Background document Available in English only

Statistical Commission Forty-fifth session 4 – 7 March 2014 Item 3(c) of the provisional agenda **Programme review: broader measures of progress**

Some national, regional and international efforts and practices in the measurement of sustainable development and human well-being*

<u>Prepared by</u> <u>Friends of the Chair group on broader measures of progress</u>

(February 2014)

* As of 21 February 2014. Member States and regional and international organizations are encouraged and requested to provide information on their efforts and practices for inclusion in this inventory.

Table of Contents

The OECD Better Life Initiative1
Measuring sustainable development and progress in the European Union (EU)4
UNECE " Conference of European Statisticians Recommendations on Measuring Sustainable Development"
Activities under the umbrella of the United Nations Statistical Commission11
Broader Measures of Progress in Australia13
Measuring social progress and sustainable development in France
Measures of social progress and sustainable development in Germany21
Measuring sustainable development and progress in India25
The Italian BES initiative: measuring equitable and sustainable well-being28
The Netherlands: Implementing measure of progress and sustainable development
Towards a better measurement of social progress in Mexico
The Philippines: Experience in Measuring Happiness and Progress
Switzerland: Implementing measure of social progress and sustainable development43
United Kingdom: Implementation of measure of social progress and sustainability45
USA : Compendium of activities for use in measuring sustainability48
Annex: Mapping of indicator projects around the world (work in progress)

The OECD Better Life Initiative

The OECD has been addressing the question of how to measure well-being and societal progress for more than a decade, resulting in the launch of the *OECD Better Life Initiative* in 2011 (<u>http://www.oecd.org/statistics/betterlifeinitiativemeasuringwell-beingandprogress.htm</u>).The *Better Life Initiative* comprises a regularly updated set of well-being indicators, published in the biannual report *How's Life*? (<u>http://www.oecd.org/statistics/betterlife.htm</u>) and an interactive web dissemination application, the *Better Life Index* (<u>http://www.oecdbetterlifeindex.org</u>).

The conceptual framework used by the OECD to define and measure well-being draws on the Stiglitz-Sen-Fitoussi report and distinguishes between current and future well-being. *Current well-being* is measured for two broad domains: material living conditions (income and wealth, jobs and earnings, housing conditions); and quality of life (health status, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security and life satisfaction). *Future well-being* (or *sustainability* of well-being) is assessed through indicators of different types of 'capital' that drive well-being over time, following the approach recommended by the UNECE-Eurostat-OECD Task Force on Sustainable Development.

The measuring of *current well-being* has four distinctive features: First, it focuses on individuals and households. Second, it concentrates on well-being outcomes. Third, it considers the distribution of well-being across population groups, alongside averages. Lastly, it looks at both objective and subjective aspects of well-being.

For the eleven dimensions described above under material conditions and quality of life, headline and secondary indicators have been selected according to standard quality criteria for 34 OECD countries and a number of emerging economies. However, a number of statistical gaps have also been identified and the *OECD Better Life Initiative* includes a number of methodological projects to improve the underlying information base (see http://www.oecd.org/statistics/measuringwell-

beingandprogressresearchanddevelopmentprojects.htm). Key projects and related publications include:

- In the area of material conditions, a joint OECD-Eurostat Expert Group on Disparities in National Accounts was created in 2010, under the auspices of the OECD Committee on Statistics, to look at how information on the distribution of households' income, consumption and wealth can be integrated in the national accounts, on the basis of existing surveys and administrative data. The result of this work has been published in October 2013 (see OECD Statistics Working Papers No52 and No53). In addition, most of the analysis on the material conditions of households at the micro level (e.g. the analysis of poverty, or inequality) is based on income. However, material conditions and their sustainability over time also strongly depend on household wealth and consumption. An OECD Expert Group was set up in 2011 under the auspices of the OECD Committee on Statistics to address these limits. The OECD Guidelines for micro statistics on (http://www.oecd.org/statistics/guidelines-for-micro-statistics-onhousehold wealth household-wealth.htm) and the OECD framework for statistics on the distribution on households income, consumption and wealth were completed and published in May 2013 (http://www.oecd.org/statistics/icw-framework.htm).
- In the area of *quality of life*, in June 2013, the OECD has released *the OECD Guidelines* on Measuring Subjective Well-being, the first set of international guidelines developed under the auspices of the OECD Committee on Statistics aimed at national statistical offices and other producers, and users of survey-based data on subjective well-being (http://www.oecd.org/statistics/guidelines-on-measuring-subjective-well-being.htm).
- In the area of sustainability, the OECD is developing indicators to monitor countries' stocks of natural resources, and has started work on estimating the monetary value of those natural resources that are recognised in the System of National Accounts, in particular land and subsoil assets. This work also feeds into the development of the OECD's Green Growth Indicators (http://www.oecd.org/greengrowth/greengrowthindicators.htm) and is part of the implementation of the UN new System of Integrated Environmental and Economic Accounts (SEEA). Beyond natural resources, data compilation on SEEA also covers key pollutants. Regarding human capital, the OECD has developed experimental monetary estimates of the stock of human capital (see OECD Statistics Working Paper No41), to complement existing indicators that are based on years of schooling or levels of competencies as measured by the recently released results of the Programme for International Assessment of Adult Competencies (PIAAC,

<u>http://www.oecd.org/site/piaac</u>). Finally, the OECD, in collaboration with the European Commission, has just released a report on the conceptualisation and measurement of social capital (see <u>OECD Statistics Working Paper No54</u>, forthcoming).

The well-being measurement framework developed under the OECD Better Life Initiative described above can be considered as universal, *i.e.* as possibly relevant to all countries. It should be viewed as a framework that provides a benchmark for meaningful international comparisons. It is clear, however, that the relative importance of the different dimensions included in the OECD framework will vary across countries and the selection of indicators used to monitor achievements in these dimensions may also differ to reflect specific country conditions, history and challenges. The OECD and the OECD Development Centre are currently preparing a joint report on the development of an adjusted framework to better address the specificities of developing countries.

Measuring sustainable development and progress in the **European Union** (EU)

Already in 1997 sustainable development became a fundamental objective of the EU when it was included in the Treaty of Amsterdam as an overarching objective of EU policies.

The **EU Sustainable Development Strategy (EU SDS)** was one of the first European initiatives addressing progress, well-being and sustainability. The European Council adopted the strategy in 2001 which, following a review in 2005, was renewed in 2006. This **renewed** <u>Sustainable</u> <u>Development Strategy (EU SDS)</u> for an enlarged EU, set out a single, coherent strategy with a stronger focus, a clearer division of responsibilities, wider ownership and broader support, a stronger integration of the international dimension and more effective implementation and monitoring.

The 2006 EU SDS gave the official role to Eurostat to **monitor the progress** made towards the objectives and targets of the strategy through the <u>Sustainable Development Indicators</u> (SDIs). The sustainable development indicator framework is based on **ten themes**, reflecting the key challenges, key objective and guiding principles of the strategy:

- socio-economic development
- sustainable consumption and production
- social inclusion
- demographic changes
- public health

- climate change and energy
- sustainable transport
- natural resources
- global partnership
- good governance.

The majority of these indicators are produced by Eurostat and are result of efforts of the EU Member States and Eurostat in the framework of the **European Statistical System¹ (ESS)**. <u>Monitoring reports</u> on sustainable development are published by Eurostat every two years. Quantitative rules applied consistently across indicators, and visualized through weather symbols, provide a relative assessment of whether Europe is moving in the right direction, and with sufficient haste, given the objectives and targets defined in the strategy.

¹ Eurostat and its partners in the European Statistical System

The data mainly come from the **national statistical offices**, but also from other available sources (Commission services, international administrative sources, non-governmental organizations, research projects, European Environment agency, OECD, International Institute for Democracy, International Transport Forum.) <u>Statistics Explained articles</u> also present each of the ten themes of SDIs.

Eurostat co-ordinates the (annual meetings of) **Working Group on Sustainable Development Indicators**² in order to maintain the exchange of best practices on methodological issues for sustainable development indicators and to further improve the quality framework, indicators, data, and inter-linkages.

In 2009, the <u>Stiglitz-Sen-Fitoussi Commission (SSFC)</u> report and <u>the Communication of the</u> <u>Commission on "GDP and Beyond"</u> addressed the need to improve current information available for **measuring progress, well-being and sustainable development** (overall info on <u>beyond</u> <u>GDP</u>). To answer the challenges presented by these two initiatives and also taking into consideration the <u>Europe 2020 Strategy</u>, the European Statistical System Committee (ESSC) adopted in 2011 a report by the Sponsorship Group, co-chaired by Eurostat and INSEE (France), on <u>'Measuring Progress, Well-being and Sustainable Development'</u>.

The ESS is currently carrying out the **50 specific actions** proposed by the Sponsorship Group on the following **priority pillars**: (see: Eurostat's website: <u>GDP and beyond</u>)

- Household perspective and distributional aspects of income, consumption and wealth;
- Multidimensional measurement of the quality of life; and
- Environmental sustainability.

Further improvements in terms of **'measurement' capacities** on complementing GDP and better measuring progress within the ESS have already resulted inter alia in

 a better use of data on household income, consumption and distribution from the existing National Accounts' data such as <u>Annual adjusted household disposable income per capita</u> <u>in purchasing power standards (PPS)</u> and, <u>European household income by groups of</u> <u>households</u>, where NA household accounts data are matched with micro information available for all Member States ('a- minima exercise');

² With representatives from all 28 Member States, EEA/EFTA countries, Candidate Countries and OECD.

