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Point 5 of Agenda

**Final report of the Sustainable Development Indicators
Task-Force**

First meeting of the
Working Group on Sustainable Development Indicators
Meeting of 5-6 April 2006
Luxembourg, BECH Building Quetelet Room

57TH MEETING OF THE STATISTICAL PROGRAMME COMMITTEE

LUXEMBOURG

29 AND 30 NOVEMBER 2005

Item 20 of the Agenda

*Final report of the Sustainable Development Indicators Task-Force
Theme 70*

EXECUTIVE SUMMARY

RECOMMENDED ACTIONS

The Statistical Programme Committee (SPC) is invited to:

- Endorse the framework for Sustainable Development Indicators (SDIs) and the list of SDIs,
- Recommend to the national statistical institutions to maintain and expand their work on data needed for SDIs,
- Recommend to other data producers inside the EU institutions and agencies to maintain and expand their work on data production as well as compatibility of administrative and statistical data sources in order to contribute to the compilation of SDIs and,
- Support actively the Working Group on Sustainable Development Indicators, in order to follow-up and update the framework and SDIs, to improve inter-linkages between various indicators as well as to exchange experiences on best practice with SDIs.

BACKGROUND AND BRIEF HISTORY OF THE PROPOSAL

In September 2001, the SPC established a Task Force to develop a common response from the European Statistical System to the need for indicators on Sustainable Development (SD).

The present document constitutes the final report of the Task Force (TF). An interim report¹ was presented to the SPC in November 2003. The SPC expressed its satisfaction with the results achieved and gave strong support to the continuation of the work.

The TF has met nine times between April 2002 and April 2005. Because of the wide-spread interest in this work, the initial volunteer group of Finland, France, Germany, Italy, the Netherlands, Sweden, the United Kingdom, Norway and the Czech Republic, quickly expanded to include Austria, Belgium, Denmark, Estonia, Luxembourg, Spain and Switzerland. Eurostat provided the secretariat.

BRIEF ACTUAL STATEMENT OF THE POLICY CONTEXT FOR THE PROPOSAL

The Treaty establishing the European Union lays down in its Article 2 sustainable development as a core objective of the Union. In June 2001, the European Council adopted in Gothenburg the EU Strategy for Sustainable Development² and later on in 2002 the Barcelona Council adopted the Commission Communication on the external dimension³, building the EU approach to sustainable development.

¹ CPS 2003/51/10: “Interim report of the Task Force on Sustainable Development Indicators”.

² Commission Communication COM (2001) 264 final of 15.05.2001: “A sustainable Europe for a Better World: A European Union Strategy for Sustainable Development”.

³ Commission Communication COM (2002) 82 final of 13.02.2002: “Towards a global partnership for sustainable development”.

The 2002 World Summit on Sustainable Development (WSSD) reviewed global priorities for SD and increased further the demand for SDIs. The additional EU commitments arising from the plan of implementation of the WSSD as well as some other European Council recommendations were integrated by the TF into the framework.

In February 2005, the Commission expressed its views⁴ on the review of the SD Strategy. At its meeting of March 2005, the Council made an explicit reference to the need for indicators to monitor progress towards SD. The Council adopted in June 2005 a declaration on guiding principles for sustainable development, which should serve as a basis for reviewing the SD Strategy.

Eurostat drafted a Communication on SDIs⁵ – based on the preparatory works of the Task Force – which was adopted by the Commission in February 2005. The purpose of this Communication was both to introduce the conceptual framework and the set of SDIs, and to demonstrate the support of the Commission to this work. The communication proposes a list of 155 indicators classified in 3 levels according to the objectives and measures to be monitored (12 level-1 or headline indicators, 45 level-2 indicators and 98 level-3 indicators). 121 of these indicators are already disseminated on the Eurostat website (<http://europa.eu.int/comm/eurostat/sustainabledevelopment>). This communication also introduces the need for Commission services to work in close cooperation with the European Statistical System in order to investigate the feasibility of the indicators which are needed but not yet available.

CONSEQUENCES OF THE PROPOSAL FOR NSIS AND EU INSTITUTIONS

Most indicators retained by the TF come from regular data collection within the European Statistical System - only 22 out of 121 were not yet available in Eurostat databases. The TF has also identified needs in several areas, where some aspects are not appropriately or not at all covered in current data production systems. These data development needs concern 3 of the 12 headline indicators and 46 out of the other 143 indicators, as well as the lack of forecasted data when the SD analysis requires projections into the future of various variables. The TF also calls for more use of accounting frameworks (environmental and social matrixes) and the full implementation of the European strategy for environmental accounts⁶

The TF recommendations focus on strengthening the data behind the available indicators but also on new data developments mainly in the social and environmental domains. The situation is especially critical in the fields of food safety and quality, chemicals, health and environment, corporate responsibility, biodiversity, marine ecosystems, land use and good governance where several priority policy areas cannot be properly addressed due to the lack of appropriate basic information.

During the TF work, it became increasingly evident that administrative data production through specific surveys and compliance reporting also contribute to the compilation of data needed for SDIs. Similarly research and the private sector could make an important contribution on some specific issues. Therefore the TF has included recommendations for a better integration of information systems from statistical, administrative or research source.

⁴ Commission Communication COM(2005) 37 final of 09.02.2005: “The review of the EU Sustainable Development Strategy: Initial Stocktaking and Future Orientations”

⁵ Commission Communication SEC 52005) 61 final of 09.02.2005: “Sustainable Development Indicators to monitor the implementation of the EU Sustainable Development Strategy”.

⁶ CPS 2003/51/7: Report on the work of the Task Force on the development of a European Strategy for the development of Environmental Accounting (ESEA).

In order to develop the necessary methodology and/or data, Eurostat intends to work in the form of pilot projects (grants or contracts) in collaboration with Member States via the Working Group on Sustainable Development Indicators.

OUTSTANDING PROBLEMS

The compilation of the SDIs forms a challenging task for national statistical institutions and other administrations as well as for Eurostat.

This is due firstly to the demand for new data or for a new approach to existing data on a large variety of issues. The integration of economic, social and environmental dimensions calls for new combinations of statistical variables that emphasize the need for integrated tools such as the national accounts framework and a good compatibility of classifications.

Secondly, the demands for new data highlight needs for the development of models and scenarii that would facilitate projections with various policy options for the assessment.

The framework and associated SDIs has been developed to encompass the follow-up needs of the current EU SDS. However, the review of the SDS could highlight other domains for SDIs that will need to be incorporated in the current system. The creation of the Working Group on Sustainable Development Indicators is expected to answer this particular need.

For the future implementation of the framework and the system of indicators, the SPC has an essential role to play in the coordination of the highly diverse data producers and users.

RISK ASSESSMENT

There is an increased demand for statistics and assessments of the “quality of life” in a SD perspective. SD statistics and indicators are essential both at European and worldwide levels as the EU intends to play a leading role in global SD. There is also an emerging need for SDIs at regional level with for instance the inclusion of SD principles and indicators in the allocation of cohesion funds.

Failure to provide EU-wide SDIs would have serious consequences for the credibility of the statistical system to respond to one of its core tasks, namely the delivery of the information necessary for policy-making. Furthermore, it would lead to non-integrated and non-coordinated data production efforts that will not fulfil quality standards. The benefits of a strong statistical input would, on the other hand, lead to user satisfaction, better efficiency and long-term investments in expertise and system development.

NEXT STEPS

If the SPC endorses the framework and the list of SDIs, the practical steps to be taken to ensure progress in several areas should be considered according to given priorities. The Working Group on Sustainable Development Indicators will coordinate the answer from the European Statistical System to SD needs, and its work will be integrated with other thematic working groups. Eurostat will liaise with the research community in order to address the current shortcomings, and will further improve the SDIs published on its website. The SPC will be informed regularly about progress achieved in this field.

FINAL REPORT OF THE ESS TASK-FORCE ON SUSTAINABLE DEVELOPMENT INDICATORS

1. THE SDI TASK FORCE

In September 2001 the Statistical Programme Committee (SPC) agreed on the mandate of the Task Force (TF) for Sustainable Development Indicators (SDIs) and the first meeting took place in April 2002. Participants came from statistical services and other national administrations⁷, from Commission General-Directorates⁸ and from the European Environment Agency. Eurostat provided the secretariat.

