



EEA scientific committee opinion on aggregate and composite environmental indicators

1. The scientific committee underlines the necessity for Europe, and more specifically the EEA, to allocate resources to the critical review and development of methods for aggregate and composite environmental indicators¹.
2. The importance of such indicators is to provide valuable insights into the sustainability of society-economy-environment interactions and in so doing contribute to monitoring progress with strategic and operational policy developments in Europe – in sustainable development strategies, environmental thematic and economic sectoral strategies. Such indicators should be analysed and presented alongside the more elementary indicators that constitute, for example, the EEA core set and the EU structural- and sustainable development indicators.
3. The committee welcomes the increasing interest in the issue of aggregated indicators in policy circles including the initiative of Commissioner Dimas – “Beyond GDP” – to put environmental considerations more central to economic and budgetary decisions. Past debates and initiatives around the concept of “green GDP” have yielded promising methodological developments. The EEA should respond to the policy demand by evaluating the relevance of these various approaches and their feasibility, in total or in part.
4. The committee also advocates the use of such indicators to channel improved communication with the public on the value of maintaining environmental resources in order to maintain the economic and social well-being of Europe’s citizens.
5. The committee’s view is that, to these ends, major breakthroughs will be achieved when attention will be given to the analyzing and further development of several of these indicators and underlying methods rather than just one, because different measurement methods and the computed indicators can serve different knowledge purposes. It is as a package, carefully framed, managed, targeted and communicated, that such methods and indicators can best serve improving understanding of how using the environment the way we do to sustain our socio-economic well-being - and the impacts that result – is jeopardizing the resilience of ecosystems’ goods and services. The Millennium Ecosystem Assessment calls for better information and knowledge in this

¹ In this context, aggregate indicators are made of non-weighted sums or balances of additive variables covering a given realm (country, sector...). Composite indicators are combinations of selected additive or non additive variables that have been assigned weighting factors.



respect and Europe now has the opportunity to respond positively to this challenge.

6. From the perspective of scientific soundness, the committee recommends that the EEA takes a differentiated approach both in its evaluation and support to the development of different methods and in its use of the different indicators that result from the application of these methods. More specifically, the committee recommends that the EEA provides support to improvements of composites such as the Ecological Footprint and the Environmental Sustainability/Performance Indices of Yale by supplying underlying data provided by Eionet to ensure that the European picture is consistently represented in the global context. The EEA with Eurostat should also assess the practical usefulness of such composites for framing and monitoring European policies and/or their impacts. The committee further recommends that the EEA focuses its resources primarily towards developing composites building on the country analysis produced in The European Environment State and Outlook 2005.
7. For aggregates, the committee considers that the EEA should focus its resources, in co-operation with others such as Eurostat, primarily on methods and indicators which can be specifically related to environmental policy priorities. Of particular interest are the Human Appropriation of Net Primary Production (HANPP) index and relevant elements of the Integrated Environmental and Economic Accounting (SEEA) methodological guidelines of the United Nations. HANPP should be considered in its complexity and could develop into an indicator of pressure on biodiversity, while at the same time contributing to policy needs related to the 2010 target on halting biodiversity loss. The scientific community is close to consensus on the HANPP method, paving the way for its broader implementation. To that end, the EEA scientific committee welcomes the offer to work with Eurostat in developing deeper understanding of HANPP.
8. SEEA could support analysis of the use of energy, land, water and materials and how these impact on the environment, as well as the impacts of economic activities on ecosystem goods and services. Work is already well-established between the main European players (EEA, Eurostat and JRC) and is expected to become more mainstream pending the ongoing process in the United Nations to establish SEEA as an international standard in the official statistical system by 2010.² Moreover, the scientific committee supports EEA

² The UN Statistical Commission has decided in March 2006 to raise the Integrated Environmental and Economic Accounting (SEEA2003) to the level of an international standard by 2010, in relation to the revision of the System of National Accounts (SNA1993). A UN Committee on Economic-Environmental Accounting is mandated to draft guidelines and promote them in areas mature for implementation; organise discussions on specific points to be considered in the SNA revision ; and, develop a longer term research agenda in areas such as valuation, social accounts and ecosystems.



efforts to develop an agreed methodology and standards with Eurostat and member countries for spatial resource accounting, in connection with economic environmental accounting, more specifically, ecosystem, land and water accounts and those for material flows aspects.

9. Moreover, the complementarities within this package of composites and aggregates should be further explored by the EEA in terms of the research questions being addressed by the different measurement methods and their strengths and weaknesses in terms of policy relevance, communication value and other factors such as possible overlaps and contradictions.
10. The committee wishes to underline the importance of the aforementioned EU institutional co-operation on taking forward this package, and invites the Commission to consider how this package can be supported through activities under the EU's forthcoming seventh framework programme for research (FP7).

Adopted by the EEA scientific committee at its 37th meeting

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