- <u>a first set of Quality of life indicators</u>, agreed in 2013 by the ESS;
- a <u>first EU Regulation on European environmental economic accounting</u> adopted in July 2011 and a second EU Regulation in the process of being adopted;
- <u>a Resource efficiency scoreboard</u>

In February 2013, the Commission adopted a <u>Communication 'A decent life for all: ending</u> <u>poverty and ensuring sustainable development for all'</u>, providing elements for an initial common EU approach to bring together the MDG review, the follow up to Rio+20, and the post-2015 development agenda. It makes proposals for actions on sustainable development following Rio+20, developing SDGs and suggests **priority elements** for a development agenda beyond 2015:

- basic living standards;
- drivers for inclusive and sustainable growth
- sustainable management of natural resources
- equality, equity and justice
- peace and security.

It sets out **principles for a post-2015 overarching framework**, including 'good monitoring of progress' and a 'strengthening of the statistical base'.

UNECE "Conference of European Statisticians Recommendations on Measuring Sustainable Development"

On 12 June 2013, the Conference of European Statisticians (CES) held under the auspices of UNECE in Geneva endorsed a set of recommendations for a framework to measure sustainable development and associated sets of indicators.

This framework is a key step towards harmonising the various approaches and indicators already used by countries and international organisations to measure sustainable development. It is expected to contribute to the UN processes for setting Sustainable Development Goals (SDGs) and defining a post-2015 development agenda.

The Recommendations on measuring sustainable development have been developed by a Task Force set up jointly by UNECE, the European Commission (Eurostat) and OECD. The Task Force was a follow-up to a previous joint UNECE/Eurostat/OECD Working Group which published а report on "Measuring sustainable development" in 2009 (http://www.unece.org/fileadmin/DAM/stats/publications/Measuring_sustainable_development.pd f). The work was undertaken because many countries and organizations had started to measure sustainable development since the Rio Conference in 1992. This led to a variety of approaches and hundreds, even thousands of different indicators used. The 2009 report made a breakthrough to reach a common understanding of the principles of measuring sustainable development. It focused on intergenerational issues using the so-called capital approach, that is, monitoring the resources that the current generation passes on to the future generations.

The work of the joint Task Force also takes into account various initiatives undertaken by the United Nations, Eurostat and the OECD, as well as by individual countries, and provides analyses of current measurement frameworks. Examples include the European Commission's work on 'GDP and beyond', the recommendations of the EU Sponsorship Group on Measuring Progress, Well-being and Sustainable Development, the OECD Better Life Initiative, and the Stiglitz-Sen-Fitoussi report.

Conceptual background

The framework builds on the definition of sustainable development in the Brundtland Report (1987), prepared by the United Nations World Commission on Environment and Development: "Sustainable development is a development which meets the needs of the present generation without compromising the ability of future generations to meet their needs."

In keeping with the Brundtland Report, it also argues that sustainable development is essentially about distributional justice, in both time and space. This means that the distribution of well-being between the present and future generations, as well as differences in well-being between countries are key parameters.

Analytical framework

Conceptually, the measurement framework builds on three dimensions of human well-being:

- human well-being of the present generation in one particular country ('here and now'). While there is no universal consensus on all its dimensions human well-being should be defined according to what people themselves regard as most important in their lives. These dimensions can be measured through a mix of subjective and objective measures.
- well-being of future generations ('later'). The well-being of future generations is dependent on the resources the current generation leaves behind. Assets that should be preserved for future generations fall under four main types of capital: economic, natural, human and social capital. Measures of the current levels of capital and their changes over time show how the choices of the present generation might impact on future generations. Work on the measurement of aspects of human and social capital is currently undertaken by the CES and the OECD. Human capital is defined as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. Social capital includes the trust that is built through the repeated interactions between citizens.
- well-being of people living in other countries ('elsewhere'). The 'elsewhere' dimension captures the ways in which countries affect the human well-being of the rest of the world, for example, through international trade, financial transfers, migration, etc.

Specific themes of sustainable development that should be measured are also identified. **Twenty themes** are distinguished covering environmental, social and economic aspects of sustainable development: subjective well-being, consumption and income, nutrition, health, housing, education, leisure, physical safety, trust, institutions, energy resources, non-energy resources, land and ecosystems, water, air quality, climate, labour, physical capital, knowledge capital, and financial capital. Population has been added as a context indicator.

Indicators

A procedure to derive indicator sets is closely linked to the measurement framework. The proposed three indicator sets include:

- a large set of 60 indicators to provide information about the dimensions of well-being in the 'here and now', 'later' and 'elsewhere'. Several of the indicators relate to distributional issues. The conceptual approach shows to what extent the choices made today may lead to problems 'elsewhere' or 'later'; this approach is rooted into economic theory and is more amenable to economic modelling.
- a large set of 90 indicators selected on a thematic basis which incorporates the 60 indicators and in addition indicators that highlight areas where policy action may be taken to reverse negative (or sustain positive) trends.. For instance, under the theme 'Education', the policy-relevant indicator includes 'the percentage of early school leavers'
- a small set of 24 indicators, to ease communication with policymakers and the general public and ensure a common basis for international comparison. The data needed to produce the indicators in this set are already available today.

The selection of themes and indicators is based on an analysis of the sustainable development themes and indicators currently used in several national and international datasets.

The availability of data for the selected indicators for 46 countries (EU and OECD member countries and Brazil, Russia, India, Indonesia, China, and South Africa) in international databases was also analysed. Most suggested indicators are already produced by national statistical offices and collected by international and supranational organizations such as the United Nations, the OECD and Eurostat. Eight countries are currently pilot testing the indicator sets (Australia, Italy, Kazakhstan, Mexico, Russian Federation, Slovenia, Turkey and Ukraine).

The framework does not propose a one-size-fits-all approach, but rather presents a flexible tool that can respond to a variety of needs. Once the SDGs have been established, the suggested indicators could be aligned with the Goals. In addition, although the proposed sustainability themes are universal, there is room for selecting country-specific indicators.

Way forward

The Recommendations identify a number of measurement issues that will need to be addressed in the future. In particular, more work needs to be done on measuring the international aspects of sustainable development (i.e. the impact of countries on each other) and constructing better indicators in the areas of human, social, financial and natural capital (including better measures of their distribution). Data on time use can be used to measure those non-market activities which are relevant to sustainable development. Under CES, work on measuring human capital (jointly with OECD) and on time-use surveys is ongoing. Stocktaking reports will be prepared on transboundary impacts in the context of sustainable development, measuring sustainable development at different scales (regional, city, company level), and linking subjective and objective indicators.

In the post Rio+20 policy context, the Recommendations are expected to inform the selection of SDGs and to lead to greater harmonisation of national and international sets of sustainable development indicators. The Report of the Friends of the Chair group on broader measures of progress invites the statistical community to take into account the framework developed by the joint UNECE/Eurostat/OECD Task Force which is based on internationally agreed normative standards.

The "CES Recommendations on measuring sustainable development" are available at: <u>http://www.unece.org/stats/sustainable-development.html</u>

Activities under the umbrella of the United Nations Statistical Commission

Monitoring the MDGs

The United Nations Inter-Agency and Expert Group on MDG Indicators (IAEG-MDG), consisting of international agencies, regional organizations and national statistical offices, has been responsible for the global and regional monitoring of progress towards the MDGs. As mandated by the United Nations Statistical Commission (UNSC), the IAEG-MDG also helps to improve data and methodologies for the monitoring of the MDGs and define priorities and strategies to support countries in data collection, analysis and reporting on MDGs. The IAEG-MDG has worked efficiently over the last ten years to ensure that the monitoring of development goals be firmly grounded on statistical sound principles and to provide the latest and most reliable data from official statistical sources.

Adoption of the System of Environmental-Economic Accounting (SEEA)

Twenty years ago, Agenda 21 identified the need for a systems approach to monitoring the transition to sustainable development and proposed a specific solution: the development of integrated environmental and economic accounts. Over the past two decades, the international official statistics and accounting communities have responded to this need through a rigorous and global process to develop a System of Environmental-Economic Accounts (SEEA) within the broader set of international statistical standards.

In 2013, the United Nations Statistical Commission adopted the flexible and modular implementation strategy of the SEEA 2012 Central Framework and tasked the UNCEEA, with the United Nations Statistics Division as Secretariat, with its execution. The SEEA 2012 Central Framework is the international statistical standard, on par with the System of National Accounts and describes a multi-purpose conceptual framework for recording interactions between the economy and the environment. It used for economic data, for organising information on (a) individual environmental assets (such as water resources, timber resources, mineral and energy resources, aquatic resources, land and soil resources); (b) the flows of natural inputs and

residual flows (e.g. emissions) between the environment and the economy and of products within the economy (for example, flows of energy, water and materials); and (c) economic transactions that can be considered environmental (such as environmental protection expenditure, environmental taxes and environmental subsidies). Approximately 50 countries have implemented various components of the SEEA 2012 Central Framework.

Recognizing the need for a consistent and complementary methodology for measuring ecosystems in a holistic manner and their linkages to economic and human activity, the SEEA 2012 Experimental Ecosystem Accounting (EEA) extends the accounting principles of the SEEA 2012 Central Framework to provide guidelines for recording both the material and the non-material benefits from the use of ecosystem assets (for example, benefits from the ecosystem services of water purification, storage of carbon, and flood mitigation). Selected modules of ecosystem accounting, in particular focusing on the measurement of carbon, nutrients, biodiversity, ecosystem services, and ecosystem condition, will provide, in due course, important indicators for policy analysis that complement the information from the SEEA 2012 Central Framework.

Broader Measures of Progress in Australia

The Australian Bureau of Statistics is involved in a number of initiatives which aim to provide measures of progress in Australia that go beyond the traditional economic measure of Gross Domestic Product (GDP).