The mandate of the Task Force was to:

1. Play an active role in identifying indicators for Sustainable Development, so that statistical issues are considered and so that the necessary statistics are compiled, using experiences from Member States in order to agree on a common approach at EU level;
2. Analyse/develop a suitable framework for statistical work on Sustainable Development Indicators;
3. Act as a mediator and facilitator on SD-related themes for relevant working groups on social, economic and environmental statistics.

The TF work quickly focused on the identification of a suitable framework and a wide-ranging review of existing SDI-related initiatives including environmental accounting took place. In November 2003, the draft framework for SDIs was presented to the SPC which expressed its satisfaction to the results achieved and gave strong support to the continuation of the work.

Further work for the selection of SDIs took place in seven sub-groups, coordinated by members of the TF. Initial results were presented to stakeholders during a workshop on SDIs jointly organised by Statistics Sweden and Eurostat in February 2004.

The compilation of data for the indicators progressed simultaneously with the development work. The data on the draft list of indicators were made available on the CIRCA interest group. This facilitated discussions within the TF but also contributed to the public consultation launched by the Commission on the SD Strategy in August 2004.

The above-mentioned process has resulted in a set of recommendations relating to further development of the framework, SDIs and existing statistics and administrative data as well as on actions strengthening data production for SDIs.

- (1) Because of the close link to the Structural Indicator exercise, the Task Force has also addressed the need for improvement of the environmental component of the Structural Indicators. The Environment Council acknowledged the inadequacy of the set of seven environment-related indicators and made a concrete contribution in proposing a so-called "open list" of 34 indicators to better cover the environmental dimension. The TF advised the Commission in the feasibility analysis of these indicators. This contribution

⁷ Participants came from competent authorities from Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Norway, Spain, Sweden, Switzerland and United Kingdom.

⁸The following DGs regularly attended the meetings of the Task Force: Environment, Enterprises, Economic and Financial affairs, Transport and Energy. Some others like Secretariat-General, Employment, Development, Fisheries, Information society and Trade occasionally attended the meetings.

was described in the interim report of the SDI TF⁹ but no further work has taken place since.

2. POLICY-RELEVANT THEME FRAMEWORK

The approach chosen

Sustainable development aims to meet the needs of the present generation without compromising the ability of future generations to meet their own needs¹⁰. This traditional definition is an appealing attempt to phrase in a simple way the complexity of the relation between economic, social and environmental development in a global context and also capturing the inter-generational aspect.

It encompasses the long-term priorities and the integration of economic performance, social cohesion and environmental protection for now and in regard to future generations. Due to the evolving nature of sustainable development, its priorities may vary spatially and temporarily.

The TF refrained from embarking in a new definition of sustainable development. Following the UN and most Member States experience, the TF has built a policy-driven framework based on the existing priorities of the EU Sustainable Development Strategy (SDS) and the most relevant international commitments taken by the EU. Some of these priorities go beyond the traditional coverage of official statistics (e.g. good governance) and will require further development if the European Statistical System is to comply with policy demands. Although discussions and outcomes of the SDI TF have been extensively used at national level, the approach chosen by the TF to focus on EU priorities means that these indicators are not *a priori* suited to serve national purposes.

The political basis

The Treaty establishing the EU in its Article 2 stipulates sustainable development as a basis for EU long-term development. The conclusions of the Gothenburg council and other subsequent European Councils, two Commission communications (SDS¹¹ and Global Partnership)¹², as well as the EU commitment to the plan of implementation of the World Summit on Sustainable Development form the basis for the SD assessment.

In February 2005, the Commission expressed its views on the review of the SDS. In March 2005, the Council made an explicit reference to the need for indicators to monitor progress towards SD. The Council adopted in June 2005 a declaration on guiding principles for sustainable development, which should serve as a basis for reviewing the SDS.

Ten themes

In response to these policy priorities, a hierarchical theme framework was developed and presented to the SPC in 2003. It constitutes a policy-relevant system for a regular monitoring of the progress towards EU objectives on SD. The review of the Strategy in 2005 could bring some new priorities, which could easily be incorporated into this framework. The themes and their sub-themes are the following:

- Economic Development (Investment, Competitiveness, Employment);

⁹ CPS 2003/51/10/EN

¹⁰ Our Common Future, UN Commission for SD, 1987

¹¹ Commission Communication COM (2001)264 final

¹² Commission Communication COM (2002)82 final
SDI/WG/6 (2006) EN

- Poverty and Social Exclusion (Monetary poverty, Access to labour market, Other aspects of social exclusion);
- Ageing Society (Pensions adequacy, Demographic changes, Public finance sustainability);
- Public Health (Human health protection and lifestyles, Food safety and quality, Chemicals management, Health risks due to environmental conditions);
- Climate Change and Energy (Climate change, Energy);
- Production and Consumption Patterns (Eco-efficiency, Consumption patterns, Agriculture, Corporate responsibility);
- Management of Natural Resources (Biodiversity, Marine ecosystems, Freshwater resources, Land use);
- Transport (Transport growth, Transport prices, Social and environmental impact of transport);
- Good Governance (Policy coherence, Public participation) and
- Global Partnership (Globalisation of trade, Financing for sustainable development, Resource management).

The sub-themes usually monitor the progress towards the headline objectives of the Strategy. In some cases the sub-themes also address so-called ‘slow burning’ concerns that may need a very long time to reverse.

3. THE SET OF SUSTAINABLE DEVELOPMENT INDICATORS

The approach chosen

The TF decided to look for policy-relevant indicators that would serve a general follow-up of measures and actions taking place in the priority policy areas. Due to the variety of users, it was also considered necessary to scrutinise the indicator selection process and prioritise the indicators according to demands of policy monitoring.

In the selection of indicators, the TF has strived for the integration of the economic, social and environmental dimensions as well as the core perspectives in order to encompass the complexity of sustainable development. The SDIs are organised in an indicator pyramid consisting of three levels that enable the prioritisation of the use of SDIs for various political purposes.

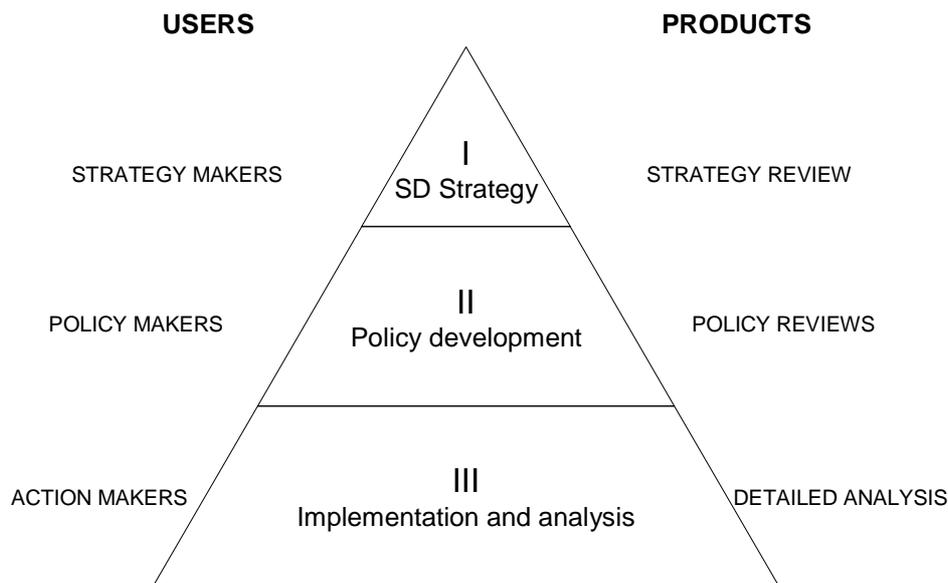
In spite of considerable data constraints, the TF work succeeded in bridging data producers and policy makers by creating a product that has already contributed to the public consultation on SDS and the on-going SDS review process.

