

Environmental Accounts

Current and potential uses of the accounts

1. Introduction

Environmental Accounts provide data on the environmental impact of UK economic activity and the contribution of the environment to the economy. The UK Environmental Accounts are used to inform sustainable development policy, to model impacts of fiscal or monetary measures and to evaluate the environmental impacts of different sectors of the economy.

Environmental Accounts are satellite accounts to the main National Accounts. Satellite accounts are extensions to the National Accounts which facilitate analysis of the wider impact of economic change.

2. International context

The United Nations Statistical Commission is working towards the adoption of the Integrated Environmental and Economic Accounting (SEEA) handbook to an international statistical standard by 2012. The revised SEEA will be the statistical standard for Environmental-Economic Accounting.

<http://unstats.un.org/unsd/envaccounting/seea.asp>

Eurostat, the statistical agency of the European Commission, describe the uses of environmental accounts and environmental statistics within the context of the 6th Environmental Action Programme (EAP), adopted in 2002, and the strategies which support it. The EAP is the EU ten-year policy programme for the environment.

Eurostat published in 2008 a 'Revised European Strategy for Environmental Accounting' stating that 'European leaders have recognised the important role of Environmental Accounting, as an instrument to measure targets of Sustainable Development, of the Lisbon strategy and of the EU environmental policy'.

Part for the strategy outlined was the development of European regulation on environmental-economic accounting. The regulation is going through co-decision procedure and if adopted will be operational in 2012.

The UK currently makes voluntary returns to Eurostat for the following:

- Air emissions accounts by NACE code and pollutant
- Material Flow Accounts
- Environmental taxes by NACE code and type of tax

These three returns are the key modules for the EU-wide regulation. It is, however, anticipated that this regulation, if adopted, will be extended over time to include a broader range of modules, some of which ONS already produce such as energy accounts and some of which will need to be developed such as ecosystem accounts.

<http://epp.eurostat.ec.europa.eu/portal/page/portal/environment/introduction>

http://epp.eurostat.ec.europa.eu/portal/page/portal/environmental_accounts/documents/ESEA_REVISION_2008_0.pdf

There are also a range of international programmes which make specific reference to the need for Environmental Accounts. These are described later in this document.

3. UK statistics

Sustainable development

The environmental accounts currently underpin several of the national sustainable development indicators (7, 10, 11, 12 and 13) published by DEFRA. The indicators provide an overview of some of the important goals for sustainable development.

<http://www.defra.gov.uk/sustainable/government/progress/>

Within the context of delivering sustainable economic growth, HM Treasury's 2010 Spending Review included decisions targeted to 'position the UK at the forefront of the transition to a low carbon economy'. Also in October, David Cameron's speech to the Confederation of British Industry on 'creating a new economic dynamism' talked of investment in the UK offshore wind industry as 'a triple win' stating that 'it will help secure our energy supplies, protect our planet and....could create 70,000 jobs'.

In the UK, and globally, questions are being posed that have both environmental and economic sustainability at their heart. At the macro-level these questions focus on issues such as the size of the environmental goods and services sector, the contribution to the wider economy, the relative productivity of low carbon and traditional industries and competitiveness in the global market. The Department for Business, Innovation and Skills published 'The Path to Strong, Sustainable and Balanced Growth' in November 2010 and is working with the Department for Environment, Food and Rural Affairs and the Department of Energy and Climate Change to develop a 'Roadmap to a Green Economy'. An evidence base is required to measure progress and to this end, with the help of Eurostat funding, the ONS is conducting a feasibility study to measure the environmental goods and services sector and its contribution to the UK economy.

<http://www.statistics.gov.uk/cci/article.asp?ID=2620&Pos=1&ColRank=1&Rank=1>

National Well-being

In November, the UK Prime Minister, David Cameron, asked for the nation's well-being to be measured from April 2011, stressing that the government are seeking to promote quality of life as well as economic growth.

