The fruit and vegetables ecobalance

Professionals examine the question

With the large supermarket chains grabbing the dossier on the environmental labelling of fresh fruit and vegetables, sector professionals—especially importers—fear the application of new rules without their being consulted. The equation consisting of multiple methodologies, rare technical references and approaching the question in too much of a hurry risks leading to over-simplification and falsehoods. This is why the French importers' syndicate and CIRAD are examining the question.

The environment is in fashion! In a short period of time, the environment and energy have become central social, institutional and industrial questions. This major trend is confirmed by the multiplication of environmental signs and labels on all products. Tesco, the leading British supermarket chain, was a precursor with carbon labelling based on the food miles concept. It was followed in France by Casino and then Leclerc, with the former providing consumers with the CO2 emissions involved in packaging manufacture, the possibility of recycling and the kilometres travelled by each of its products. In addition, a traffic light system (from green to red) is adjusted to the environmental impacts related to the product, like the energy labels on household equipment like fridges. Leclerc has tested 'simplified CO2 balance' labelling on the price ticket and customer receipts in two supermarkets in northern France. In terms of comparative advantages, this new 'ecological' awareness is a real strategic issue for retailers. The prime aim of labelling is to help buyers to make a choice. However, it would seem that this multiplication of initiatives does not always hit the target. Over-stigmatisation has the opposite effect. For example, shoppers perceived Tesco's initiative of placing the symbol of an aeroplane on the sales packaging of fresh produce shipped by air as a sign of quality and freshness as a result of the speed of this type of transport and not as a warning of the environmental impact of air freight.

Standardise approaches in order to compare the results

In addition to the variety of modes of information on these subjects, the content of the information is also puzzling. The tools for the evaluation of environmental impacts—Bilan Carbone®, food miles, life cycle assessment (LCA), etc.—are varied and clearly different and so do not have the same viewpoint. This makes it more complex and even impossible to compare the information in different labelling systems. Today, the LCA system seems to have gained a broader consensus, especially as it is covered by standards (ISO 14040/14044).

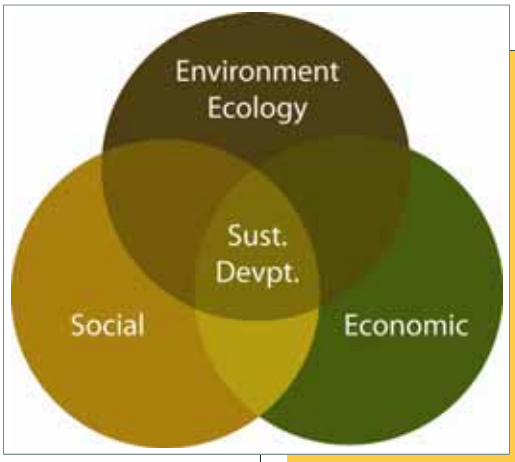
The LCA consists of assessing the environmental impacts throughout the life cycle of a product, 'from cradle to grave', with an inventory of the input and output of the system defined. In France, the 'Grenelle de l'Environnement' discussions instigated environmental labelling for all mass market products by 2011 and validated the LCA method as a reference tool. This should make it possible to reduce disparate labelling by harmonising both the assessment methods and the forms of labelling.

Sustainability or bust

Furthermore, most of the approaches are limited to obvious environmental impacts such as those of packaging and transport, whereas the issues cover all aspects of sustainable development:

- the environment (impacts on non-renewable resources), including nutritional qualities and consumer health;
- economics (competitiveness, production cost, etc.);
- social aspects (impact on populations, territories, etc.).

Today for example, people are quick to stigmatise fruit and vegetable import chains because of the distance between the production sites and the consumer. However, no serious studies have been performed with all the sustainable development parameters taken into account.



In addition, it seems that the data and references that can be used for certain agricultural products in general and for horticultural produce in particular are at best obsolete or incomplete or just nonexistent. This means that there is a serious risk of using them to provide strategic information on these chains. The worst would be to reach erroneous results that validate certain preconceived ideas.

Professionals are aware of these issues and are becoming involved in the approach by participating in research with the aim of proposing reliable, transparent measurement impact tools.

Sustainable development

Sustainable development is '…development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.' This notion has two inherent concepts: that of 'needs', and more particularly the essential needs of those with the least and to whom the greatest priority should be awarded and that of the 'limits' that our techniques and social organisation impose on the capacity of the environment to respond to present and future needs.

**The definition proposed in 1987 by the World Commission on Environment and Development in the Brundtlant Report.*

Thus, the Chambre syndicale des importateurs de fruits (CSIF) in France is collaborating in a study with the Centre de coopération internationale en recherche agronomique pour le développement (CIRAD, Montpellier) aimed at developing a method for the economic evaluation of the energy ecobalances of import chains, with the application being the tomato sector, incorporating the overall LCA approach.

The energy eco-balance is just one aspect of the general problem but is determinant for these chains. The study will be presented in FruiTrop before the end of this year and is the starting-point for a complete life cycle appraisal encompassing all the dimensions of sustainability ■

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Life Cycle Assessment (LCA)

Life cycle assessment (also known as 'ecobalance') is an effective systematic method of assessing the environment impact of a product, a service or a process. The basic aim is that of reducing the pressure of a product on resources and the environment throughout its life cycle, from the extraction of raw materials to their disposal, a cycle often referred to as 'cradle-to-grave'. Life cycle assessment is both a procedure, that is to say a series of standardised stages, and also a mathematical transformation model that converts flows into potential environmental impacts. In spite of the name of the method, it is important to understand that life cycle assessment studies the function of the product or system. Indeed, if only the product itself is examined, it would become difficult to compare products serving the same function but in different ways, such as motorcars and public transport, whose common function is the transport of persons.

Source: Philippe Roux (Cemagref), various communications