

Carbon labels – pitfalls for developing countries?

Carbon labels for food are a new strategy of industrialised countries to reduce climate change-relevant gas emissions in agriculture. However, not every label includes the measurement of all emissions and may disadvantage and even exclude exporting farmers from developing countries. Policy-makers should reconsider this approach or at least focus on fair and non-discriminatory labels.

Climate change poses a challenge for the current and future generations. One strategy to reduce climate change-relevant gas emissions is the introduction of a so-called carbon label.

As consumers are increasingly interested in information about the climate impact of the products they purchase, several countries, supported by private industry and the retail sector, have already started to introduce carbon labels (UK, Switzerland, Japan).

The carbon labels are adding to the abundance of existing standards and labels (e.g. GlobalGap, organic, fair trade) dominant in the agricultural and food sector. So far, labelling initiatives have been developed in industrialised countries, with developing countries usually having no influence. Yet, through international trade, these standards and labels are taking effect on the agricultural sector in developing countries, as the history of environmental and social labels of European food products shows.

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■ Development of environmental and social labels and their effects on farmers in developing countries

In several European countries, private organic standards and labels – issued by organic producer associations – emerged in the 1970s (see Figure). Twenty years later, national and EU-wide organic standards and labels were developed, but the private labels continue to co-exist. The fair trade initiatives started with NGO-based labels in 1988 and were later harmonised by the international *Fairtrade Labelling Organization* (FLO). Food safety crises and worker’s rights scandals brought environmental and ethical issues into the awareness of a broad range of consumers in the last decade. Organic

food products have moved from niche markets to mass markets; ethical or fair trade products tend to follow this movement. Since 2000, new ethical / fair trade standards and new label initiatives like the carbon label have been developed.

Environmental and social certifications can offer export markets for farmers all around the world. At the same time, certification procedures often reduce the number of export markets and products for farmers in developing countries. The cost of compliance with standards and technical regulations can be crucial to whether a farmer will decide to export to industrialised countries. As there are competing certification schemes for organic, ethical and fair trade labels, buyers can

History of environmental and social labels used for European food products







1970s	1980s	1990s	2000s	2010
Private organic standards and labels 	Fair trade initiatives with private standards and labels 	EU-wide organic label; food safety crises and workers’ rights scandals 	New fair trade and ethical standards in addition to FLO standard 	New EU organic label; animal welfare label planned 
<p>1997: Harmonisation → single fair trade standard and label → Fairtrade Labelling Organization </p>			<p>Carbon label initiatives</p>	



Photo: Bilderbox.com

Consumers are increasingly interested about the climate impact of the products they purchase.

demand several certifications to fulfil market requirements in industrialised countries. This raises the cost of compliance and could lead to an exclusion of developing country producers from the market.

Smallholder farmers face additional difficulties with paperwork and bureaucracy; identifying the right certifier to ensure acceptance in the market is another challenge. High external assistance is necessary to implement fair trade and organic standards in developing countries; local certification bodies barely exist, which makes certification very costly.

■ Potential socio-economic impacts of a carbon label

Like social or environmental labels, carbon labels can offer export opportunities as developing countries have favourable climatic conditions for

many agricultural products. They often use low-energy-intensive production technologies which can offset transport emissions occurring during export to industrialised countries. This is true especially for tropical products which are not easily substitutable in industrialised countries. Yet there is insufficient knowledge about carbon efficiencies of developing countries to safely predict potential effects. These effects also depend strongly on the proposed label and its related measurement issues, e.g. whether primary or secondary data is used, or whether the emphasis is on reliability or on low measurement costs. Depending on the design, carbon labels can involve discriminatory practices that affect competitiveness and trade, e.g. when transport is over-emphasised. At present, carbon labels are designed in consultation with private industry in industrialised countries. Already, some measurement standards exclude emissions associated with capital-intensive

technologies, or equipment e.g. the use of tractors, machinery or long-term storage. This could create a bias against labour intensive production systems, which are typical of developing countries. Therefore, the system boundaries of what has to be included in the measurement of greenhouse gas emissions become very important. In tendency, carbon labels are likely to favour large and resourceful producers, as these have low certification costs per product due to economies of scale. When measurement and certification costs are too high, a carbon label could exclude farmers, especially smallholders, from developing countries.

■ Which lessons can be learnt for the design of a carbon label?

European experience with organic and fair trade shows that civil society organisations and the retail sector are important drivers of the emergence of standards and labels. The coexistence of several carbon standards will be a burden to a developing country's agricultural exporters. To harmonise the label initiatives, a "minimum benchmark" for carbon labels could be introduced. This "minimum benchmark" should be agreed upon at least EU-wide but optimally become an international standard regulated, for example, via the International Standard Organisation (ISO). Besides its being more efficient and cost-saving, this would facilitate consultation with developing countries.