The information system builds mostly on data and information already existing in Member States, in the Commission or other EU institutions as well as in some cases in the private sector. Nevertheless, the demands for further development are considerable. In order to facilitate an *immediate* monitoring of progress towards policy objectives of the SDS, the TF recommends to make a distinction between the so-called ‘best-available’ indicators that are readily feasible, and the so-called ‘best-needed’ indicators to be developed over a longer time period.

3.1.1. A pyramid of indicators

The hierarchical framework lends itself readily to an indicator pyramid, especially as the three levels of the framework also correspond to the objectives and measures to be monitored by SDIs. Figure 1 shows the approach to different levels of policy-making and the respective core products using the SDIs.

Figure 1. - Indicator pyramid



Level 1 (L1): consists of a set of 12 high-level indicators allowing an initial analysis of the theme development. These indicators monitor the top-level policy objectives and are aimed at a high-level policy-making and general public and can therefore be seen as a set of headline indicators.

Level 2 (L2): corresponds to the sub-themes of the framework and, together with Level 1 indicators, monitors progress in achieving the headline policy objectives. These 45 indicators are aimed at evaluation of the core policy areas and communication with general public.

Level 3 (L3): corresponds to the areas to be addressed, i.e. various measures implementing the headline objectives and facilitates a deeper insight into special issues in the theme. These 98 indicators are aimed at further policy analysis and better understanding of the trends and complexity of issues associated with the theme or inter-linkages with other themes in the framework. They are intended for a more specialised audience.

In order to avoid duplication indicators are allocated to only one theme. However some indicators may contribute to the assessment of more than one theme.

Selection of indicators

The selection of indicators applies the same principles as the Laeken indicators:

- An indicator should capture the essence of the problem and have a clear and accepted normative interpretation.
- An indicator should be robust and statistically validated.
- An indicator should be responsive to policy interventions but not subject to manipulation.
- An indicator should be measurable in a sufficiently comparable way across Member States, and comparable as far as practicable with international standards.
- An indicator should be timely and susceptible to revision.
- The measurement of an indicator should not impose on Member States, on enterprises, nor on the Union's citizens a burden disproportionate to its benefits.

And the portfolio of indicators should follow the following principles:

- The portfolio of indicators should, as far as possible, be balanced across different dimensions.
- The indicators should be mutually consistent within a theme.
- The portfolio of indicators should be as transparent and accessible as possible to EU citizens.

However, due to the policy needs and the lack of data in some fields, a pragmatic approach has been taken and the criteria have been applied with some flexibility in order not to exclude too many new key areas for sustainable development. Therefore some of the indicators proposed do not fulfil all of the criteria, but have been included because they are important contextual indicators for the SDS.

The TF applied an iterative selection process striving for a set of indicators responding adequately to the following priority concerns:

- indicator responsiveness and relevance to the headline objectives of the SDS and other EU policies;
- adequate coverage of the SD dimensions (economic, social and environmental) in each theme;
- adequate coverage of the SD perspectives (welfare, equity, efficiency, adaptability to changing conditions and transfers to future generations) in each theme;
- limited number of L1 indicators (1-2) and L2 indicators (1-2 per sub-theme);
- complementarity of indicators between themes; and
- use of most relevant breakdowns only (e.g. gender, age, income group, sector).

'Best-available' and 'best-needed' indicators

The SDS and the relevant policy documents encompass several priority areas on which no information or only partial information is available. To overcome this constraint, ensure necessary data for policy-making and describe priority needs to the SPC in a longer time-perspective, the TF divided indicators into two categories, 'best-available' and 'best-needed' ones.

The 'best-available' indicators are indicators which can be compiled on the basis of existing data. Nevertheless, some of these indicators may not be the ideal indicators, but serve as proxies for the real target, so called 'best-needed' indicators. Some indicators may also be classified as 'best-needed' due to data quality problems. Consequently, the 'best-needed' indicators refer to indicators on which:

- concept, definition as well as data do not exist yet;
- concept and definition exist, but there is no data yet;
- data exist, but the quality does not allow publishing or the breakdowns needed are not yet available or
- data exist, but the quality is unknown.

Depending on the indicator, the above mentioned features require different kinds of further development efforts relating to concepts, definitions, methodologies or data collection procedures. These are assessed and reported in the recommendation chapter.

The set of Sustainable Development Indicators

Eurostat drafted a Communication on SDIs¹³ – based on the preparatory works of the Task Force – which was adopted by the Commission in February 2005. The set of indicators and the data compiled so far facilitate a quantitative assessment of the progress towards SD objectives, the primary function of the SDIs. The scope and coherence of indicators can be qualified as fairly good, in spite of the fact that there is still a considerable amount of work required in the further development of data. These issues are addressed below in a more detailed way, indicating overall and interwoven development areas.

State of play

The SDI set - consisting of 12 headline, 45 core policy and 98 analytical indicators - forms a solid basis for regular monitoring of progress towards the headline objectives of the SDS. It facilitates an integrated evaluation of sustainable development according to:

- top policy issues via headline indicators;
- priority policy areas via headline indicators and core policy indicators;
- theme assessments via theme indicators and complementary SDIs from other themes; and
- new and emerging concerns by indicator clusters addressing simultaneous, but independent developments endangering SD in the EU.

The theme assessments will monitor the developments taking place in the core policy areas and in relation to other SD themes. The current set and the principle of flexible use of indicators between themes enable performance assessments. Nevertheless, further work will be necessary for the assignment of additional indicators from other themes.

Integration

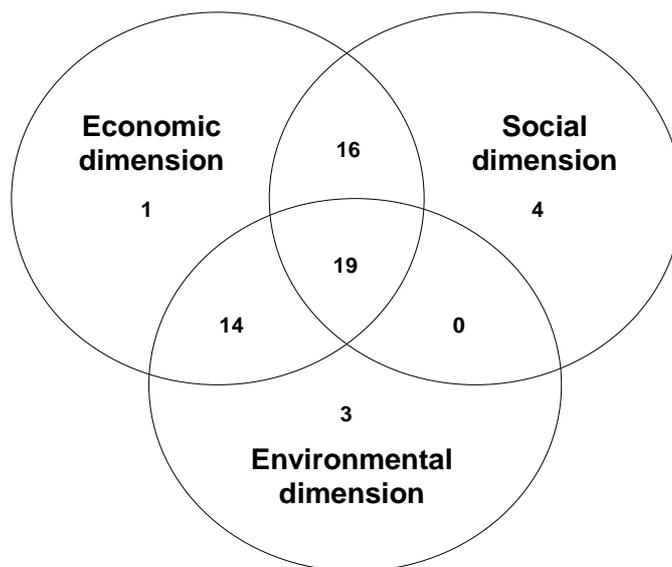
The integration of economic, social and environmental dimensions for the monitoring of sustainable development strives for a balanced view on achievements of the priority objectives and targets. In the current SDI set, the dimensional integration takes place within individual indicators or as a combination of indicators. An indicator may represent developments in all three dimensions, like for instance 'Gross domestic expenditure on R&D'. An indicator may also consist of several variables representing different dimensions and providing an integrated message in a graphical presentation.

Already at level 1 and 2, the SDI set assesses the progress in SD from the perspectives of all three dimensions in a rather balanced way. 34% of the indicators designed for communication with the general public integrate three dimensions and 86% of indicators address at least two dimensions (see Figure 2.)¹⁴. The main weakness concerns the lack of indicators measuring both the social and environmental dimensions.

¹³ Commission Communication SEC(2005)161 final of 09.02.2005: "Sustainable Development Indicators to monitor the implementation of the EU Sustainable Development Strategy"

¹⁴ The allocation of indicators across dimensions involves some degree of subjectivity, and could be interpreted in a number of different ways. The classification given here is for illustrative purpose only.