Measures of Australia's Progress

Since its first release by the Australian Bureau of Statistics in 2002, <u>Measures of Australia's</u> <u>Progress (MAP)</u>¹ has presented a broad assessment of national progress. MAP presents a digestible suite of indicators grouped into four broad domains: society, economy, environment and governance to help Australians answer the question, 'Is life in Australia getting better?'.

A decade on from MAP's first release, the ABS undertook a comprehensive review to ensure MAP continues to measure progress in those aspects of life that matter most to Australians. In 2011-12, the ABS undertook a broad-ranging consultation that asked Australians 'What is important to you for national progress?'. Viewpoints were gained through multiple channels such as workshops, social media platforms and expert panels. Participants were drawn from many sectors of Australian society, including the general public, community, government, not for profit, business and academia. The results that emerged from this process formed the basis of an aspirational framework which was presented in 'Aspirations for our Nation'². MAP 2013 uses a refreshed conceptual framework which was built around these aspirations. 'Aspirations for our Nation' also provides an overview of domestic and international progress initiatives.

The ABS acknowledges that progress is multidimensional, and therefore MAP presents information in such a way that readers can consider the relative importance and interrelationship of each aspect of progress, rather than presenting a summary index. To assist readers in gaining a quick 'at a glance' view of recent progress, MAP presents a 'traffic light' dashboard of headline progress indicators on the MAP home page (shown in Figure 1 below).

¹ Australian Bureau of Statistics, *Measures of Australia's Progress, 2013* (ABS cat. no. 1370.0) <u>http://www.abs.gov.au/ausstats/abs@.nsf/mf/1370.0</u>

² Australian Bureau of Statistics, *Measures of Australia's Progress – Aspirations for our Nation: A Conversation with Australians about Progress, 2011-12* (ABS cat. no. 1370.0.00.002) <u>http://www.abs.gov.au/ausstats/abs@.nsf/mf/1370.0.00.002</u>

The dashboard is arranged into four broad areas of life - society, economy, environment and governance. Each of these areas is made up of themes, which collectively summarise the aspirations into themes that Australians told us were important for progress in these four areas; for example, health (society), opportunities (economy), a healthy environment (environment), and trust (governance). MAP is presented in such a way to encourage people to make their own assessment of overall progress, based on things that are important to them.

Progress for each theme is shown by a green tick (for progress), a red cross (for regress), or an orange line (for little or no change). Progress is measured by comparing two points in time; the most recent point where data is available, with an earlier period (a decade before, if available data allows). A blue question marks show where there is no current measure and highlights where we may be able to show indicators in the future.

Figure 1 - Measures of Australia's Progress 2013 "dashboard" of headline progress indicators

e MAP Dashboardby status What is MAP? - video Summary Brochure				
S	ociety	E	conomy	
~	Health	\checkmark	Opportunities	
~	Close relationships	\checkmark	Jobs	
~	Home	\checkmark	Prosperity	
~	Safety	X	A resilient economy	
	Learning and knowledge	\checkmark	Enhancing living standards	
~	Community connections and diversity	~	Fair outcomes	
? ?	A fair go Enriched lives	\checkmark	International economic engagement	
E	nvironment	G	overnance	
?	Healthy natural environment	\sim	Trust	
~	Appreciating the environment	?	Effective governance	
-	Protecting the environment	\checkmark	Participation	
		?	Informed public debate	
×	Sustaining the environment			
×	Healthy built environments	?	People's rights and responsibilities	
×			People's rights and responsibilities	
2	Healthy built environments		People's rights and responsibilities	
k k k k k k k k k k k k k k k k k k k	Healthy built environments Working together for a healthy environment	?	People's rights and responsibilities	
~	Healthy built environments Working together for a healthy environment do these symbols mean? The headline progress indicator for this theme has st	nown progress.	People's rights and responsibilities	
Vhat	Healthy built environments Working together for a healthy environment	nown progress.		

System of Environmental-Economic Accounting (SEEA)

The ABS has undertaken work in a range of areas to develop broader measures of progress. For example, the ABS has and will continue to contribute to the international development of the System of Environmental-Economic Accounting (SEEA) and work towards its implementation in Australia and the region.³ The ABS has published two information papers exploring how SEEA can be used to improve decision making. The ABS currently publishes environmental economic accounts according to the SEEA framework: for Energy (ABS cat. no. 4604.0), Water (ABS cat. no. 4610.0), Water (ABS cat. no 4602.0.55.005) and Land (ABS cat. no. 4609.0.55.002)⁴. In April 2014, the ABS will release the first issue of the Australian Environmental-Economic Accounts. This release will bring all of the ABS environmental accounts together in one place to deliver a broad and cohesive picture of the environmental stocks and flows of relevance to the Australian economy and society.

National Sustainability Indicators

The ABS has worked closely with a number of Australian government departments to assist in the development of robust indicator sets which present a broad view of progress through various lenses. For example, the ABS provided significant support to the Australian Department of the Environment to assist in development of a robust set of National Sustainability Indicators for Australia and in the preparation of the Sustainable Australia Report 2013⁵.

⁴ The most recent issues of these accounts are: Australian Bureau of Statistics, Energy Account, Australia, 2011-12 (ABS cat. no. 4604.0) <u>http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4604.0</u>

Australian Bureau of Statistics, Water Account, Australia, 2011–12 (ABS cat. no. 4610.0) http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4610.0

Australian Bureau of Statistics, Waste Account, Australia, Experimental Estimates, 2013 (ABS cat. no 4602.0.55.005) http://www.abs.gov.au/ausstats/abs@.nsf/mf/4602.0.55.005

Australian Bureau of Statistics, Land Account: Victoria, Experimental Estimates, 2012 (ABS cat. no. 4609.0.55.002) http://www.abs.gov.au/ausstats/abs@.nsf/mf/4609.0.55.002

³ ABS, *Completing the Picture: Environmental Accounting in Practice, May 2012* (ABS cat. no. 4628.0.55.001) <u>http://www.abs.gov.au/ausstats/abs@.nsf/mf/4628.0.55.001</u>

ABS, Information Paper: Towards the Australian Environmental-Economic Accounts, Mar 2013 (ABS cat. no. 4655.0.55.002) <u>http://www.abs.gov.au/ausstats/abs@.nsf/mf/4655.0.55.002</u>

⁵ National Sustainability Council, *Sustainable Australia Report 2013, Conversations with the future*, DSEWPaC <u>http://www.environment.gov.au/resource/sustainable-australia-report-2013-conversations-future</u>

Measuring social progress and sustainable development in **France**

France has been addressing the question of sustainable development for more than a decade. But its involvement in measuring economic performance, social progress and sustainability has received a new impetus with the publication of the ground-breaking report of the Stiglitz Commission, which was set up by the President of the French Republic. Producing new indicators in an harmonious international framework that takes better account of households preoccupations, quality of life, inequalities, sustainable development and the environment has become a big challenge to the French Official Statistical System. A large scale programme has been organized around four themes: refocusing national accounts on Households, measuring quality of life, developing environmental indicators and, for all above domains, measuring inequalities. This work aroused increased public interest and was the subject of a major communication campaign, particularly on the Insee website

Making better use of the indicators produced by the National accounts

While remaining in the existing framework of the National accounts, Insee has put in its publications greater emphasis on household perspectives and the variables of the household accounts. Greater visibility has also been given to adjusted disposable income and effective consumption, aggregates that include direct expenditure by public authorities, such as health and education. And greater attention was paid to describing household assets in the annual publication concerning the "national balance sheet".

To take into account the services provided by the family and not taken into account in calculating GDP because they are not purchased, <u>broader indicators</u> of the standard of living, taking into account this domestic production have been calculated, based on the Time Use Survey conducted in 2010.

Measuring disparities between households in the national accounts framework: income, consumption, savings and assets

In order to have a better appreciation of household well-being in its monetary dimension, the INSEE decided in 2007 to enrich its national accounts by crossing household accounts with six major household surveys, in order to get information on the disparities between households.

Starting with enhanced income and consumption measure coming from the National accounts fully taking into account the enhanced consumption of public services – health, education, and social action – evaluated at their market value, this produced <u>household accounts</u> per quintile for income, per socio-occupational category, per age of head of household, per type of family or the urban or rural character of the place of residence, affording a better appreciation of inequalities between households. Following on from this work, 2012 saw the inclusion of <u>assets accounts</u> with the Wealth Survey. Work on the breakdown of the household account into categories will be continued with an analysis of the growth in purchasing power for each of these categories.

Measuring quality of life in its objective and subjective aspects

Many indicators that belong to the multidimensional framework recommended by the Stiglitz report can be calculated from existing surveys, such as the European Statistics on Income and Living Conditions and French Safety Surveys. However in order to shed light on subjective wellbeing, several experiments have been conducted. First, Insee has added some new questions to the survey on living conditions. These questions aim at assessing global satisfaction on a scale from naught [0] to 10 and relate to the following five items: dwellings, job security (if employed), leisure, relations with close relatives, global satisfaction drawn from current life. A selfadministrated questionnaire has also been introduced on subjective well being. It provides information on feelings about the future, attitudes toward risk and comparisons with other people. Second, in the 2009 Time Use survey, questions were introduced to grade the quality of time spent on each activity of the respondent's ten-minute interval diary, on a scale from -3 to +3. In addition, INSEE has also launched in 2011 an innovative experimental survey, which aims at exploring in a single statistical source, the different dimensions of both objective and subjective Quality of Life as highlighted in the Stiglitz Report. It allows statisticians to study, at the individual level, the accumulation of deprivations. More importantly, it also facilitates a better understanding of the links between objective determinants of Quality of Life (such as health, education or marital status) and subjective well-being. The first results were published in 2012 and in 2013.

