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Environmental Accounting applications for Green Economy policies
Paper prepared by the Department for Environment, Food and Rural Affairs (Defra) United
Kingdom

(for discussion)

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This paper seeks the views of the UNCEEA on

- The development of a glossy booklet on Green Economy policy applications, rather than Sustainable Consumption and Production policies
- The structure, coverage and scope of such a booklet

Background

The paper presented to the UNCEEA in June 2010 identified the need to communicate the relevance of the SEEA to a wider, non-technical audience, by setting out applications from a policy perspective. It proposed the development of a glossy booklet on Sustainable Consumption and Production (SCP) which would showcase how the SEEA can contribute to the understanding, targetting, monitoring and evaluation of SCP policies. In discussion, the UNCEEA recognised the usefulness of the glossy booklets and requested a balanced presentation on the different themes (SCP, water, climate change) in terms of theory and policy. One particular issue which was highlighted in the discussion was the need to incorporate a wide coverage of example applications from different countries into the general structure. It was agreed that a draft booklet should be discussed at the meeting of the Working Group on Environmental Information and Outlooks at the OECD in November 2010, where more examples should be sought from Member States.

Since the UNCEEA meeting last year, global attention has shifted towards the more general (but somewhat vaguer) ambition of transforming current 'brown' economies into green economies, absorbing in the process much of the policy landscape previously covered by SCP. However, whereas the term SCP was not widely known, Governments across the world have already committed themselves to 'Green Growth'. It seems likely, therefore, that a glossy booklet devoted to the support of Green Economy policies will obtain more attention and engagement than one directed at the practitioners of SCP.

The SCP policy landscape was itself relatively new, with few countries having coherent sets of policies or evidence bases. It was clear that there were four central themes around which the booklet could be structured: sustainable production; sustainable consumption; sustainable

products and materials; and Government leadership. However, concrete examples of applications were hard to come by, and very few countries have responded positively to the invitation to supply examples of applications. Additionally, the emphasis within the policy framework is on the flows of resources and wastes, with little reference to protecting or sustaining the stock of natural capital. In this respect, it could be argued that SCP policies were more ‘developed-country oriented’, and did not naturally demonstrate a sufficiently wide range of potential SEEA applications for a booklet promoting the SEEA across the world.

A re-packaging of the SCP booklet towards support for Green Economy policies would offer an opportunity to redress this balance. However, it also raises a number of issues concerning the focus of Green Economy policies and the availability of actual, as opposed to hypothetical, applications.

Policy framework

The Green Economy is an emerging concept, with new areas still being identified which need to be considered. The definition of the concept, as well as the emphasis, varies from country to country (within the UK it includes energy security and resilience to climate change), and a clear framework in which to promote Green Economy policies is currently lacking¹. The bulk of the early efforts by international agencies to bring coherence to the policy area have focused more on how best to apply a range of policy instruments² rather than on what they are trying to achieve.

However, the early work on indicators gives a little more substance to what the ambition means in practical terms. For example, the OECD³ identify four themes:

- Improving the environmental and resource productivity of the economy (CO₂, energy, materials, waste, nutrients, water, on both a production and a consumption basis)
- Maintaining/enhancing the natural asset base (water, forestry, fisheries, mineral resources, land resources, soil resources, biodiversity)
- Maintaining and improving the environmental quality of life (environmentally-induced health problems, populations at risk from natural hazards, access to sanitation)

¹ EEA (2011) Assessment of assessments – Green Economy and Resource Efficiency.

² See, for example, UNEP (2011) Green Economy Report, and OECD (2011) Green Growth Strategy Synthesis Report.

³ OECD (2011) Towards Green Growth - Monitoring progress

- Providing the appropriate regulatory, fiscal and planning framework, enabling skills development and innovation (policy responses and enabling factors), and making the most of economic opportunities (environmental goods and services sector, green jobs, green investment).