Figure 2. Dimensional integration of SDIs at level 1 and 2 (Number of indicators)



The theme-wise situation (Table 1.) gives a more diversified picture and the coverage of the various dimensions varies considerably between themes:

Table 1. Theme-wise dimensional integration at level 1 and 2 (Number of indicators)

Theme	1 dimension			2 dimensions			3 dimensions
	Eco	Soc	Env	Eco/Soc	Eco/Env	Soc/Env	Eco/Soc/Env
Economic Development	1	-	-	3	-	-	1
Poverty and Social Exclusion	-	-	-	4	-	-	-
Ageing Society	-	-	-	4	-	-	-
Public Health	-	1	-	3	-	-	2
Climate Change and Energy	-	-	-	-	6	-	-
Production and Consumption Patterns	-	-	-	-	2	-	6
Management of Natural Resources	-	-	3	-	1	-	3
Transport	-	-	-	-	4	-	2
Good Governance	-	3	-	1	-	-	2
Global Partnership	-	-	-	1	1	-	3
Total	1	4	3	16	14	0	19

Eco.: economic, Soc.: social, Env.: environmental

Integration should be the subject of some improvements in the future. For instance, socio-economic factors, individual preferences or behaviour tend to be ‘invisible’ driving forces for both economic and environmental development, but are not fully surveyed from a SD perspective. Furthermore, the economic value or the social importance of the diversity and quality of natural environment are seldom distinguished as contributors to welfare. Such areas would require further conceptual research before indicators can be assigned.

SD issues not yet addressed by indicators

The majority of headline objectives are monitored by the SDI set, but due to shortcomings in knowledge and/or methodologies, some issues have not been addressed.

This is most notably the case of pricing, technological development, public access to information and EU impact on the global carrying capacity. The TF expects these, as well as other poorly covered areas such as economic and social aspects of environmental concerns, to be better represented in future revisions of the indicator set.

Overview of data situation

Data problems such as data availability, lack of international definitions or methodologies, poor coverage or limited access to data may severely hinder the compilation of SDIs. One of the best justifications for the TF work was to efficiently and proactively merge statistical aspects to the development of indicators and hence, assure accelerated compilation of indicators for decision making.

Table 2. presents an overview of data quality in the set of SDIs. It indicates that none of the themes have excellent data quality, but around 69% of the indicators have publishable data quality. The best situation concerning data can be found in the themes on Economic Development, Poverty and Social Exclusion, Ageing Society, Climate Change and Energy and in Global Partnership. Only satisfactory or poor data are available for all the other themes, and 12 sub-themes out of 31 cannot be monitored at all due to shortcomings in data, concepts, definitions and/or methodologies. Data availability is mainly based on statistical sources, but in some areas, such as ageing or climate change, modelling contributes significantly to data production.

Table 2. Data quality of the preliminary set of SDIs at level 1 and 2

Economic Development	Poverty and Social Exclusion	Ageing Society	Public Health	Climate Change & Energy	Production & Consumption Patterns	Management of Natural Resources	Transport	Good Governance	Global Partnership
Investment	Monetary poverty	Pension adequacy	Health protection and lifestyles	Climate change	Eco-efficiency	Biodiversity	Transport growth	Policy coherence	Globalisation of trade
Competitiveness	Access to labour market	Demographic changes	Food safety and quality	Energy	Consumption patterns	Marine ecosystems	Transport prices	Public participation	Financing for development
Employment	Other asp. of social exclusion	Public Finance sustainability	Chemicals management		Agriculture	Freshwater resources	Social and env. impact of transport		Resource management
			Health risks due to env. conditions		Corporate responsibility	Land use			

	Data available of good quality
	Lack of data in some areas, problems of quality
	Severe lack of data or methodological problem

'Best-available' and 'best-needed' indicators

Table 3. presents the situation concerning the classification between 'best-available' and 'best-needed' indicators. It shows that the best situation is in the themes on Economic Development, Poverty and social exclusion, Ageing society, Climate Change and Energy as well as in Global Partnership, where data quality of 'best-available' indicators is good and only one indicator of level 1 or 2 is a proxy for a 'best-needed' one. The most problematic situation appears in themes Public health, Production and Consumption, Management of natural resources and Transport, where a large number of indicators are 'best-needed'.

Table 3. 'Best-available' and 'best-needed' indicators (number of indicators)

THEME	Level 1			Level 2			Level 3			TOTAL
	BA	BN	Total	BA	BN	Total	BA	BN	Total	
Economic Development	1	-	1	4	-	4	16	-	16	21
Poverty and Social Exclusion	1	-	1	3	-	3	8	2	10	14
Ageing Society	1	-	1	2	1	3	5	2	7	11
Public health	1	-	1	2	3	5	7	6	13	19
Climate Change and Energy	2	-	2	4	-	4	7	2	9	15
Production and Consumption Patterns	-	1	1	4	3	7	8	4	12	20
Management of Natural Resources	1	1	2	1	4	5	2	8	10	17
Transport	-	1	1	4	1	5	6	3	9	15
Good Governance	1	-	1	2	3	5	3	2	5	11
Global Partnership	1	-	1	4	-	4	6	1	7	12
TOTAL	9	3	12	30	15	45	68	30	98	155

BA: 'best-available'; BN: 'best-needed'

Table 3. shows that among the set of 155 SDIs there are:

- 12 headline indicators of which 3 are 'best-needed' (3 proxies proposed);
- 45 level-2 indicators of which 15 are 'best-needed' (6 proxies proposed);
- 98 level-3 indicators of which 30 are 'best-needed' (but only 2 proxy indicators proposed).

Proxies can be considered as an intermediate answer to the issue at stake which is defined by 'best-needed' indicators. In the SDI set, 3 headline indicators and 6 level-2 indicators are proxies that will be replaced with 'best-needed' indicators at a later stage. Due to the limited coverage, proxies provide only preliminary and very often only marginally satisfactory information on progress towards policy objectives. Nevertheless, due to the very slow process of new data production, the contribution of proxies is indispensable in the short-term for the monitoring of some priority areas in order not to leave some key problems without answer.

The 107 'best-available' indicators and the 11 proxy indicators (which represent 76% of the 155 SDIs) are published on Eurostat website. Most of these indicators come from regular data collection, but data are often not available for all EU Member States and candidate countries.

Depending on the policy area, the development of new data production practices may take a minimum of 2 years. Consequently, it would be necessary to prioritise data development efforts and focus on the collection of data needed for the compilation of ‘best-needed’ indicators:

Table 4. List of ‘best-available’ and ‘best-needed’ indicators at level 1 and 2

Level/ Theme	‘Best-needed’ indicators	Proxy for the ‘best-needed’ indicators	Situation of the ‘best-needed’ indicators
L1-PCP	Total Material Consumption	Domestic Material Consumption	Methodology exists; lack of data for most countries
L1-MNR	Biodiversity index	Population trends of farmland birds	Some work done by EEA. No agreement on methodology
L1-TR	Vehicle-km	Energy consumption by transport	Methodology exists; lack of data for some modes of transport
L2-AS	Projected theoretical replacement ratio	Relative median income ratio	Data collection under progress (SILC)
L2-PH	Deaths due to infectious food-borne diseases	Salmonellosis incidence rate in human beings	Lack of data and methodology
L2-PH	Index of apparent consumption of chemicals	Index of production of chemicals	No agreement on methodology. Work on progress at Eurostat
L2-PH	Population exposure to air pollution by particulate matter	-	Lack of data and methodology. Ongoing work between DG ENV, Eurostat and EEA
L2-PCP	Generation of waste	Municipal waste collected	Data will be available with upcoming Waste Statistics Regulation
L2-PCP	Green public procurement	-	Administrative data to be checked
L2-PCP	Share of industrial production from enterprises with a formal sustainable management system	Enterprises with an environmental management system (EMS)	No data. The concept of sustainable management system is extremely difficult to conceive. Additional parameter would need to be added in Structural Business surveys
L2-MNR	Sufficiency of Member States proposals for protected sites (EU Habitats directive)	-	Indicator under development by DG ENV and the EEA
L2-MNR	Trends of spawning biomass of selected fish stocks	-	Indicator selected by DG FISH for Sustainable Fisheries indicators. No data available
L2-MNR	Land use changes	Built-up areas	No dynamic data available yet. Possibility to use LUCAS data at EU level
L2-MNR	Exceedance of critical loads of acidifying substances and nitrogen	-	Lack of data and methodology
L2-TR	External costs of transport activities	-	Lack of data and methodology
L2-GG	Proportion of environmentally harmful subsidies	-	Some work done by OECD. Lack of data and methodology
L2-GG	Administrative cost imposed by legislation	-	Lack of data and methodology
L2-GG	Responses to EC Internet public consultations	-	Administrative data to be checked

Another concern is the relatively small amount of proxies available for the ‘best-needed’ indicators (6 out of 15 for level-2 indicators, 2 out of 30 for level-3 indicators). The positive aspect is that the TF work has identified information needs in new important areas and aspects that will contribute to better knowledge and monitoring of sustainable development. The negative aspect is that these areas will suffer from lack of any data for several years. Consequently, there is an urgent need to intensify the development of statistical and/or administrative data in areas where several ‘best needed’ indicators are lacking.