INSEE intends to update regularly these new indicators of quality of life in order to build time series. Such time series are necessary for policy makers not only to obtain a measurement of the evolution of quality of life in our society, but also to assess causality links. For instance, the links observed between the degree of social ties and global life satisfaction could a priori either reflect causal effects or, more simply, long lasting differences between individuals. To address

these questions of durable differences between individuals, same people have to be followed over time, in order to see whether, for instance for a given individual, sudden isolation really results in a reduction in his well-being. Such investigations are made possible with the use of panel data collected through the French survey, and tend to show that the link between social ties and level of life-satisfaction is a causal link indeed. Results are going to be presented in the Economie et Statistique collection in 2014.

Measuring carbon footprint of final demand of households

To better take into the household perspective concerning the environment pressure, <u>the carbon</u> <u>footprint</u> has been published on an annual basis (last data available 2011) The carbon footprint measures greenhouse gas emissions caused by the production of goods consumed in France, regardless of the location of the production site. In the context of a global economy, this indicator is essential in order to appreciate the global impact of a country's consumption on climate, a worldwide public good. In the same way, <u>the household water footprint</u> is also calculated. It is planned to extend this concept to other pollutants or resources.

A sustainable development strategy and its indicator set

France adopted for the fist time in 2003 a National Sustainable Development Strategy 2003-2008 (NSDS) and a dashboard to monitor it. As intended under the Grenelle Environment Planning Act, a <u>new National Sustainable Development Strategy</u> was adopted for the 2010-2013 period. Drafting of the strategy involved numerous public and private sector partners. To facilitate the monitoring of the NSDS and contribute to its wide dissemination, indicators were chosen within the framework of collaboration organized in accordance with the Grenelle's model of governance by stakeholder groups. A commission constituted in line with this principle worked through the winter of 2010-2011 to produce the scoreboard. This open and lively collaboration conveyed the importance of widespread uptake of the sustainable development indicators and of their potential role in the public debate. The indicators were selected to illustrate the key issues for sustainable development in response to the NSDS's nine key challenges, to be consistent with the European headline indicators, be applicable to infra national territories, provide information on breakdown by social category, income class, age or gender.

There is an on going work for the adoption of a new strategy for the period 2014-2020: a national strategy for an ecological transition towards sustainable development

Numerous works in perspective

Along with its European partners, France is going to implement the guidelines established by a sponsorship group that it co-chaired together with Eurostat. In 2013, the survey of household living conditions and income has been enriched with a harmonized European block in order to measure satisfaction in life globally and in its different dimensions. The wealth survey, which had already been adjusted with over sampling of high incomes in order to give a better evaluation, will use panels to trace the progress of households and will be conducted more frequently (every 3 years instead of about every 10 years). Special attention will be paid to measuring inequalities and identifying populations encountering the most difficulties. Thus, each year, indicators of poverty in living conditions will be published nine months after the data collection. Indicators of inequality in income and purchasing power, taking into account taxes and social benefits will be disseminated at local level. An analysis of the characteristics and trajectories of homeless people and an evaluation of unsatisfactory housing are also planned. Work on the breakdown of the household account into categories will be continued with an analysis of the growth in purchasing power for each of these categories.

For more information

1- All French publications further to the Stiglitz Commission can be consulted on the INSEE website (www.insee.fr) in the "Economic performance and social progress" thematic report http://www.insee.fr/en/publications-etservices/ default.asp?page=dossiers_web/stiglitz/performance_eco.htm.

2- The indicators of the French Sustainable development strategy can be consulted on the INSEE website (www.insee.fr) in the "Sustainable development indicators" thematic report <u>http://www.insee.fr/en/publications-et-services/default.asp?page=dossiers_web.htm</u>

Measures of social progress and sustainable development in **Germany**

1. Introductory note

For Germany, there exist several initiatives regarding the monitoring and measurement of societal progress at all government levels. Especially for the area of measuring progress and major sub-areas such as "sustainability", "well-being" or "quality of life", politics initiated an intensive exchange of information in all phases of the design and co-ordination process in order to achieve networking with all parties involved.

In addition to progress measurement as an overall approach, there are more partial approaches: particular attention is often given to less privileged groups of the society and, more specifically, to their participation and integration in the society, economy and politics such as gender equality or the integration of persons with a migration background. All those measures have as far as possible been coordinated with corresponding initiatives at supranational and international levels, in particular of the European Union, the OECD and the United Nations; in many cases there are also parallels at the regional level.

All approaches illustrate that (1) comprehensive and integrated approaches have priority, (2) an output-oriented or outcome-oriented perspective is aimed at and (3) fact-based, regular monitoring or, in part, even performance control is applied, often on the basis of data from official statistics.

2. Cross area approaches to measuring progress

2.1 Sustainable Development in Germany

The national strategy for sustainable development was defined by the Federal Government in 2002 and is regularly updated, based on the knowledge that "only if all those participating in economy and society, if citizens make the subject their own affair, will we achieve success."

..."For this reason public discussion and collaboration with and between the social participants are key elements of the German Federal Government's Strategy for Sustainability".¹

A major element of the national sustainability strategy is a system of 21 indicators meant to describe in sustainability terms the developments in the society, the economy and the environment. The indicators are grouped as follows: intergenerational equity, quality of life, social cohesion, and international responsibility. They are mainly based on data of from official statistics in Germany. A specific characteristic of sustainable development indicator reporting in Germany is that most indicators have quantitative targets and that reporting by the Federal Statistical Office includes information on target achievement. The Federal Government's latest progress report on the national sustainability strategy was submitted in 2012. One of its elements is the Indicator Report 2012, which is compiled independently by the Federal Statistical Office (Destatis)² and is regularly updated at two-year intervals (next issue 2014).

2.2 Study Commission of the German Parliament on Growth, Well-being and Quality of Life

At the end of 2010, the German Bundestag, the Federal Parliament, established a Study Commission (Enquete Kommission) dealing with the subject of growth, well-being and quality of life.

The Study Commission's final report was adopted by the Parliament in June 2013. On the issue of measuring progress and well-being the Commission proposed developing a set of indicators - named *W*³*indicators*. It consists of ten headline indicators covering three dimensions, namely material well-being, social inclusion and environment. The Commission proposes these 10 indicators to be observed and commented every year: (1) GDP per person and GDP change rate on the previous year per person, (2) employment rate, (3) upper secondary attainment, (4) greenhouse gas emissions national, (5) income distribution P80/P20, (6) life expectancy, (7) nitrogen surplus national, (8) general government debt as % GDP, (9) voice and accountability (World Bank), (10) bird index. This set of ten headline indicators shall be complemented by nine so-called "warning lights": (a) net fixed capital formation as % GDP, (b) under-employment rate, (c) greenhouse gas emissions global, (d) wealth distribution P90/P50, (e) participation in formal

¹ See The Federal Government "Perspectives for Germany, Our Strategy for Sustainable Development", <u>http://www.bundesregierung.de/Content/EN/StatischeSeiten/Schwerpunkte/Nachhaltigkeit/Anlagen/strategiepapier-nachhaltigkeit.pdf?_blob=publicationFile&v=1</u>, p. 54

² Indicators - Sustainable development indicators - Federal Statistical Office (Destatis)

and non-formal education, (f) nitrogen surplus global, (g) credit to GDP gap, property price gap and equity price gap, (h) healthy life years, (i) bird index global. And a last indicator called "Hinweislampe" (information light) is proposed to remind that also non-market production contributes in a significant share to material well-being of the society.

3. Area-specific approaches to well-being and quality of life

3.1 Material prosperity and social security

Germany's broad approach on poverty and wealth according to the concept of Nobel Prize winner Amartya Sen creates a connection with other fields of activity regarding wellbeing and quality of life, especially regarding education and training or specific societal groups.

Following a decision of the parliament, i.e. the German Bundestag, a relevant report has regularly been published since October 2001 in the middle of any legislative term. The latest report was submitted in March 2013 in close co-operation with the Federal Statistical Office.³ In the report, all policy fields concerning the reduction of poverty and social exclusion in Germany are analyzed based on the multidimensional poverty concept agreed upon in the European Union.

In addition the system of social reporting in official statistics provides a wide range of comparable data on the Federation and the Länder levels and partially for deeper regional levels regarding minimum social security as well as poverty and social exclusion in Germany. The selection of indicators is based on the recommendations of the European Union.⁴

3.2 Health

Federal Health Reporting (GBE) continuously supplies up-to-date data and information on the German population's state of health and the country's healthcare services ranging from diseases, symptoms and risk factors to subjective well-being and health-related quality of life, utilization of preventive and healthcare services as well as the structures and costs of healthcare system. Federal Health Reporting is networked in many ways with health reporting at both the federal-state and the European level.

³ <u>BMAS - Publications - The German Federal Government's 4th Report on Poverty and Wealth, Executive Summary</u> (englisch - Kurzfassung)

⁴ Further information and direct access to the indicators and data tables is available at <u>Sozialberichterstattung</u> - <u>Startseite</u>

Federal Health Reporting is carried out by the Robert Koch Institute (RKI) and the Federal Statistical Office: RKI is responsible for the content, conceptual design and further development of reporting. Federal Statistical Office focuses on the collection, processing and provision of data and makes the "Information System of the Federal Health Monitoring (IS-GBE)" available to the public as an online database and as a platform for GBE publications.⁵

3.3 Education

Education in the broader sense is about people's opportunities to acquire cultural traditions and knowledge, to develop their personality and thus to responsibly shape their life in a partnership or family, to meet occupational requirements and to actively participate in social and political life. This is the approach of an overall system of education monitoring, which has been developed for Germany by politicians and administrators responsible for education. The original indicator model of 2005 comprised 179 indicators. Subsequently, and in line with the fields of political action, they have been limited to the central indicators which allow showing trends.⁶

International reports, especially those of the OECD, the European Commission and the UNESCO are important points of reference and benchmarks for national reporting. For example, a joint publication "international education indicators in a comparison between Länder" for selected indicators of the OECD publication "Education at a Glance" shows a breakdown by Länder.

