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Carbon Standards in Agriculture and Food Trade

Thom Achterbosch

‘Best Practice in Agricultural Value Chains'
hosted by the Farming First Coalition
at the Global Conference on Agriculture, Food Security and Climate Change

The Hague, 3 November 2010

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What drivers shape the path?

Shared Global Challenges

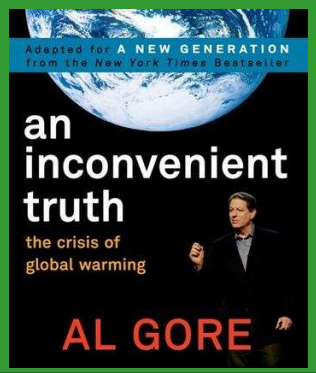
Climate change

Food Security

The Need for Sound Science

Food Miles

Heightened Public Awareness



Retailer & Sector Commitment

working with the Carbon Trust
200g CO2 per serving
We have committed to reduce this carbon footprint

approved CO2 by climatop

SAI PLATFORM

air freighted

FIPA IFAP

FIL IDF

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Mitigation in a Market Setting

- Agriculture's potential for mitigation of greenhouse gases (GHG)
- Absence of a 'market' for reduced GHG emission
- Private sector, i.e. retailers and others, responding to vocal consumer concerns
- Role of government standards
- Impact on agrifood trade and development

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What Carbon Standards Do

Measure the life-cycle impacts of consumer products and particularly their GHG emissions.

These carbon accountants draw to varying degrees on their own measured data and on data stored in life-cycle inventories.

The data are then run through spreadsheet-based life-cycle assessment (LCA) models, to generate an estimated “carbon footprint”,

Usually expressed in grams of CO2-equivalent per functional unit (e.g., kilograms or liters) of the product

Source: MacGregor 2010

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What Carbon Standards Do More

- Encourage GHG emissions reductions by enabling producers to measure and monitor their emissions
- Reducing, carbon hotspots throughout the supply chain
- Facilitate carbon credits and offsetting
- Identification of relative carbon intensity of food and agricultural products

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Challenges for Agriculture

- Reduce greenhouse gas emissions from agriculture, without jeopardizing food security
- Increase production while minimizing greenhouse gas emissions
- Low carbon farm and food products

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Challenges for Foot Printing

Several methodologies exist to calculate direct GHG effects and effects related to (indirect) land-use change

National Standards

- UK, US, Japan, France, etc
- Biofuels criteria in France, EU : carbon balance of induced land-use change

Supermarkets have their own

- Leclerc, Casino, Migros

Industry standards

- Global dairy industry “Standard-setter
- Kenya horticulture “Standard-taker”

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Private Voluntary Standards for Carbon – What's Driving Them?

If carbon is to be a persistent concern and private businesses are to be assessed according to their carbon emissions then PVS will likely help identify hotspots and, where possible, reduce emissions.

Private sector responses will include redirecting food supply chains to lower carbon alternatives and might include opportunities to offset outside their supply chains.

The best chances for success are if resulting new business models can bring about cost savings or more efficient, secure supply chains.

Source: MacGregor (2010)

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Private Voluntary Standards

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Dairy industry: Setting an industry-wide LCA standard

2008

- Sector participants developing LCA approaches

2010

- International dairy industry LCA standard

Fonterra Carbon LCA Assessment

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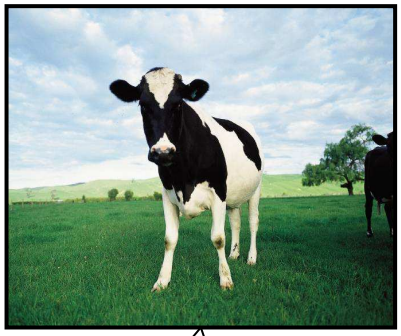
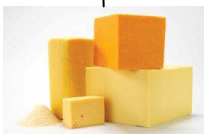
Challenges in Doing the Science



Allocation of emissions on-farm

Allocation of emissions in manufacturing



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Once the footprint is known, what to do about it?

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Kenya horticulture – Standard-taker

- Troublesome food miles concept driving *Sunripe* to seek better science
- Implementing UK standards
  - Carbon Trust UK
  - GHG conversion factors from the British Standards Institute (PAS 2050)
- Favourable GHG balance v-a-v European glasshouse production
- Mode of transport more important than distance

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Specific Challenges for Carbon LCA in Kenya Horticulture

Low input agriculture a possible merit but verification a barrier

- CO2e data missing for many types of chemicals or biological controls produced or used in developing countries
- Worst case scenarios in case of no information

Carbon credits

- PAS 2050 does not account for Carbon sinks, Stored Carbon which could be used to offset the final footprint.

Water the coming issue for LCAs

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Issues of Compliance & Cost

- Compliance burden to producers
- High cost of LCAs
- Even more complexity once water is addressed
- Market access barrier to producers- *a de facto* standard?
- A negative impact to investments if gaps not addressed.

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Challenges for Trade & Development

- Carbon standards as new barriers in trade
- Ensure access for producers in carbon efficient systems in developing countries, including the efficient small producers
- Carbon credits and offsetting, a possibly significant source of additional income for farmers. How to make value chains work for this purpose?

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Concluding

- Efforts are underway to reduce GHG emissions from agriculture, which alone account for about 14% of global GHG emissions, and even more considering that agriculture is a key driver of deforestation.
- Private sector actors, wanting to be responsive to consumer concerns and anticipating future regulations, are establishing carbon standards for their products.
- Need to balance opportunities of carbon footprinting with many challenges: food security, open trade system, shared benefits in value chains

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Recommended Action

- Crucial that carbon standards are based on science
- Address agriculture specific issues
- Beyond carbon: LCA of embedded water
- Preferably, international standards are derived to ensure harmonization
- In the absence of such international consensus, be mindful of WTO obligations
- Sound and pragmatic carbon standards can play a role in climate change mitigation while safeguarding adequate food and agricultural production

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Thank you

For more information, view the proceedings of the

IPC Seminar on Carbon Standards in Agricultural Production and Trade

October 2010, São Paulo, Brazil

http://www.agritrade.org
email: agritrade@agritrade.org