To this list might be added something on adaptation and resilience (were it possible to identify appropriate indicators for such concepts).

Assuming that adaptation issues are not generally perceived to be part of the Green Economy policy landscape, the OECD framework appears to be a good basis on which to structure a booklet on Green Economy policy applications, with the provisos i) that the section on environmental and resource productivity should be divided into two parts, on production and consumption separately, and ii) that the section on the environmental quality of life should be omitted, as it is unlikely that any significant environmental accounting applications will be available for this objective. This would give the following broad structure:

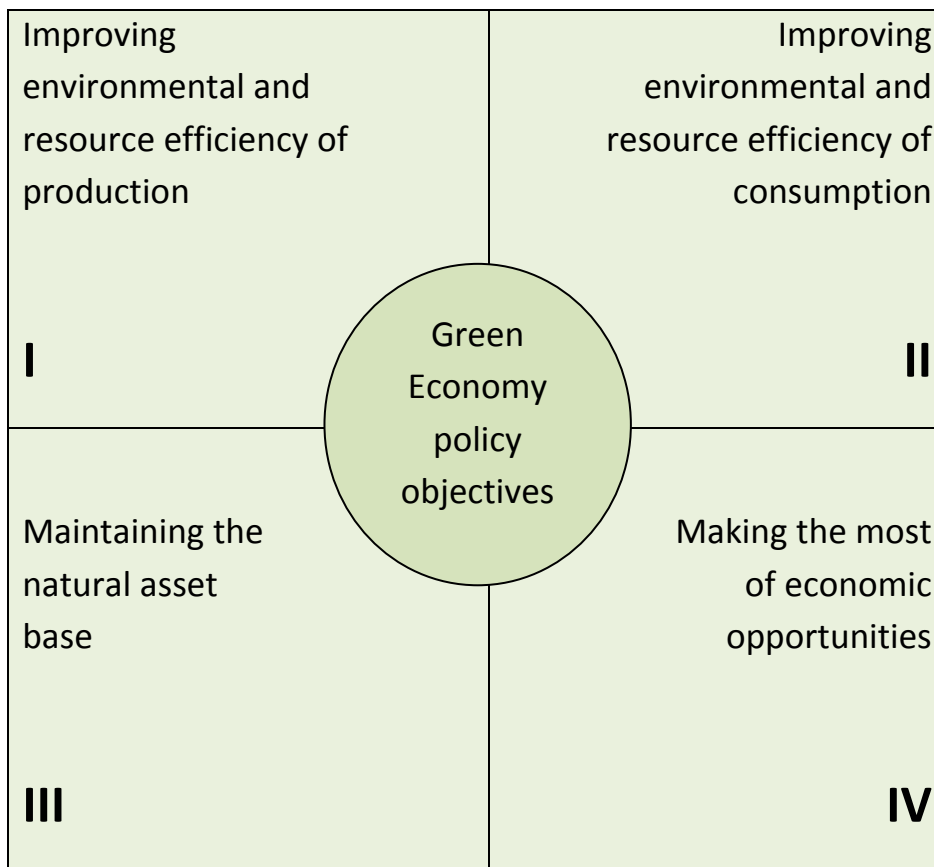


Figure 1: Grouping of Green Economy policy objectives

Obviously this is enormous in terms of scope: the concept of a green economy is all-embracing (and can include social dimensions as well)! But it fits in well with the structure of the SEEA.

Quadrant I covers policies relating to **economic production**, focusing on improving the resource efficiency of production and reducing environmental pressures from production processes, not only in manufacturing but also in the increasing service sectors. These policies include providing incentives to encourage technological innovation in the design of products and production processes across the life-cycle of the product, using a range of regulatory, fiscal and voluntary levers.

Typically the policies will need to be supported by information about the use of resources by different sectors of the economy, and pressures exerted on the environment through emissions etc., derived from physical flow accounts. Indicators featured in the OECD framework include those relating to emissions of CO₂ and waste, and those on use of energy, water and other materials.