3.4 Gender equality

In 2007 the Conference of Länder Ministers for Gender Equality and Women adopted the introduction of a harmonized indicator system for the Länder in Germany to show the status and trends of equal opportunities policy in an atlas. The focus here is on (1) participation in politics, science and research, (2) education and training, (3) employment and income of women and men in Germany. Another major item is life in general, with a focus on elderly people in one-person households and life expectancy.⁷

⁵ <u>The Federal Health Monitoring System</u>

⁶ The National Report on Education - Deutscher Bildungsbericht

⁷ The first regionalized publication on gender equality ("Gender Equality Atlas for Germany") was published by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth in 2010. This publication is also available in English. The second and updated edition was published in January 2013, see also <u>BMFSFJ - Publikationsliste</u>

Measuring sustainable development and progress in India

In India there are no separate indicators to measure sustainable development and human wellbeing. However, there are a number of indicators which are compiled and used for various purposes. While the various national income indicators are widely used to measure the state of the economy, the social development is measured and monitored with the help of several social sector indicators compiled by the respective line ministries.

The country report on MDGs is regularly brought out by India. The indicators as adopted by India for MDGs are compiled and monitored. In the Indian context, the rates of changes in statistical terms are quite reflective of the reality on the ground. As a result, the new sets of statistics for the MDG indicators are showing up changes happening on the ground in respect of different aspects of human well-being. There are number of statistical instruments such as consumer expenditure survey, poverty estimates, national family health survey, district level household and facility survey, etc., the outcomes of which are tracked to measure the development process.

Environment being one of the key elements of sustainable development, environmental parameters like forest cover, tree cover, afforestation, deforestation, etc. are tracked on a regular basis. The Central Statistics Office (CSO) under the Ministry of Statistics and Programme Implementation of Government of India has been bringing out a Compendium of Environment Statistics every year since 1997 following the United Nations Framework for Development of Environment Statistics (UNFDES) encompassing the five core parameters viz. biodiversity, atmosphere, land/soil, water and human settlements. India has also actively participated in the recently completed process of FDES by UNSD.

As the subject climate change has been gaining importance, CSO constituted an Expert Committee in 2009 to develop a framework for Climate Change Statistics. The framework was finalized after consultations with the concerned Ministries and also getting inputs through a Workshop organized for discussing the framework. The CSO is presently working on bringing out the first publication on Climate Change Statistics. A number of schemes and programmes are run by the Government to mobilize and develop capacities on community institutions to utilize natural resources in a sustainable manner. There are also efforts to incorporate sustainability in the rural development process. Besides having environmental protection programmes, the country has been making fast progress in increasing its renewable energy capacity. The statistics generated on the benefits and impact of such programmes and also programmes of various line ministries having linkages to sustainable development are in some sense measures of sustainable development.

DevInfo is a database system for monitoring human development. With the primary objective of promoting common accessibility of data and knowledge on the key development outcomes in India in order to enhance effective planning and monitoring of developmental activities, CSO in collaboration with UNICEF India has developed its own adaptation by the name DevInfo India. So far three adaptations have been brought out by CSO, the latest being in December 2011 which contains 524 indicators and approximately 1.2 million records. CSO envisages for a mechanism of concurrent updation of the DevInfo database coinciding with the release of the data by data producing Ministries and plans to promote the web-enabled version of DevInfo India for its accessibility by the user line Ministries of Government of India through their respective portals. There are also DevInfo India adaptations by other Ministries/State Governments like CensusInfo, CrimeInfo, MP DevInfo, etc.

India has taken several initiatives in environmental accounting. The country had commissioned studies related to forest, water, air, land and sub-soil resources between 2000 and 2006 and later constituted a Technical Advisory Committee to prepare a synthesis report of the studies. Subsequently, an Expert Group was constituted in August 2011 to develop a framework of green national accounts and to prepare a road map for India to implement the framework. The Group submitted its Report in March 2013. The Report's central conclusion is that economic evaluation has to be based on a comprehensive notion of wealth comprising reproducible capital, human capital and natural capital. An International Workshop was organized in Delhi in April 2013 to discuss the Report.

Thus the subject of sustainable development is gaining importance in India and relevant statistics on related matters are helpful in monitoring the progress.

For more information

MDGs India Country report 2014 http://mospi.nic.in/Mospi_New/upload/mdg_2014_28jan14.pdf

SAARC Development goals- India development report 2013 <u>http://mospi.nic.in/Mospi New/upload/SAARC Development Goals %20India Country Report</u> _29aug13.pdf

DefIndo India, a database for monitoring human development http://www.devinfoindia.org/

Compendium of environment statistics http://mospi.nic.in/Mospi New/upload/compendium 2013 13feb14.htm

Climate change statistics http://mospi.nic.in/Mospi_New/upload/climate_change_29nov13.pdf

The **Italian** BES initiative: measuring equitable and sustainable well-being

In line with the most advanced experiences that are being developed all over the world and as recommended by the Stiglitz Commission, in December 2010 the National Council for Economics and Labour (<u>CNEL</u>) and the Italian National Institute of Statistics (<u>Istat</u>) committed themselves to provide Italian society with a measurement tool for progress in Italy. The interinstitutional initiative is called Equitable and Sustainable Well-being" (Benessere Equo e Sostenibile - BES) and aims at giving the country a shared perspective on the economic, social, and environmental conditions and their distribution within and between generations. In particular, the initiative's objectives are to:

- 1. develop a shared definition of progress in Italian society, by defining the most relevant economic, social and environmental domains;
- 2. select a set of high-quality statistical indicators that are representative of the different domains;
- communicate the results of this process, informing citizens of indicator values in the most thorough possible way. The set of indicators defined is in fact intended for a broad public audience as well as for policy users.

BES framework represents an initiative of great scientific importance, which places Italy in the forefront of the international panorama for the development of well-being indicators going "beyond GDP". In order to guarantee it a strong legitimacy, the initiative is based upon a process involving all major representatives of Italian civil society through the institution of a Steering committee and a Scientific commission, and the promotion of citizens' consultation instruments.

The Steering Committee has the mandate to select the relevant domains for well-being. It is jointly coordinated by CNEL and Istat and sees the participation of trade associations, trade unions and relevant third sector organizations such as women, environmental and consumers organizations or broad civil society platforms. The members are partly coming from CNEL and partly selected among organizations which are either under-represented within the council or

which had a previous experience on the issue. The Committee selected 12 domains (Health, Education and training, Work and life balance, Economic well-being, Social relationships, Policy and institutions, Security, Subjective well-being, Landscape and cultural heritage, Environment, Research and innovation, Quality of services) representing the initial framework of analysis for well-being in Italy. On this basis operated the Scientific Commission which is hosted by ISTAT and composed of more than 80 experts from academia, research centers and Istat itself. It selected 134 indicators which are generally available at regional level and that can be disaggregated by gender and age. The Commission treats separately the well-being indicators, mainly focusing on outcomes, their distribution among social groups, and the aspects of economic, social, and environmental sustainability which will be addressed at a next stage. The number of indicators in the final set is small enough to represent the complexity of phenomena and facilitate their understanding by non-experts. Indicators were discussed with the Steering Committee and finally approved by the CNEL Assembly. The first BES Report was published in March 2013 along with the dissemination and data visualization tools. A second BES Report is foreseen for March 2014.

The whole process was supported by citizens and civil society consultation activities through a national survey, an online questionnaire, an open blog and several territorial meetings. An initial consultation stream was represented by the inclusion of a specific question in the 2011 Multipurpose Survey, 'Aspects of daily life', which is submitted to 24,000 families (54,000 individuals). The question tried to assess the importance citizens attribute to different dimensions of wellbeing. Citizens have been asked to assign a score from 0 to 10 according to the increasing 'importance for wellbeing and life' people give to several well-being aspects. Then, Italian citizens were able to express their priorities on the 12 domains of well-being that are most relevant for individuals and society through the initiative's website www.misuredelbenessere.it. The website offered two major consultation tools: a short questionnaire and a blog. In the questionnaire citizens were asked to give their opinion on the indicators to be used for measuring wellbeing, on the 12 selected domains, and on the relationships between then and the definition of public policies. Through the blog a more indepth discussion was possible, opening a national debate among experts, practitioners, and anyone interested in the issue who could in this way contribute to defining relevant dimensions to monitor progress and wellbeing in Italy. During the spring of 2012, when a first set of indicators were published, conferences in all Italian regions have been organized to debate the measurement proposal, and auditions of relevant stakeholders have been organized to finalize the tool. The framework of the BES has been enriched and enforced by the debate and by the contribution of all and also the online consultation has been very useful to identify point of weakness (such as the quality of food) that were not identified by the Steering Committee.

The project has its own website <u>www.misuredelbenessere.it</u>. A special investment has been made to better communicate the results of the project. Online is available:

- the full report (IT)
- the synthesis of the report and the description of all domains and indicators (IT, ENG)
- The full set of time series <u>tables</u> by region, sex and age and a <u>platform</u> for the graphical and numerical analysis of the Bes data

The BES initiative implied a big methodological investment for the theoretical definition of the Bes framework and the development of new indicators using the existing data sources. Moreover further work is in progress in order to 1) elaborate composite indicators for each domain; 2) assess well-being inequalities; 3) define and measure well-being sustainability; 4) apply the BES framework at local level.