Link with other indicators initiatives

Sustainable development indicators were developed through an initial phase of examination of other major SD indicators initiatives such as the UN’s and the OECD’s. Close links are also maintained with related initiatives such as the Millennium Development Goals Indicators.

SDIs are also related to other relevant indicator sets at EU level. In the same way as the Lisbon and the Sustainable Development Strategies have common objectives and serve the same overarching goal of sustainable development, the set of SDIs is closely connected to the set of structural indicators. 36 of the available SDIs (out of 118) are also structural indicators. In addition, the work on SDIs has very much benefited from the experience acquired with the structural indicators. There is also a high similarity between the ‘Poverty and Social Exclusion’ SDIs and the Laeken indicators. Additionally, the TF has retained relevant indicators from EU initiatives such as ECHI, IRENA, TREN, or the EEA core set of environmental indicators (see annex 1).

RECOMMENDATIONS FOR FURTHER DEVELOPMENT

A Working Group on Sustainable Development Indicators

Eurostat will set up a Working Group on Sustainable Development Indicators, with the following mandate:

- To maintain and further improve the quality of the output of the SDI Task Force (framework, indicators, data, inter-linkages, nowcasting and forecasting);
- Follow and evaluate preparatory work on further development of best needed indicators
- To improve the communication on SDIs, including their presentation and dissemination;
- To exchange best practices among EU Member States and associated countries;
- To support the further development of EU Sustainable Development policies through the provision of relevant SDIs.

The European Commission and the EU Member States should support actively the works of this Working Group through sending appropriate representatives and providing adequate resources. These should have experience with sustainable development policies and indicators, as well as with statistical production for SDIs.

About the framework

The TF recommends that the framework of SDIs remains tightly interwoven with the policy developments on sustainable development in the EU. The policy responsiveness and statistical robustness contribute to secure utilisation of the information for decision-making as well as for communication which will further contribute to the increasing involvement of citizens in the EU decision-making processes.

Several policy processes such as the successive reviews of the SD strategy may have an impact on policy priorities, which ought to be reflected in the framework and in the SDI set.

As mentioned in 4.1, the Working Group on SDIs will address the needs for the forthcoming revision(s) of the framework and set of SDIs so that Eurostat is able to conduct the necessary tasks together with countries and EU services or agencies in a timely fashion.

About indicators

Scope of SDIs

There are a few policy objectives listed in the framework for which no indicator has been identified, not even a 'best-needed' one. Therefore the TF recommends addressing the following issues in the course of the forthcoming updates/revisions of the framework and SDIs:

- Investments in R&D by priority area;
- Valuation of natural resources and their services;
- Food safety;
- Impact of dangerous chemicals;
- Inclusion of IPF/IFF proposals¹⁵ on forestry;
- Public access to information and
- EU influence on the carrying capacity of global environment.

The scope and coverage of the SDI set is also affected by the restricted number of indicators at each level. Indicators were chosen for their perceived advantages and their relevance to policy objectives. This choice implies that, with the knowledge at hand, the coverage of a particular aspect of a policy area was preferred over other ones. The Working Group on SDIs will make proposals for the revision of the set of SDIs according to new policy needs.

Dimensional integration

The SDI set encompasses the core dimensions of sustainable development. Nevertheless, the theme-wise situation is not balanced. The TF recommends further work especially with respect to indicators on:

- Valuation of natural resources and their services;
- External costs and their internalisation;
- Socio-economic preferences/choices/behaviour affecting consumption and state of the environment;
- Availability of socio-economic breakdowns for indicators on health, consumption and governance.

¹⁵ The United Nations Commission on Sustainable Development (CSD) facilitated these intergovernmental deliberations by establishing the Intergovernmental Panel on Forests (IPF) in 1995 and the Inter-governmental Forum on Forests (IFF) in 1997.

All these areas require further conceptual and methodological research before specific indicators can be assigned.

The integration of economic, social and environmental dimensions calls for new combinations of statistical variables that emphasize the need for integrated tools such as the national accounts framework and a good compatibility of classifications.

About the development of data for indicators

Priorities for data development

Most indicators retained by the TF come from regular data collection within the European Statistical System (only 22 out of 155 were not yet available in Eurostat databases, mainly in the themes on Good Governance and Global Partnership). Most of the proposed indicators (69%) are already available and therefore the overall data situation can be considered as fairly satisfactory. Nevertheless, the existence of 48 'best-needed' indicators (3 level-1, 15 level-2, 30 level-3) affects seriously the homogeneity of the overall set and impairs the assessment of sustainable development.

In accordance with policy priorities, the TF recommends the following priorities for further development of indicators:

- Top priority: development of level-1 'best-needed' indicators and improvement of proxy indicators for level 1 and 2;
- High priority: development of level-2 'best-needed' indicators and level-3 indicators contributing to level 2 assessment of other themes; and
- Medium priority: other level 3 indicators.

Furthermore, the TF recommends that special efforts are made in view of the further improvement of data for indicators in the themes where available information does not allow for a proper monitoring of the priority policy objectives of the EU Strategy , namely Public Health, Production and Consumption Patterns, Management of Natural Resources and Good Governance. For memory, between 40 and 75 % of indicators in these themes are 'best-needed'.

Main areas of data development

The TF recommends increasing efforts on the development and creation of interactive and mutually compatible information systems in Europe. This will enable more efficient and multi-purpose data production and assure quality data for the monitoring of progress towards the priority policy areas of sustainable development. This approach shifts the focus from individual databases to a more global approach of sustainable development based on mutually complementary systems offering efficiency gains through compatibility, wider and more convenient use of data for multidimensional assessments. Development of these systems requires an interdisciplinary approach and innovativeness in merging different data production traditions to mutually complementary systems.

The TF emphasizes that the above-mentioned developments should not be restricted to statistical systems, but rather search for enhancing co-operation and data exchange especially between statistical and administrative systems, but also between statistics, research and modelling and private data producers, encouraging the use of common methodologies, quality standards and nomenclature.

The TF recommends that the development of on-line data exchange practices should start first between Eurostat and DGs in the compilation of the headline and core policy indicators for sustainable development. Respective pilot projects should be discussed between administration and statistical systems at national or European level.

The TF recommends strengthened co-operation between statistics and research communities in the methodological work. A very important co-operation area in the monitoring of sustainable development relates to methodological development for the weighting of environmental impacts of materials, assessing internalisation of external costs of environmental damages, valuation of natural resources and projections of future developments in ageing society, public health, material consumption and mobility.

For the TF, it is also essential to bridge data development practices to actors and/or institutions in the private sector. Particularly valuable data production takes place currently in NGOs on the proxy headline indicator Population of farmland birds or in business organisations on Ethical financing. All these will greatly contribute to the SD monitoring, but would require specification of commonly accepted conditions for data acquisition, quality assurance and dissemination.