Quadrant II covers policies relating to the reduction of **environmental impacts of consumption**. The policies tend to fall into two main groups – encouraging the purchasing of more eco-friendly products, and encouraging use and disposal behaviours which have lower environmental impacts. Both strands of policy have strong links with products policy (which is relevant to Quadrant IV below, as well as to Quadrant I above), the key point, however, being that products policy will not deliver sustainability on its own and significant changes in the way consumers behave will also be required.

Although some of the reduction in consumption impacts can result from changes in household consumer behaviours, changes in Government consumption can also have a major effect, both in terms of purchases and in the use of products. Policy activities within this theme relate both to the Government being seen to manage its own operations in a sustainable manner and meeting its own sustainability targets, and to the Government using its purchasing power to leverage change amongst its suppliers and ensuring the sustainability of its supply chains.

Much of the information on consumer behaviours needed to inform the development of policies will have to be derived from household surveys. Whilst the environmental accounts are able to provide some basic information about the direct energy use and environmental impacts of households, this will need to be disaggregated further using survey data. The main use of the accounts will lie in the link between the information on consumption and the environmental impacts of broad groups of products, derived from environmental Input-output tables. This information can be used to increase awareness of consumer impacts.

Indicators featured in the OECD framework include those relating to CO2 from a consumption perspective, and those on household impacts such as household waste and household water use.

Quadrant III relates to the conservation and maintenance of natural capital. This is a new area of policy from the perspective of green growth, focusing on maintaining the flow of ecosystem goods and services, partly through improving the information on the value of such services. Policies in the past have tended to be very issue-specific, but increasingly Governments are interested in assessing the overall stock of natural capital, both in quantitative and qualitative terms.

Asset accounts could potentially be important sources of information. In due course ecosystem accounts can also be expected to provide much relevant evidence on the value of ecosystem services.

Indicators featured in the OECD framework include available renewable freshwater resources, forest area and volume, fish stocks, mineral reserves, land cover and land use, and agricultural topsoil losses, all potentially available from environmental accounts sources.

Quadrant IV relates to the economics of the green economy, including policies aimed at the development of the environmental goods and services sector, and the implementation of fiscal policies aimed at reducing environmentally-harmful subsidies and increasing taxation on environmental 'bads'.

Monetary flow accounts will clearly be an important source of information for these policies. Indicators in the OECD framework include Research and Development expenditure in environmental technologies, gross value added and employment in the environmental goods and services sector, environmental taxes, and Foreign Direct Investment relating to Green Growth. Additionally, the Netherlands has included an indicator on carbon emissions trading within this quadrant. All of these indicators are potentially available from environmental accounts sources.

Indicators and applications

Ideally the example environmental accounting applications given in the glossy booklet should relate to the actual use of the evidence in support of policy, covering different stages of the policy cycle (identifying the problem, analysing options for intervention, targetting policies and monitoring and evaluating outcomes). In practice although many National Statistics Institutes have established systems of environmental accounts, the evidence from the accounts has not

perhaps been used by Government departments as widely as it might have been. Even where policy departments have been aware of the available data, the NSI may not be aware of the use made or the policy context. This has made it difficult to come up with a convincing range of applications from different countries.

An alternative approach might be to use the range of accounts available in different countries to the Green Economy indicators that can be derived from the accounts. This would be relatively easy to compile and the above framework would provide a readily accessible structure for the publication. It would also have the advantage of being less politically sensitive, as the indicators would be more policy neutral than the applications which, for example, evaluate policy outcomes.

Issues for the UNCEEA

UNCEEA views are sought on

- i. The change in emphasis from a booklet on Sustainable Consumption and Production applications to Green Economy applications
- ii. The change in types of applications, from those relating to different stages of the policy cycle, to a booklet simply setting out a range of indicators.

Rocky Harris

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