1) As concerns composite indicators it has been decided not to aggregate into a unique measure of well-being but to carry out a number of experimentations at domain level in order to assess relevance and robustness of different methodologies on restricted groups of indicators.

2) Well-being inequalities are assessed through both measures of distribution among individuals and the breakdown of indicators for different groups (e.g. territories, gender, age, education, income, nationality).

3) The measurement of well-being sustainability represents the major challenge for the BES Scientific Commission. The set of indicators for its assessment will be based around the analysis of micro and macro vulnerabilities (combining capital approach, risk factors analysis and forecasting models) and of the interactions among domains.

4) Finally, CNEL and Istat, together with the National Association of Italian Municipalities (ANCI), are exploring the extension of the BES framework at local level through the <u>URBES project</u>. This projects aims at defining a set of well-being indicators for the 15 biggest Italian cities. A first URBES report has been published in June 2013 but it represents only an initial step. The project

has close connections with the stream of research and work on "smart communities", promoted by the Italian Government, where smartness is seen as a collection of tools for fostering citizens' quality of life.

The Netherlands: Implementing measure of progress and sustainable development

Statistics Netherlands has a long history in this field dating back to the work on the sustainable national income (SNI) by Roefie Hueting in 1970s. In the 1990-2000s Statistics Netherlands focused attention on the developed of environmental accounts and has played a prominent role in the international work on the SEEA. The most recent generation of "Beyond GDP" initiatives started back in 2007 when work started on the "Sustainability Monitor for the Netherlands". Two editions have been published so far (CBS, 2009 and CBS, 2011). In the last installment, a book, short brochure and website were launched simultaneously to maximize the societal impact of the report. This work is jointly carried out with three policy institutes with expertise on the economic developments, the environment and social aspects. The Dutch government has requested that the book and brochure be updated once every two years. The website visualisation will be updated every 6 months.

Statistics Netherlands uses a measurement approach that is based on the work joint UNECE/Eurostat/OECD Force for Measuring Sustainable Development (TFSD). The TFSD was lead by Rutger Hoekstra and Jan Pieter Smits of Statistics Netherlands. The final report was endorsed by the members of the Conference of European Statisticians (CES) in June of 2013. The TFSD conceptual framework uses the Brundtland report definition of SD and is also consistent to the Stiglitz report. It splits SD into human wellbeing in the "here and now", "later" and "elsewhere". However, the system is also flexible in that the indicators can also be arranged thematically (20 SD themes are defined by the TFSD). The TFSD system therefore caters to number of perspectives in the measurement of SD.

The Dutch system includes 56 indicators in the conceptual categorisation ("here and now"/"later"/"elsewhere") and 129 indicators in the thematic categorisation to measure sustainable development (CBS, 2011; Smits and Hoekstra, 2011).

Figure 1 presents the visualisation of the conceptual categorisation of SDIs. The table is split into the 'here and now' (quality of life), 'later' (resources) and 'elsewhere' (Netherlands in the world). Each of these three dimensions is divided into sub-sections which may have a number of

indicators. For each of the indicators a portion of the pie charts is given a traffic light colour (of course, red=bad, green=good and orange=neutral). The pie charts on the left show the trend in indicators (2000 to present) and the ranking of the Netherlands in the EU27 in the pie charts on the right.

The visualisation works well to make clear the trade-offs between the 'here and now', 'later' and 'elsewhere'. The 'quality of life' indicators are predominantly green while many indicators for 'later' (in particular natural capital, human capital and social capital) and 'elsewhere' are yellow or red. The visualisation therefore helps to communicate the message that the developments in current well-being are unsustainable because of their repercussion for future generations and other countries.

Figure 2 provides a summary of the thematic categorization of indicators so that policy makers can see which societal domains are most problematic (these are indicated with the exclamation marks). Fourteen themes are distinguished (some of the TFSD themes are combined if policy makers thought it was appropriate). The pie charts are constructed in the same way as for the conceptual categorisation.

The web-based visualisation allows users to access the data that underlie the pie charts. For example, if a user clicks on 'education and knowledge' in figure 2, (s)he will be taken to figure 3. For each of the indicators of this theme, the development if provided in a graph on the left and the international rank of the Netherlands is provided on the right.

More information can be found on the website:

http//www.cbs.nl/en-

<u>GB/menu/themas/dossiers/duurzaamheid/nieuws/default.htm?Languageswitch=on</u>.



Figure 1. Visualisation- The Netherlands (Conceptual categorisation)


Figure 2. Visualisation- The Netherlands (Thematic categorisation)



Figure 3. Visualisation- The Netherlands (Indicator details)

Towards a better measurement of social progress in **Mexico**

If the goal of progress is to increase social welfare, then it is necessary to measure what happens to social welfare, including the economic sphere but not restricted to it. Thus, in line with what the Stiglitz-Sen-Fitoussi Commission proposed, beyond the measure of material progress, it is important to consider quality indicators of life from both, an objective and a subjective perspective, as well as sustainability indicators that monitor the evolution of productive stocks that society has for its maintenance and reproduction, such as physical capital, human capital, natural capital and social capital.

This objective has been a centerpiece from the OECD World Forum on Statistics, Knowledge and Policy that took place in Palermo, Istanbul, Busan and New Delhi. Moreover, the publications How is Life? and the Better Life Index provide a framework that can be adopted and adapted to reflect progress in specific countries welfare.

Thus, in the case of Mexico, INEGI has launched a line of research to offer the public a set of indicators based on a slightly modified version of the OECD framework. The process to move in this direction is being developed in three stages:

1) Establish a discussion on the measurement of progress and social welfare with the participation of relevant stakeholders, public sector, academia, the private and social sectors, public opinion leaders and the statistical community. This has been carried out through several international seminars: Measuring progress and social welfare organized at the Center for Economic Research and Teaching (CIDE) in October 2009, to discuss the implications of the report of the Stiglitz-Sen-Fitoussi Commission; the Latin American Conference for the Measurement of Welfare and Fostering the Progress of Societies organized in collaboration with OECD in May 2011; and the seminar Subjective Well, its measurement and use in Public Policy and Decision Making in Mexico and Latin America, conducted in collaboration with the Latin American Faculty of Social Sciences (FLACSO), among other seminars related to the measurement of social progress which include sessions on Social Cohesion, Middle Classes, Productivity, Climate Change and Vulnerable Social Groups .

2) The second step is to generate a set of basic indicators of progress and social welfare from an adjusted version to Mexico of OECD's taxonomy from How's Life? This work has integrated a set of indicators already produced by INEGI and by some other sources; in very few cases (as in the subjective well-being) it was necessary to conduct a survey.

Indicators will be provided for the country and for its 32 states on a number of relevant issues: a) quality of life; b) material living conditions, and c) welfare sustainability. These indicators will be available either separately or could be used to construct an index that uses the variables and the weights selected by each user.

For the topic on the quality of life, data on subjective well-being was produced through a module of the National Survey of Household Expenditure during the first quarter of 2012. Also, starting from the second half of 2013 a module in the Consumer Confidence Survey will be applied on a regular basis on the third month of each quarter. INEGI also plans to conduct a module on subjective well-being in the National Survey of Income and Expenditure Survey in 2014, and is evaluating the incorporation of subjective well-being questions in the next National Time Use Survey. The purpose is to include subjective wellbeing questions in a variety of surveys in order to understand how subjective wellbeing indicators are correlated with a wide range of variables.

3) The third step is to promote the use of the indicators and get public feedback for improvement. In this sense, the INEGI's website has published these indicators asking user for comments and recommendations. We will continue with the seminars and roundtables, as well as a "road show" to present these indicators to different groups of people, from experts to ordinary citizens in order to advance in its enrichment and improvement.

At this time, the results of the first survey on subjective well-being have gained most public attention, with a marginal cost close to zero, and they have had an impact in the media similar to the most recent population census. This could be a reflection of the demand of the public for subjective welfare indicators.

The 5th OECD World Forum on Statistics, Knowledge and Policy will be hosted by Mexico in 2015. It will increase the visibility this topic among relevant stakeholders and strengthen the interest in considering measurement of progress more broadly to monitor growth and the distribution of welfare in its various dimensions: material progress, quality of life and sustainability.

The Philippines: Experience in Measuring Happiness and Progress

In 2007, the Philippine National Statistical Coordination Board (NSCB) was invited to participate in the 2nd OECD World Forum on Statistics, Knowledge, and Policy held in Turkey. During this World Forum, the Istanbul Declaration was issued; this Declaration highlighted the need to measure progress of societies beyond the conventional economic measures, a concern that continued to be discussed in the 2009 OECD World Forum held in Busan, Korea and in the 2012 World Forum in Delhi, India, where the NSCB also participated.

The NSCB, as the coordinating body of the Philippine Statistical System (PSS), compiles the Philippines' <u>national income accounts</u>. In addition, the NSCB is also the statistical agency responsible for releasing <u>official poverty statistics</u>, monitoring the <u>Millennium Development</u> <u>Goals</u>, and releasing the <u>Statistical Indicators on Philippine Development</u> or StatDev. The latter is a statistical indicator system that helps monitor the progress in achieving the country's development goals set forth in the Philippine Development Plan (PDP) ; the StatDev replaced the former Economic and Social Indicators (ESI) publication of the NSCB, starting with the StatDev 2004 released in July 2005 ; the StatDev also serves as an input in the State of the Nation Address (SONA) of the President.