Table 5. General recommendations for data developments

<p>European Statistical Systems together with international statistical community (inc. OECD)</p> <p>Critical areas for system developments:</p> <ul style="list-style-type: none"> • NAMEA and Material Flow Accounting¹⁶ • Basic statistics on materials¹⁷ • Public Health Statistics¹⁸ • Land use statistics¹⁹ • R&D, Innovation and technology statistics²⁰ • socio-economic breakdowns for consumption indicators <p>Technical system developments:</p> <ul style="list-style-type: none"> • Efficient data access, exchange and new data production on the basis of interconnected statistical and administrative systems <p>Methodological developments:</p> <ul style="list-style-type: none"> • Forecast methods for indicators related to ageing, human health as well as material and energy consumption • Coherent and consistent methodologies for the estimation of EU totals for SDIs <p>Quality Reporting:</p> <ul style="list-style-type: none"> • Implementation of the Quality Profile for SDIs (already implemented with some structural indicators)

¹⁶ Further development of accounting system in all MS.

¹⁷ Improvement of physical and monetary data, in particular in strengthening the compatibility of various systems of material statistics (PRODCOM, Comext, Sirene, Freight transport, Household Survey, Chemicals, Waste, Water resources and Emissions to air and water).

¹⁸ Improvement of the basic data on 'Healthy life years' with various socio-economic breakdowns and development of projections with policy options. System development for monitoring of environmental pollution and human exposures to harmful substances via air, food and environment.

¹⁹ Strengthening the development of statistical aspects of GIS data production in GMES and in INSPIRE projects and production of statistics on changes in land use, habitat compositions, ecosystem fragmentation, soil erosion and contamination.

²⁰ Further development of R&D and innovation statistics by fields.

<p>Administrative data reporting from Member States to the Commission:</p> <ul style="list-style-type: none"> • DG AGRI: Export subsidies to agricultural products, Imports of eco-labelled agricultural products • DG ECFIN: Environmentally-harmful subsidies • DG ENV: Sufficiency of protected areas, Threatened and endangered species, EMAS/ISO 14001 • DG ENTR: Production of Sustainable Development-managed enterprises • DG FISH: Spawning biomass of selected species, Fishing capacity and quotas, Structural support to fisheries, Environmentally-friendly fishing practices • DG MARKT, ENV: Green public procurement • DG PRESS: Public access to information, Citizen's confidence in EU institutions • DG SANCO: Pesticide residues in food, Job strain, Deaths due to food-borne diseases, Dioxins, Heavy metals in fish and shellfish • DG SG: Administrative cost imposed by legislation, Transposition of Community law, Responses to public consultations, statistics on Impact Assessments, Public access to information • DG TRADE: Fair trade • EEA: Biodiversity indicator, Status of fresh water bodies, Land cover, Habitats, Marine environment, contribution to the Clean Development Mechanism • Court of Justice: Infringement cases
<p>Research and modelling:</p> <ul style="list-style-type: none"> • Methodology for environmental impacts of materials in use in EU-25, • External costs of environmental damages and their internalisation, • Valuation of natural resources, • Projection methodologies for the assessment of human health and interlinked socio-economic factors, • Projections of pension expenditure and public expenditure of the elderly care, • CO₂ removal by sinks • EU influence on the carrying capacity of global environment
<p>Private sector, NGOs and others:</p> <ul style="list-style-type: none"> • Populations of birds' and other species, Ethical financing

Annex 2 presents the detailed recommendations for the further development of the SDI set according to the top, high and medium priority indicators (see 4.3.1.). The recommendations relate to individual indicators, but create in many cases synergies across actions singled out in Table 5.

The TF recommends that detailed work plans for the further development of data for the SDIs are prepared in the relevant data-producing organisations and that advancements in the further development will be discussed in the meeting of the Working Group on Sustainable Development Indicators which would act as a coordinating body for future development.

About dissemination of SDIs

Eurostat webpages on SDIs were opened in March 2005²¹ The TF recommends that the communication on SDIs should be further improved in using better visualisation tools. Additional communication including a statistical assessment of SD trends should be done in connection with Council needs and as a minimum with each review of the SD Strategy. This will ensure that indicators provide an appropriate monitoring of SD and thus contribute to policy discussions on a regular basis. The TF also recommends that standardised metadata and quality reports should be made available for users via the Internet.

About enhanced communication with data producers and users

The compilation of SDIs uses data from a large variety of data sources. The diversity of data producers and the tight deadlines set for the regular compilation of indicators requires that the overall process of data development, compilation and dissemination is well coordinated.

The support and involvement of the SPC will be indispensable for the successful implementation and follow-up process. Therefore the TF recommends that the SPC is kept regularly informed about progress on SDIs and supports Eurostat efforts for a better coordination of the international development work between various EU institutions and international organisations.

Eurostat resources will be essential for the practical day-to-day work. Hence the TF recommends that the resource needs related to these tasks are taken into account in the Eurostat annual work programme.

ANNEXES

Annex 1: List of Sustainable Development Indicators

Annex 2: Further developments of individual indicators

²¹ <http://europa.eu.int/comm/eurostat/sustainabledevelopment>

ANNEX 1

LIST OF SUSTAINABLE DEVELOPMENT INDICATORS

The indicators marked in *italics* are so-called ‘best needed’ indicators. The indicators are compared with identical or similar indicators in other indicator sets, produced at EU or UN level. When indicators are not identical but only similar, references to other sets are marked between brackets.

List of abbreviations:

- CSD (UN Commission for Sustainable Development);
- ECHI (European Community Health Indicators);
- EEA (Core Set of Indicators);
- IRENA (Indicator Reporting on the integration of ENvironmental concerns into Agricultural policy);
- Laeken (Indicators on Poverty and Social Exclusion adopted at the Laeken Summit);
- MDG (Indicators related to the Millennium Development Goals);
- OECD (Core set of SDIs of the OECD)
- SI (Structural Indicators);
- SPC (Indicators on Ageing Society by the Social Protection Committee);
- TERM (Transport-Environment Reporting Mechanism)

Level	Indicator label	Other indicator sets	External
THEME 1: ECONOMIC DEVELOPMENT			
1	Growth rate of GDP per capita	(CSD)	
2	Total investment, by institutional sector	SI, CSD	
3	Real GDP growth rate	SI	
3	GDP per capita in PPS	SI	
3	Regional breakdown of GDP per capita		
3	Total consumption expenditure	OECD	
3	Net national income		
3	Inflation rate	SI	
3	Total net saving, by institutional sector		
2	Labour productivity per hour worked	SI, (OECD)	
2	Real effective exchange rate		
3	Unit labour cost growth, for total and industry	SI	
3	Life-long learning: total	SI	
3	Turnover from innovation, by economic sector		
3	Gross domestic expenditure on R&D: total	SI, CSD	
3	Total public expenditure on education	SI, OECD	
2	Total employment rate	SI, ECHI, OECD	
3	Total employment growth	SI	
3	Total employment rate, by gender and by highest level of education attained	SI	
3	Total unemployment rate, by gender, by age group, and by highest level of education attained	SI, CSD, MDG, OECD	
3	Regional breakdown of employment rate	(SI)	

Level	Indicator label	Other indicator sets	External
THEME 2: POVERTY and SOCIAL EXCLUSION			
1	At-risk-of-poverty rate after social transfers: total	SI, Laeken, ECHI	
2	At-persistent-risk-of-poverty rate: total	SI, Laeken	
3	At-risk-of-poverty rate after social transfers, by gender, by age group, by highest level of education attained, and by household type	SI, Laeken	
3	Relative at-risk-of-poverty gap	Laeken	
3	Inequality of income distribution (Income quintile share ratio)	SI, Laeken, CSD, (OECD)	
3	<i>Poverty mobility</i>		
2	Total long-term unemployment rate	SI, Laeken	
3	Gender pay gap in unadjusted form	SI, CSD	
3	Total very long-term unemployment rate	Laeken	
3	People aged 0-59 living in jobless households, by age group	SI, Laeken	
3	At risk-of-poverty rate after social transfers, by most frequent activity	Laeken	
2	Early school-leavers: total	SI, Laeken, (OECD)	
3	Persons with low educational attainment, by age group	Laeken, (OECD)	
3	<i>Adequacy of housing conditions</i>		
THEME 3: AGEING SOCIETY			
1	Current and projected old age dependency ratio	SPC	
2	<i>Projected theoretical replacement ratio</i>		
2	Relative median income ratio	SPC	
3	At-risk-of-poverty rate after social transfers for persons aged 65 years and over	SPC	
2	Life expectancy at age 65 by gender	SPC, ECHI, (OECD)	
3	Total fertility rate	ECHI	
3	Net inwards migration, by age group		
2	General governmental debt	SI, CSD	
3	Current <i>and projected</i> public pensions expenditure	SPC	
3	Total employment rate, by age group	SPC, ECHI	
3	Average exit age from the labour market, by gender	SI, SPC	
3	Current <i>and projected</i> public expenditure on care for the elderly	(SPC)	
THEME 4: PUBLIC HEALTH			
1	Healthy life years at birth by gender	SI, ECHI, (CSD)	
2	Percentage of overweight people	ECHI	
2	Resistance to antibiotics		✓
3	Healthy life years at age 65 by gender	ECHI	
3	Health care expenditure	ECHI	
3	Cancer incidence rate, by gender and by type	ECHI	
3	Suicide death rate, by gender and by age group	ECHI	
3	Percentage of present smokers, by gender and by age group	ECHI	
3	<i>Work with high level of job stress</i>		✓
3	Serious accidents at work: total	SI	
2	<i>Deaths due to infectious food-borne diseases</i>		✓
2	Salmonellosis incidence rate		✓
3	<i>Dioxins and PCBs in food and feed</i>		✓
3	<i>Heavy metals in fish and shellfish</i>		✓