Mr Cameron has asked the National Statistician to lead this work and the aim is that these new measures will cover the quality of life of people in the UK, environmental and sustainability issues, as well as the economic performance of the country.

To develop better measures of the nation's well-being, the first stage for ONS is to consult with people, organisations and business across the UK, as well as central and local government, to ask what matters most in people's lives and what is important for measuring the nation's well-being. To this end, a national debate is underway in the UK.

However, in launching this agenda in the UK, the Prime Minister recognised the importance of the report commissioned by President Sarkozy of France from world renowned economists Stiglitz, Sen and Fitoussi on the measurement of economic performance and social progress and the principles therein.

Focusing on sustainable development and the environment, Stiglitz et al describe a stock-based approach to sustainability, assessing that future well-being will depend on the stocks of exhaustible resources left to future generations and how well the quality and quantity of renewable resources are maintained. This extends beyond natural resources, for example, to human capital, but the report talks explicitly about the environmental accounts, describing internationally mainstreamed accounts based on agreed international statistical standards as 'vital building blocks' for any form of sustainability indicator.

<http://www.ons.gov.uk/well-being>

<http://www.statistics.gov.uk/cci/article.asp?ID=2572&Pos=4&ColRank=2&Rank=1000>

<http://www.stiglitz-sen-fitoussi.fr/en/index.htm>

Valuing Natural Capital

Globe International Commission on Land Use Change and Ecosystems published a Natural Capital Action Plan in October 2010 to 'define a clear and targeted set of actions for legislators to ensure the true value of ecosystem services and natural capital is integrated into policy making'. One of the recommendations of the report is the establishment of a comprehensive set of natural capital accounts. The report states that:

'Environmental accounts incorporate the value of natural capital into the national accounting framework.....By developing comprehensive environmental accounts natural capital can be included alongside other forms of capital in national income accounts. This approach will highlight to policy makers the relationship between the environment and the economy and help ensure that natural capital is used in a sustainable way to support the economy over the long term'.

Globe International, October 2010

This has some synergy with the recommendations by Stiglitz et al for a 'stocks' approach and hence the National Well-being programme, and also the Natural Environment White Paper to be published in Spring 2012 which the Chancellor has indicated 'will include measures to...value natural capital complementing the national accounts'. (Speech by Chancellor, 15 December 2010). The OECD Green Growth Strategy (interim report) also places importance on monitoring stocks of natural resources.

The valuation of natural capital will be supported internationally by the continued development and implementation of the SEEA and the published UK Environmental Accounts strategy sets out first steps in reviewing the natural resource accounts but there is a broad recognition that there are significant methodological issues to be overcome internationally before these user requirements can be met.

<http://www.globeinternational.info/wp-content/uploads/2010/10/Final.GLOBE-Natural-Capital-Action-Plan.pdf>

http://www.oecd.org/document/3/0,3746,en_2649_37465_45196035_1_1_1_37465_0.html

Presenting a wider picture of the environment

The environmental accounts are used in several compendia publications to provide a picture of environmental pressures in the UK, providing specifically a connection

between the economy and the environment and an industry perspective. Examples include Transport Statistics which present the emissions by the transport industries, Social Trends and Annual Abstract.

Modelling

The UK Environmental Accounts are supported by a range of detailed published industry datasets, particularly for energy consumption and air emissions, which are helpful for academics and researchers. However, developing the environmental accounts further to a full NAMEA framework based on an input-output framework would facilitate the type of analyses outlined in the ESRC report to the Scottish Environmental Protection Agency. Historically, this has been taken forward in the UK outside of the ONS but is a potential consideration for the future.

Dr Turner, K. ESRC, The evaluation of National Accounting with Environmental Accounts (NAMEA) as a methodology for carrying out a sustainability assessment of the Scottish food and drink sector

http://www.sepa.org.uk/science_and_research/publications.aspx