Throughout Philippine society, the GDP is known as a useful measure of economic development, but there is recognition that this does not, by itself, adequately measure the progress of Philippine society. Three months after the Istanbul Declaration in 2007, the NSCB engaged in a developmental task of coming up with a methodology to estimate the Philippine Happiness Index (PHI), cognizant of work in other countries led by Bhutan in measuring happiness.

The guiding principle in coming up with the PHI is that economic progress and happiness are not synonymous. Initially, the NSCB attempted to come up with a Gross National Happiness Index for the Philippines with two components, viz., the PHI and an Economic Index based on the

GDP. However, results were not found to be robust¹; succeeding efforts focused solely on the PHI.

The PHI uses a conceptual framework that is not normative. That is, the conceptual framework for the PHI involves recognition that different individuals have different sources or domains of happiness. Hence, in the compilation of the PHI, each individual defines their own sources of happiness. The basic data for the PHI are envisioned be collected through a sample survey. Subject to fund availability, this can be conducted as a rider to the Labor Force Survey (LFS), regular conducted every quarter by the National Statistics Office (NSO). The PHI is computed as follows:

- Each individual identifies his/her domains of happiness. The list consists of: 1) community participation and volunteer work; 2) cultural activities; 3) education; 4) family; 5) friends; 6) health; 7) income and financial security; 8) leisure and sports; 9) love life; 10) religion and/or spiritual work; 11) sex life; 12) technological know-how; 13) work; 14) economy; 15) environment; 16) government; 17) politics; and 18) peace and security; 19) food; and 20) others. Domains need not be limited to the list given and in fact, have been expanded since the initial list of domains was made.
- 2. Each individual determines the weights (relative importance) of each domain ; and each individual measures the level of happiness for each identified domain.
- 3. Each individual's happiness index is computed, with the overall PHI is computed from the happiness index of the individuals.

Using this methodology, the PHI was measured for pilot tested in purposive samples: Low Income Families, Government Agency A, Government Agency B (in the military), Private Agency A, and Participants in conferences. Results of the pilot test show that:

1. The two most important sources of happiness are family and health, while least important sources of happiness include politics, government, community and volunteer work, and cultural activities.

¹ <u>http://www.nscb.gov.ph/ncs/10thNCS/papers/invited%20papers/ips-28/ips28-03.pdf</u>

- 2. Respondents are happiest with family, religion, friends, love life, and health, while respondents are least happy with government, politics, and economy.
- 3. Other interesting results include the following:
 - Women have become unhappier; they used to be happier than men.
 - The PHI of the Happy respondents is higher than the PHI of the Unhappy respondents² and the Low Income by as much as 32 and 22 percentage points, respectively.
 - Respondents view progress as synonymous with happiness.

While the existing methodology on the estimation of PHI and the compilation of better measures of progress of Philippine society will require fine tuning, the NSCB has been exerting efforts to sustain this initiative but faces challenges in the compilation of the PHI:

- 1. Addressing limitations of the framework and estimation methodology, particularly on:
 - The framework used in the selection of the possible domains of happiness;
 - The survey coverage, selection of respondents, timing and frequency of conduct;
 - The quality of responses to the self-administered questionnaire.
- 2. Demonstrating the relevance of PHI through actual policy uses. The PHI is envisioned to motivate leaders to be well-informed on the kind of interventions that contribute to the happiness of their constituents.
- 3. Sustaining appreciation of the international community, specifically the OECD, to push the agenda forward.
- 4. Institutionalization of the generation of the PHI. In February 2010, the NSCB Executive Board issued a statistical policy resolution enjoining the PSS to pursue the PHI agenda forward. Demand to generate the PHI, however, has not been high enough.

² Happy if PHI > 0.65; Unhappy if PHI < 0.50.

Greater advocacy will be needed to inform stakeholders that genuine progress of society should not be measured only in terms of economic development. In the medium-term, the PSS uses the Philippine Statistical Development Program (PSDP) 2011-2017 as a roadmap for the production and delivery of timely, relevant, and quality official statistics that is anchored on every Filipino's right to information. The compilation of the PHI is included in the <u>PSDP 2011-2017</u>, specifically in Chapter 14 – Income, Poverty, and Hunger Statistics. The PSDP Chapter covers areas on statistical coordination and management, data production, and statistical capacity building, among others. Last 12 September 2013, the <u>Philippine Statistics Act of 2013</u> (also called Republic Act 10625) was signed into law by the Philippine President. This Act consolidates technical staff of the NSCB with those of the NSO and the Bureau of Agricultural Statistics as well as the Bureau of Labor and Employment Statistics, into the Philippine Statistics Authority (PSA). Statistical programs to be pursued in the future will be reexamined in the light of the establishment of the PSA. Ultimately, it is important that human, financial, and other resources be made available to pursue this agenda forward on the PHI and the measurement of progress of Philippine society.

Switzerland: Implementing measure of social progress and sustainable development

Switzerland has adopted a sustainable strategy since 1987. The current Strategy covers the period 2012-2015. A system of sustainable development indicators (called MONET) was launched in 2003 and contained about 125 indicators. This system has been revised in 2009 and contains now 75 indicators organized in 12 topics and 6 main categories. The construction of this SDI-System has been conducted by the Swiss Federal Statistical Office in close cooperation with 3 federal agencies.

The indicators has been chosen according to a conceptual framework based on the Brundtland definition (here and now, later, elsewhere and distribution). More than 80 persons from more than 20 federal agencies and ministries were involved in the selection of the indicators. The same participative approach has been used during the revision of the system. A subset of 12 indicators measures the global dimension of SD (elsewhere).

The full system is used to monitor whether or not and in which areas Switzerland is on the road to sustainable development. A subset of the system (50 indicators) is used to monitor the 10 Key challenges of the Swiss Federal Council's SD-Strategy. These indicators are communicated thanks to an interactive dashboard¹, which was launched in November 2009

The indicators of the MONET-System (National level) are updated yearly or according to data availability. Each indicator is published on the internet and evaluated according to the observed trend. The evaluation is communicated by traffic light symbols. The evaluation is positive (green, moving towards sustainability) if the observed trend is in line with the target trend (defined by the frame of reference), negative (red, moving away from sustainability) if the observed trend is opposite to the target trend, and neutral (yellow) when there is no significant change.

A brochure called "Sustainable Development - A brief Guide", intended for policy makers and the general public, shows through 17 key indicators where Switzerland finds itself on the way to

¹ <u>www.monet.admin.ch</u>, available in French and German, key indicators also in Italian and English, indicators on the global dimension also in English)

sustainable development. It is structured around four questions of fundamental importance for sustainable development and partly derived from the Brundtland definition. In 2012, a "Sustainable Development Report" of Switzerland was launched for the first time.

The Federal Statistic Office (FSO) also publishes SD-Indicators at the regional (cantons) and local level (cities). This system, called "Cercle Indicateurs", has been developed in close cooperation with two federal agencies, 8 cantons and 14 cities at the beginning of the 2000s. Now 20 cantons (from 26) and 19 cities takes part in this system that covers the environmental, economic and social dimensions. The indicators at regional level are updated all two years, at local level all four years².

FSO publishes also since May 2012 a first set of 27 indicators³ complementing GDP with additional information on the three areas of society. This first set will be completed until end of 2014 by an information system based on a sound conceptual basis (link between capital approach and well-being) on comprehensive well-being in general and the economic, social and environmental development of Switzerland in particular.

² <u>http://www.bfs.admin.ch/bfs/portal/fr/index/themen/21/04/01.html</u> (in French and in German)

³ <u>http://www.bfs.admin.ch/bfs/portal/en/index/themen/00/09.html</u> (in French and German)

United Kingdom: Implementation of measure of social progress and sustainability

The Department for Environment, Food and Rural Affairs (Defra) published the first assessment of a new set of <u>Sustainable Development Indicators</u> (SDIs), meeting Government commitments to transparency and sustainable development.

The new sustainable development indicators (SDIs) provide an overview of national progress towards a more sustainable economy, society and environment, and complement the National Well-being Measures published by the Office for National Statistics (ONS). Their publication fulfils a commitment in the Government's vision for mainstreaming sustainable development, published in February 2011, to 'measure and report our progress through a new set of sustainable development indicators.'

These new indicators will help UK take stock of its progress and give the public the means to chart its success. These indicators along with the measures of wellbeing underline UK's commitment to going beyond GDP to measure the health and wealth of the UK.

The new set of SDIs were published in July 2013 and are made up of 12 headline and 23 supplementary indicators, comprising 25 and 41 measures respectively¹¹.

Economy	Society	Environment
Economic prosperity	Healthy life expectancy	Greenhouse gas emissions
Long term unemployment	Social capital	Natural resource use
Poverty	Social mobility in adulthood	Wildlife and biodiversity
Knowledge and skills	Housing provision	Water use

The twelve headline indicators are:

This revised set of indicators replace the previous SDIs which had been maintained by Defra since 2001 and consisted of 68 indicators comprising 126 measures. The reduced size of the set

¹ Link to SDIs: <u>http://sd.defra.gov.uk/new-sd-indicators/proposed-indicators/</u>

follows the example of other international institutions in identifying a core set of headline indicators to highlight sustainable development priorities for users and government.

Updates on the indicators will be published annually with a overview of assessments showing whether progress is in the right direction. Sustainable Development Indicators and have been also widely used outside of Government by academics, non-Governmental Organisations and businesses. This consultation will give stakeholders the opportunity to comment on the choice and coverage of a new set.

