

# Science for Environment Policy

## New green VAT system proposed to encourage sustainable consumption and production

**A new economic tool** designed to encourage sustainable production and consumption has been proposed in a recent study. To ensure that the environmental impact of products is reflected in their cost, the authors of the research recommend a system of green value added tax (VAT) based on life cycle assessment (LCA).

**The importance of decoupling** environmental degradation from [economic](#) growth is highlighted by the EU's Roadmap to a Resource Efficient Europe<sup>1</sup> and Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan<sup>2</sup>. Market-based instruments, such as subsidies or environmental taxes, could play a valuable part in achieving these objectives and are of particular interest as they are less expensive to implement than regulatory instruments, such as bans or quotas.

In this study, researchers propose a system whereby VAT, calculated based on the environmental impact of the whole life cycle of the product, is used to guide consumers towards more [sustainable](#), environmentally-friendly products. LCA is a tried and tested methodology, the researchers argue, that can provide accurate estimates of a product's cumulative environmental impact over its life cycle.

The researchers propose calculating VAT rates based on either a scoring system incorporating multiple environmental impacts, or the carbon footprint of the product. They also explore a third method which ensures that the state budget is not negatively affected by the use of incentives.

The environmental impact scoring system is a single score indicator based on information regarding a wide range of environmental impacts, such as global warming, human and environmental toxicity, natural resource depletion, ozone layer depletion and air pollution. These impacts should be assigned a 'weight' to indicate their relative importance, the researchers suggest. Although there is no objective basis for the weighting procedure, a decision about the weights associated with each impact category may be based on the priorities set within the policy framework.

A key advantage of this system is that the operational framework for VAT is already in place. However, there are other components that would need to be developed for the system to work. For example, producers would need to provide an environmental impact score for products based on data from the entire supply chain. This would require large, freely available, reference datasets. Leading on from this, a public body would also be required to implement the system and inspect environmental declarations.

The researchers emphasise that this system would need a full and thorough assessment before any attempt at its implementation. For example, issues regarding international trading agreements would need to be resolved and tools for running environmental assessments on products would need to be developed.

Overall, however, the researchers conclude that this combination of VAT and LCA has the potential to have a significant impact on the sustainability of consumption and production. Environmentally-friendly products are often more expensive, where production is restricted to more costly sustainable processes. This system will ensure that such eco-friendly products will be able to better compete with others on the market.

**14 November 2013**  
**Issue 350**

**Subscribe to free**  
**weekly News Alert**

**Source:** . De Camillis, C. & Goralczyk, M. (2013). Towards stronger measures for sustainable consumption and production policies: proposal of a new fiscal framework based on a life cycle approach. *International Journal of Life Cycle Assessment*. 18:263–272. DOI: 10.1007/s11367-012-0460-5.

**Contact:** : [camillo.de-camillis@jrc.ec.europa.eu](mailto:camillo.de-camillis@jrc.ec.europa.eu)

**Read more about:**  
[Environmental economics](#),  
[Sustainable consumption and production](#),  
[Sustainable development and policy assessment](#)

The contents and views included in *Science for Environment Policy* are based on independent, peer-reviewed research and do not necessarily reflect the position of the European Commission.

To cite this article/service: "[Science for Environment Policy](#)": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

1. [http://ec.europa.eu/environment/resource\\_efficiency/about/roadmap/index\\_en.htm](http://ec.europa.eu/environment/resource_efficiency/about/roadmap/index_en.htm)

2. [http://ec.europa.eu/environment/eussd/escp\\_en.htm](http://ec.europa.eu/environment/eussd/escp_en.htm)