Level	Indicator label	Other indicator sets	External
THEME 4: PUBLIC HEALTH (cont.)			
3	<i>Pesticides residues in food</i>		✓
2	<i>Index of apparent consumption of chemicals, by toxicity class</i>		
2	Index of production of chemicals, by toxicity class		
3	<i>Population exposure to air pollution by particulate matters</i>	SI, (EEA), (OECD)	✓
3	<i>Population exposure to air pollution by ozone</i>	SI, (EEA), (OECD)	✓
3	Proportion of population living in households considering that they suffer from noise and from pollution		
3	<i>Monetary damage of air pollution</i>		✓
THEME 5: CLIMATE CHANGE AND ENERGY			
1	Total greenhouse gas emissions	SI, CSD, OECD	✓
2	GHG emissions by sector		✓
3	CO ₂ intensity of energy consumption		
3	<i>CO₂ removed by sinks</i>		✓
1	Gross inland energy consumption, by fuel	EEA, (OECD)	
2	Energy intensity of the economy	SI, EEA, CSD	
2	Final energy consumption by sector	EEA, (MDG)	
2	Gross electricity generation by fuel used in power stations		
3	Share of electricity from renewable energy to gross electricity generation, by source	SI, IRENA, EEA, CSD	
3	Combined heat and power generation		✓
3	Energy intensity of manufacturing industry		
3	Consumption of biofuels		
3	<i>External costs of energy use</i>		✓
3	Energy tax revenue		
3	High-level radioactive waste and spent nuclear fuel awaiting permanent disposal	CSD	✓
THEME 6: PRODUCTION AND CONSUMPTION PATTERNS			
1	Total material consumption	(CSD)	
1	Domestic material consumption	(CSD)	
2	Emissions of aggregated acidifying substances and ozone precursors, by sector	EEA, (OECD)	✓
2	<i>Generation of waste by all economic activities and by households</i>	(SI), (EEA), CSD, OECD	
2	Municipal waste collected	SI, EEA, OECD	
3	Components of domestic material consumption		
3	Domestic material consumption, by material		
3	Municipal waste treatment, by type of treatment method	SI, (EEA), CSD	
3	<i>Generation of hazardous waste, by economic activity</i>	CSD	
2	Electricity consumption per dwelling		
2	<i>Green public procurement</i>		✓
3	Household number and size		
3	Meat consumption per capita		
3	<i>Share of consumption of products with an EU or national eco-label</i>		✓
2	Share of area under agri-environmental support	IRENA	✓
2	Livestock density index		
3	Nitrogen surplus		
3	Share of area occupied by organic farming	IRENA, EEA	
3	<i>Use of selected pesticides</i>	CSD	

Level	Indicator label	Other indicator sets	External
THEME 6: PRODUCTION AND CONSUMPTION PATTERNS (cont.)			
3	<i>Share of production from enterprises with a sustainable management system</i>		✓
3	Enterprises with an environmental management system		✓
3	<i>Ethical financing</i>		✓
3	Eco-label awards, by country and product group		✓
THEME 7: MANAGEMENT OF NATURAL RESOURCES			
1	Biodiversity index		✓
1	Population trends of farmland birds	SI, IRENA	✓
1	Fish catches from stocks outside 'safe biological limits'	SI, (CSD)	✓
2	<i>Sufficiency of Member States proposals for protected sites under the Habitats Directive</i>	SI, (IRENA), (CSD), (OECD)	✓
3	<i>Change in status of threatened and/or protected species</i>	(IRENA), EEA, (CSD)	✓
2	<i>Trends of spawning biomass of selected fish stocks</i>		✓
3	<i>Effective fishing capacity and quotas, by specific fisheries</i>		✓
3	Size of fishing fleet	EEA	✓
3	<i>Share of structural support to fisheries allocated to promote environmentally-friendly fishing practices</i>		✓
2	Groundwater abstraction	IRENA, CSD, OECD	
3	Population connected to wastewater treatment systems	EEA, (MDG)	
3	<i>Emissions of organic matters as biochemical oxygen demand to rivers</i>	CSD	✓
3	<i>Index of toxic chemical risk to aquatic environment</i>		✓
2	<i>Land use changes, by category</i>	IRENA	
2	Built-up areas	(CSD)	
2	<i>Exceedance of critical loads of acidifying substances and nitrogen in sensitive natural areas</i>		✓
3	<i>Share of total land area at risk of soil erosion</i>	IRENA	✓
3	<i>Share of total land area at risk of soil contamination</i>	IRENA	✓
3	Forest trees damaged by defoliation	MCPFE	✓
3	<i>Fragmentation of habitats due to transport</i>	TERM	✓
THEME 8: TRANSPORT			
1	Vehicle-km index		
1	Total energy consumption of transport	TERM	
2	Car share of inland passenger transport	SI	
2	Road share of inland freight transport	SI	
3	Modal split of passenger transport		
3	Modal split of freight transport		
3	Volume of freight transport	SI	
3	Energy consumption by transport mode	TERM	
3	<i>Access to public transport</i>		✓
2	<i>External costs of transport activities</i>	TERM	✓
3	<i>Freight transport prices by mode</i>		✓
3	<i>Investment in transport infrastructure by mode</i>	TERM	
2	Emissions of air pollutants from transport activities	TERM	
2	Greenhouse gas emissions from transport activities	TERM	
3	People killed in road accidents, <i>by age group</i>		✓
3	Emissions of NO _x from road vehicles	TERM	

Level	Indicator label	Other indicator sets	External
THEME 9: GOOD GOVERNANCE			
1	Level of citizen's confidence in EU institutions		✓
2	<i>Proportion of environmentally-harmful subsidies</i>		✓
2	Number of infringement cases, by policy area		✓
2	<i>Administrative costs imposed by legislation</i>		✓
3	<i>Share of major proposals with an impact assessment</i>		✓
3	Transposition of Community law, by policy area		✓
2	Voter turnout in national Parliamentary elections		✓
2	<i>Responses to EC internet public consultations</i>		✓
3	Voter turnout in EU parliamentary elections		✓
3	E-government on-line availability	SI	
3	E-government usage by individuals: total	SI	
THEME 10: GLOBAL PARTNERSHIP			
1	Official Development Assistance	CSD, MDG	✓
2	EU imports from developing countries, total and agricultural products	(MDG)	
2	Sales of selected fair-trade labelled products		✓
3	Total EU imports from developing countries, by income group		
3	Total EU imports from developing countries, by group of products		
2	Bilateral ODA by category	MDG	✓
3	Total EU financing for development, by type		✓
3	ODA and FDI to developing countries, by income group and by geographical area		✓
3	Share of untied ODA in total bilateral ODA commitments	MDG	✓
3	ODA per capita, in EU15 donors and in recipient countries		✓
2	EU imports of material from developing countries, by group of products		
3	<i>Contribution to the Clean Development Mechanism</i>		✓
3	CO ₂ emissions per capita in the EU and in developing countries		✓

