measured or estimated emissions to air
  - Measured or estimated NO<sub>x</sub> emissions
  - SO<sub>2</sub> content of fossil fuels
  - Measured or estimated Sulphur emissions
  - Other measured or estimated emissions to air
- Ozone depleting substances (e.g. CFCs or halons)
- Measured or estimated effluents to water
  - Measured or estimated effluents of oxydisable matter (BOD, COD)
  - Other measured or estimated effluents to water
  - Effluent collection and treatment, fixed annual taxes
- Non-point sources of water pollution
  - Pesticides (based on e.g. chemical content, price or volume)
  - Artificial fertilisers (based on e.g. phosphorus or nitrogen content or price)
  - Manure
- Waste management
  - Collection, treatment or disposal
  - Individual products (e.g. packaging, beverage containers, batteries, tyres)
- Noise (e.g. aircraft take-off and landings)

### **Resources**

- Water abstraction
- Harvesting of biological resources (e.g. timber, hunted and fished species)
- Extraction of raw materials (e.g. minerals, but excluding oil and gas)
- Landscape changes and cutting of trees