The Measuring National Well-being (MNW) programme published a roadmap to include natural capital and ecosystems into the UK Environmental Accounts by 2020. The roadmap set up out the priorities and the plans that the UK intends to do to develop natural capital and ecosystem accounting. As part of this, the MNW programme is also developing natural capital estimates based on the comprehensive wealth estimates developed by the UN and the World Bank. The link to roadmap could be found at

http://www.ons.gov.uk/ons/about-ons/user-engagement/consultations-and-surveys/archivedconsultations/2012/accounting-for-the-value-of-nature-in-the-uk/index.html

Links to completed papers:

Measuring the UK Woodlands Ecosystem: <u>www.ons.gov.uk/ons/guide-method/user-guidance/well-being/publications/measuring-the-uk-</u> <u>woodlands-ecosystem.pdf</u>

Monetary Valuation of UK timber resources: <u>www.ons.gov.uk/ons/guide-method/user-guidance/well-being/publications/monetary-valuation-of-uk-timber-resources.pdf</u>

Measuring UK woodlands area and timber resources: <u>www.ons.gov.uk/ons/guide-method/user-guidance/well-being/publications/measuring-uk-</u> <u>woodlands-area-and-timber-resources.pdf</u>

Monetary valuation of UK continental shelf oil and gas resources: <u>www.ons.gov.uk/ons/guide-method/user-guidance/well-being/publications/monetary-valuation-of-uk-continental-shelf-oil-and-gas-reserves.pdf</u>

In addition, ONS is currently working on creating an initial monetary ecosystem account for woodland, building on the above physical account, due for publication in April 2014. A scoping study is also being worked on for the freshwater habitat in the UK with the view to create similar ecosystem accounts for this habitat later in 2014. Finally, the ONS is planning on creating Top Down overall estimates of the UK Natural Capital stock in 2014 - for all habitats, not by habitat.

Link to Well-being Wheel of Measures:

http://www.ons.gov.uk/ons/interactive/well-being-wheel-of-measures/index.html

USA: Compendium of activities for use in measuring sustainability

A variety of government statistical and information activities are underway that will be useful components of sustainability metrics. These efforts while not directly developed for sustainability measurement illustrate the types and origins of data useful for this purpose.

American Community Survey

Continuous measurement has long been viewed as a possible alternative method for collecting detailed information on the characteristics of population and housing; however, it was not considered a practical alternative to the decennial census long form until the early 1990s. At that time, demands for current, nationally consistent data from a wide variety of users led federal government policymakers to consider the feasibility of collecting social, economic, and housing data continuously throughout the decade. The benefits of providing current data, along with the anticipated decennial census benefits in cost savings, planning, improved census coverage, and more efficient operations, led the Census Bureau to plan the implementation of continuous measurement, later called the American Community Survey (ACS). After years of testing, outreach to stakeholders, and an ongoing process of interaction with key data users—especially those in the statistical and demographic communities—the Census Bureau expanded the ACS to full sample size for housing units (HUs) in 2005 and for group quarters (GQs) in 2006.

The history of the ACS can be divided into four distinct stages. The concept of continuous measurement was first proposed in the 1990s. Design proposals were considered throughout the period 1990 to 1993, the design and early proposals stage. In the development stage (1994 through 1999), the Census Bureau tested early prototypes of continuous measurement for a small number of sites. During the demonstration stage (2000 to 2004), the Census Bureau carried out large-scale, nationwide surveys and produced reports for the nation, the states, and large geo-graphic areas. The full implementation stage began in January 2005, with an annual HU sample of approximately 3 million addresses throughout the United States and 36,000 addresses in Puerto Rico. And in 2006, approximately 20,000 group quarters were added to the ACS so that the data fully describe the characteristics of the population residing in geographic areas. Please find additional information at: http://www.census.gov/acs/www/

US Environmental Protection Agency Report on Environment

To accomplish its mission, the U.S. Environmental Protection Agency (EPA) must pay close attention to trends in the condition of the nation's air, water, and land, and to associated trends in human exposure and health and the condition of ecological systems. Data on environmental trends serve two key purposes: they provide valuable input to EPA in developing its strategic outlook and priorities, and they allow EPA and the public to assess whether the Agency is succeeding in its overall mission to protect human health and the environment. EPA prepared this Report on the Environment (ROE) to accomplish these purposes. In 2001, EPA created for the first time, an extensive set of environmental indicators that are important to its mission. EPA presented these indicators in its Draft Report on the Environment Technical Document, released in 2003. Since then, EPA has revised, updated, and refined the ROE in response to scientific developments and to feedback from public stakeholders and EPA's Science Advisory Board (SAB). EPA's 2008 Report on the Environment presents the results of this work. The 2008 ROE compiles, in one place, the most reliable indicators currently available to answer 23 questions that EPA believes are of critical importance to its mission and the nation's environment. The indicators are supported by data gathered from federal and state agencies and nongovernmental organizations. All of the indicators were peer-reviewed to meet exacting standards for accuracy, representativeness, and reliability. The 2008 ROE presents trends wherever adequate data are currently available, and it establishes reliable national baselines where they are not. Equally important, the report identifies key limitations of these indicators and gaps where reliable indicators do not yet exist. This report does not propose actions to reduce data limitations or fill gaps, nor does it analyze the costs and benefits of doing so. Please see: www.epa.gov/roe

The National Health and Nutrition Examination Survey

The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations. NHANES is a major program of the National Center for Health Statistics (NCHS). NCHS is part of the Centers for Disease Control and Prevention (CDC) and has the responsibility for producing vital and health statistics for the Nation.

The NHANES program began in the early 1960s and has been conducted as a series of surveys focusing on different population groups or health topics. In 1999, the survey became a continuous program that has a changing focus on a variety of health and nutrition measurements to meet emerging needs. The survey examines a nationally representative sample of about 5,000 persons each year. These persons are located in counties across the country, 15 of which are visited each year. The NHANES interview includes demographic, socioeconomic, dietary, and health-related questions. The examination component consists of medical, dental, and physiological measurements, as well as laboratory tests administered by highly trained medical personnel. Findings from this survey will be used to determine the prevalence of major diseases and risk factors for diseases. Information will be used to assess nutritional status and its association with health promotion and disease prevention.

NHANES findings are also the basis for national standards for such measurements as height, weight, and blood pressure. Data from this survey will be used in epidemiological studies and health sciences research, which help develop sound public health policy, direct and design health programs and services, and expand the health knowledge for the Nation.

As in past health examination surveys, data will be collected on the prevalence of chronic conditions in the population. Estimates for previously undiagnosed conditions, as well as those known to and reported by respondents, are produced through the survey. Such information is a particular strength of the NHANES program. Risk factors, those aspects of a person's lifestyle, constitution, heredity, or environment that may increase the chances of developing a certain disease or condition, will be examined. Smoking, alcohol consumption, sexual practices, drug use, physical fitness and activity, weight, and dietary intake will be studied. Data on certain aspects of reproductive health, such as use of oral contraceptives and breastfeeding practices, will also be collected. The diseases, medical conditions, and health indicators to be studied include anemia, cardiovascular disease, diabetes, environmental exposures, eye diseases, hearing loss, infectious diseases, kidney disease, nutrition, obesity, oral health, osteoporosis, physical fitness and physical functioning, reproductive history and sexual behavior, respiratory disease (asthma, chronic bronchitis, emphysema), sexually transmitted diseases, vision. The sample for the survey is selected to represent the U.S. population of all ages. To produce reliable statistics, NHANES over-samples persons 60 and older, African Americans, and Hispanics. Since the United States has experienced dramatic growth in the number of older people during this century, the aging population has major implications for health care needs, public policy, and research priorities. NCHS is working with public health agencies to increase the knowledge of the health status of older Americans. NHANES has a primary role in this endeavor. Please see: <u>http://www.cdc.gov/nchs/nhanes.htm</u>

American Time Use Survey

The American Time Use Survey (ATUS) provides nationally representative estimates of how, where, and with whom Americans spend their time, and is the only federal survey providing data on the full range of nonmarket activities, from childcare to volunteering. ATUS data files are used by researchers to study a broad range of issues; the data files include information collected from over 136,000 interviews conducted from 2003 to 2012. ATUS data files can be linked to data files from the Current Population Survey (CPS). This expands the context in which time-use data can be analyzed and saves taxpayer money because fewer questions must be asked in the ATUS interview. ATUS time-use estimates are available at <u>www.bls.gov/tus/#tables</u>

What are some of the uses of ATUS data?

1- Economic research

The Bureau of Economic Analysis has used ATUS data to measure the value of unpaid work, including volunteering, child care, and household activities. Researchers at the Bureau of Labor Statistics have examined the time Americans spend working at home and how this additional work time can be used to enhance traditional measures of worker productivity. Because they are collected continuously, ATUS data have been used to measure changes in the time Americans spend working, doing household production, and in leisure at different points in a business cycle.

2-Health and safety

The Bureau of Transportation Statistics has used ATUS data to measure exposure to vehicle accident risk. The Federal Interagency Forum on Aging-Related Statistics uses ATUS data as a "use of time indicator" in the publication, *Older Americans: Key Indicators of Well-Being.* The Economic Research Service at the Department of Agriculture used ATUS data to examine eating and drinking patterns and how they relate to a person's overall health. They also are using ATUS data to look at how Americans use food assistance programs. Sleep researchers have used ATUS data to measure the tradeoffs Americans make between sleep, work, commuting, and other activities, and how they relate to overall health. ATUS data on how much time people spend alone or with others can be used to study social isolation in different groups.

3-Family and work-life balance

Researchers use ATUS data to estimate how much time mothers and fathers spend with their children, and how it has changed over time. ATUS researchers study how working parents find the time to balance the demands of childcare, work, leisure, and other activities in their lives ATUS data show how different groups of Americans spend their leisure time, such as watching television, socializing with their neighbors, and exercising.

Annex: Mapping of indicator projects around the world (work in progress)*



* Member States and regional and international organizations are requested to provide information for inclusion in this map.