ANNEX 2

Recommendations for the further development of individual indicators

Table A. Recommendations for data development - Top Priority Indicators

'Best-needed' indicators are in italics

Level	Theme	Indicator	Recommended developments	Producer
1	Headline indicators			
	PCP	<i>Total material consumption</i>	Develop environmentally-adjusted weighting of materials consumption	Eurostat
	MNR	<i>Biodiversity index</i> Population trends of <i>woodland, farmland and wetland</i> birds	Develop conceptual approach and technical compilation method for the Biodiversity Indicator. Identify the basic data sources and compile the index. Expand the coverage of the indicators to other species and to EU-25 countries	EEA BirdLife International
	TR	<i>Vehicle-km by mode of transport</i>	Improve data comparability between modes of transport.	Eurostat
2	Proxy indicators at level 2			
	MNR	Groundwater abstraction as % of available resources	Improve data quality	Eurostat
	TR	Modal split of passenger transport	Improve data comparability between modes	Eurostat
	TR	Modal split of freight transport	Improve data comparability between modes	Eurostat

Table B. Further data development - Indicators of high priority

'Best-needed' indicators are in italics

Level	Theme	Indicator	Recommended developments	Producer
2	'Best-needed' indicators at level 2			
	AS	<i>Projected theoretical replacement ratio</i>	Availability of SILC data	Eurostat
	PH	Percentage of overweight people, <i>by age group</i>	Develop harmonised methodology for data compilation as well as breakdown by age group	Eurostat
	PH	Resistance to antibiotics	Broaden the scope of the indicator	DG SANCO
	PH	<i>Deaths due to infectious food-borne diseases</i>	Develop harmonised methodology for data compilation	DG SANCO
	PH	<i>Index of apparent consumption of chemicals, by toxicity class</i>	Develop methodologies for index formation and data collection	Eurostat
	PH	<i>Population exposure to air pollution by particulate matters</i>	Develop methodology	EEA, Eurostat

Level	Theme	Indicator	Recommended developments	Producer
2	'Best-needed' indicators at level 2			
	PCP	<i>Generation of waste by all economic activities and by households</i>	Finalise the methodological development and start data collection under the new Waste Statistics Regulation	Eurostat
	PCP	<i>Green public procurement</i>	Harmonise and standardise administrative reporting practices on public procurement	DG ENTR
	PCP	<i>Share of industrial production from enterprises with a formal sustainable management system</i>	Develop harmonised methodology. Use single coding for administrative reporting and business statistics	DG ENTR, Eurostat
	MNR	<i>Sufficiency of MS proposals for protected sites under the Habitat directive</i>	Define a common understanding for the notion of area to be protected	EEA
	MNR	<i>Trends for spawning stocks by selected species</i>	Assess the data quality and coverage and expand to all sea areas of the EU	ICES, DG FISH
	MNR	<i>Land use change</i>	Harmonise monitoring methodology and start regular data collection	Eurostat, JRC
	MNR	<i>Exceedance of critical loads of acidifying substances and nitrogen in sensitive natural areas</i>	Improve methods of estimation and coverage	EEA
	TR	<i>External costs of transport activities</i>	Develop methodology and regular administrative data collection system	DG TREN
	GG	<i>Proportion of environmentally-harmful subsidies</i>	Develop methodology and regular administrative data collection system	DG ECFIN
	GG	<i>Administrative cost imposed by legislation</i>	Develop methodology and regular administrative data collection system	DG ECFIN
	GG	<i>Responses to EC Internet public consultations</i>	Develop methodology and regular administrative data collection system	DG PRESS
	GP	EU imports from developing countries (total and agricultural products) and agricultural budgetary support	Collect harmonised data on agricultural budgetary support	DG AGRI
3	Level 3 indicators for level 2 assessments			
	ED ⇒ PCP	R&D expenditure by category	Develop further breakdowns of data for R&D categories	Eurostat
	AS ⇒ GP	Net inwards migration	Develop further breakdowns of data for geopolitical regions used in GP	Eurostat
	CC ⇒ MN R	<i>CO₂ removed by sinks</i>	Develop methodology and start data collection by habitat types	EEA

Table C. Further data development - Indicators of medium priority

'Best-needed' indicators are in italics

Level	Theme	Indicator	Recommended developments	Producer
3	Other level 3 indicators			
	PSE	<i>Poverty mobility</i>	Develop methodology. Availability of SILC data	Eurostat
	PSE	<i>Adequacy of housing conditions</i>	Develop methodology (on-going work)	Eurostat
	AS	Current and <i>projected</i> public and <i>private</i> pensions expenditures	Start data collection for private pensions systems. Develop common methodology for projected expenditures	DG ECFIN, Eurostat
	AS	Current and <i>projected</i> public expenditures on care for the elderly	Develop common methodology for projected expenditures	DG ECFIN, Eurostat
	PH	Smoking prevalence	Improve data quality	Eurostat
	PH	<i>Work with high level of job strain/stress</i>	Develop methodology and start data collection	Eurostat, DG EMPL
	PH	<i>Dioxins and PCBs in food and feed</i>	Develop methodology and start data collection	DG SANCO, Eurostat
	PH	<i>Heavy metals in fish and shellfish</i>	Develop methodology and start data collection	DG SANCO, Eurostat
	PH	<i>Pesticides residues in food</i>	Harmonise the scope and methodology of data collection	DG SANCO
	PH	<i>Population exposure to air pollution by ozone</i>	Develop methodology	EEA, Eurostat
	PH	<i>Monetary damage of air pollution</i>	Develop methodology for estimations	JRC
	CC	<i>External costs of energy use</i>	Develop methodology for estimations	DG TREN, Eurostat
	PCP	<i>Generation of hazardous waste</i>	Finalise the methodological development and start data collection under the Waste Statistics Regulation	Eurostat
	PCP	<i>Share of consumption of products with an EU or national eco-label</i>	Develop methodology and start data collection	Eurostat
	PCP	<i>Use of selected pesticides</i>	Harmonise methodology and improve data collection	Eurostat
	PCP	<i>Ethical financing</i>	Liaise with private sector, check methodology, improve data comparability	Eurostat
	MNR	<i>Change in status of threatened and/or protected species</i>	Improve data coverage	EEA
	MNR	<i>Effective fishing capacity and quotas, by specific fisherie</i>	Develop methodology and start data collection	DG FISH
	MNR	<i>Structural support to fisheries and % allocated to promote env. friendly fishing practices</i>	Develop methodology and start data collection	DG FISH
	MNR	<i>Emissions of organic matter as biochemical oxygen demand to rivers</i>	Develop methodology for estimations	EEA
	MNR	<i>Index of toxic chemical risk to aquatic environment</i>	Develop methodology for estimations	EEA

Level	Theme	Indicator	Recommended developments	Producer
3	Other level 3 indicators			
	MNR	<i>Percentage of total land area at risk of soil erosion</i>	Develop methodology for estimations	EEA, JRC
	MNR	<i>Percentage of total land area at risk of soil contamination</i>	Develop methodology for estimations	EEA, JRC
	MNR	<i>Fragmentation of habitats due to transport</i>	Develop methodology for estimations	EEA, JRC
	TR	<i>Access to public transport</i>	Develop methodology for estimations	JRC
	TR	<i>Freight transport prices by mode</i>	Develop methodology and start data collection	Eurostat
	TR	<i>Investment in transport infrastructure by mode</i>	Harmonise methodology and improve comparability of administrative data	DG TREN
	TR	<i>People killed in road accidents, by age group</i>	Start data collection	Eurostat
	GG	<i>Share of major proposals in the Commission's Legal and Work Programme for which an impact assessment has been undertaken</i>	Develop methodology and start data collection	DG SG
	GG	<i>Voter turnout in EU parliamentary elections, by gender, by age group and by highest level of education attained</i>	Investigate about possible data sources	Eurostat
	GP	<i>Contribution of the Clean Development Mechanism (CDM) to GHG emission reductions in developing countries</i>	Develop methodology for estimations	EEA