To avoid market exclusion of developing countries, a careful decision on system boundaries and the measurement of emissions is necessary. Measurement costs were shown to be a crucial factor and should be as low as possible – which is somehow contradictory to exact measurements. Labels must be designed not to be biased to the size of producers. Group certification of smallholders should be possible and facilitated by an easy regulatory

framework. In addition, local certification bodies and related infrastructure/knowledge in developing countries are necessary to reduce inspection and certification costs. This requires international support through capacity building and financing.

A holistic carbon measurement, like the life cycle assessment (see Box), is very complex and can be extremely expensive, especially when it comes to processed food. In addition, it should be done several times a year (in and off season) to cover varying climatic and storage conditions. Simpler measurement solutions, based on estimates, often do not capture all emissions and could be biased towards certain industries or countries through counting only certain but not all possible emissions. Therefore, it is questionable whether carbon labels are an appropriate and cost-effective means to effectively reduce global greenhouse gas emissions.

■ Conclusions and recommendations

The effects of carbon labels on agricultural producers in developing countries strongly depend on label and measurement design and are therefore difficult to predict. The carbon labels per se seem no threat to (smallholder) farmers in developing countries while

Life cycle assessment

A life cycle assessment (LCA) is a technique to assess the environmental impact of a given product throughout its lifespan, which includes all stages from raw material to manufacturing, distribution, use and repair and the final disposal.

a design of labels in favour of domestic interests of companies in industrialised countries, reflecting their technologies and parameters, may ruin the export prospects of developing countries, especially of smallholders.

In case carbon labels are continued to be pursued by private and governmental initiatives, we at least recommend the development of an international “minimum benchmark” for carbon labels. Developing countries need to be included in the label design, selection of system boundaries and emission measurement decision. It is important to distinguish between low and high technological production processes, to identify locally appropriate parameters for developing countries and to distinguish between seasons. Cost-effective certification is the main point to enhance trade possibilities for developing country farmers. The standard has to be fair to all countries and different farm sizes and effectively contribute to reducing glo-

bal emissions. There is a danger that simpler measurements could distort production locations to countries which, due to a non-holistic measurement or limited system boundaries, have lower calculated emissions but, if all emissions were included, would have higher emissions. This could lead to the opposite of the original aim of carbon labels: to reduce global warming. A label that only contains the obligation to reduce the carbon emissions of a product by a certain percentage or quantity each year, as is already in place in some countries, avoids some of the above-mentioned problems but will not make it easier for consumers to choose products with low emissions as it discriminates against products with already low emissions and thus low potentials for further reductions in emissions. For any type of label, trade-offs between social development and environmental protection are expected to arise. Equity issues between developing and developed countries need to be considered. An intense discussion and more research are necessary to see whether there are better ways to reduce climate emissions of food products than carbon labels.

A full list of references can be obtained from the authors or at :
www.rural21.com

Zusammenfassung

CO₂-Label für Lebensmittel sind eine neue Strategie der Industrienationen, um klimawandelrelevante CO₂-Emissionen in der Landwirtschaft zu senken. Die CO₂-Label scheinen per se zunächst keine Gefährdung für Kleinbauern in Entwicklungsländern darzustellen und könnten diesen sogar einen Wettbewerbsvorteil verschaffen. Jedoch kann ein Label, das auf die Interessen von Unternehmen auf den Inlandsmärkten der Industrieländer ausgerichtet ist und deren Technologien und Parameter widerspiegelt, die Exportchancen für Entwicklungsländer zunichte machen. Der Entwurf kosteneffizienter Zertifizierungsmodelle ist sehr schwierig,

daher sollten sich die politischen Entscheidungsträger auf die Entwicklung gerechter, nicht diskriminierender Labels konzentrieren. In Anbetracht der vielen möglichen Nachteile von CO₂-Labeln sollte auch über Alternativen nachgedacht werden.

Resumen

Las etiquetas para alimentos que indican el nivel de carbono representan una nueva estrategia de los países industrializados para reducir las emisiones de los gases generados por la agricultura que afectan el cambio climático. Estas etiquetas de carbono no representan en sí ninguna amenaza para los (pequeños) agricultores

en los países en desarrollo y podrían incluso incrementar su ventaja comparativa. Sin embargo, si el diseño de las etiquetas favorece los intereses nacionales de las empresas en los países industrializados, reflejando sus tecnologías y parámetros, podrían arruinarse las perspectivas de exportación de los países en desarrollo. La concepción de esquemas de certificación costo-eficientes es muy difícil, de modo que las instancias políticas responsables deberían centrarse en desarrollar etiquetas justas y no discriminatorias. Dados los muchos posibles escollos para las etiquetas de carbono, es necesario reflexionar también sobre las alternativas frente a estas etiquetas.