Counting Carbon in the Market Place - Certification to Product Carbon Footprint Standards and the Possible Trade Implications

Bolwig, Simon

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Counting Carbon in the Market Place – Certification to Product Carbon Footprint Standards and the Possible Trade Implications

Simon Bolwig, Risø, Technical University of Denmark

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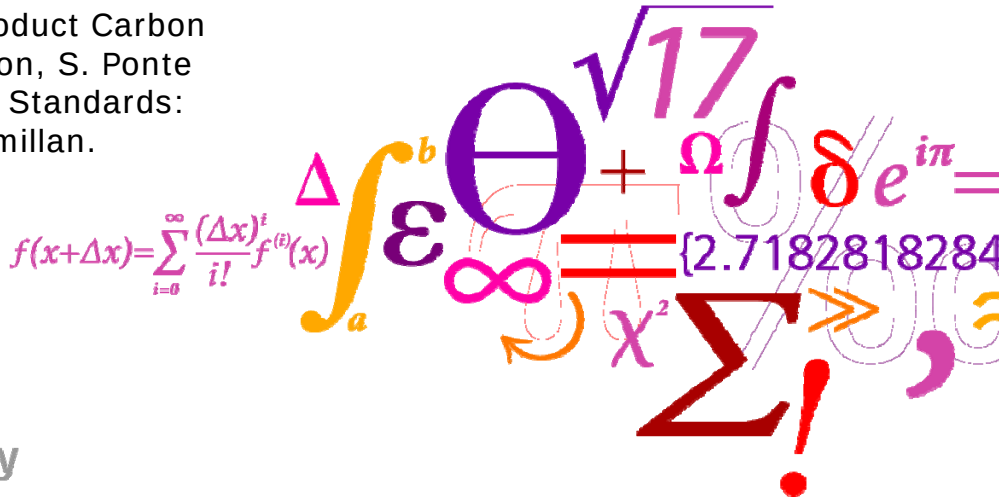

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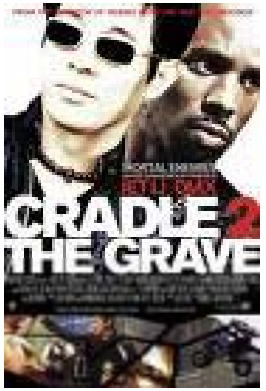


1. What is a product carbon footprint?

- **Information about the total amount of GHGs emitted during the life cycle of a good or service**
- **Grams CO2-eq. per unit of product**
- **“Consumption” approach to climate change mitigation (vs. regulation at source)**

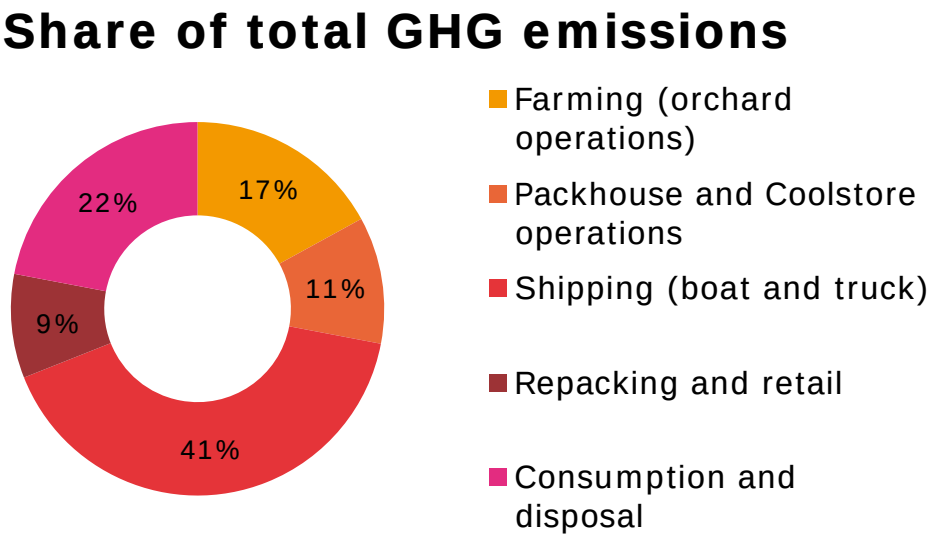
Life cycle analysis

- **Method for calculating the sum of GHG emissions from activities along the entire life cycle of a product**
- **From “Cradle-to-grave” or “Farm-to-fork”**

Source: www.zespri.com

- **Requires provision of information from many actors along the value chain (>< corporate GHG reporting)**

The carbon footprint of a New Zealand kiwi fruit eaten by Adam in Zanzibar

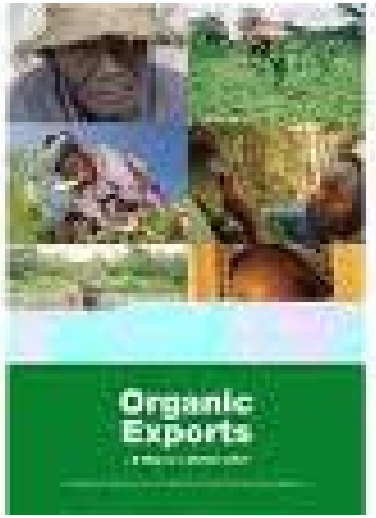


Data source: www.zespri.com

Total footprint: 1.74 kg CO2 Eq. per 1 kg of fruit

Some research questions

1. What is the function of PCF?
2. Is PCF demanded by consumers, clients and investors?
3. What standards and certification schemes are being developed, and by whom?
4. What are the features of these standards and schemes?
5. Do these features disadvantage certain producers or countries – small, distant, developing?
6. Do they create barriers to trade?



What can PCF be used for?

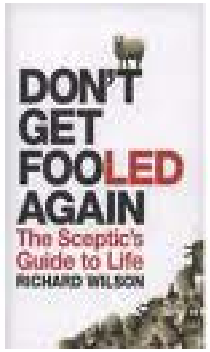
- **Help prioritise GHG reduction efforts along the entire supply chain**
  - Zespri Kiwifruit focuses reduction efforts at the orchard, packhouse, coolstore and transport stages
- **Compare the footprint of "similar" products delivered by different supply chains**
  - Broccoli imported to Sweden from Ecuador has a similar PCF to those imported from Spain
- **Compare the footprint of "similar" products with different attributes**
  - The footprint of a 330 ml can of Coke is half the size of 330 ml delivered in a glass bottle (Coca cola PCFs)

(Cont'd)

- **Designate products as "carbon neutral" through off-setting**
  - The "CarboNZero" and "Stop Climate Change" schemes
- **Basis for demonstrating corporate commitment to climate change**
  - To consumers, clients, investors and lawmakers
  - Display of information on packaging, websites, CSR reports

Will product carbon information influence consumer behaviour?

- **72 % of EU consumers support mandatory carbon labelling**
- **Eco labelling is important for 47 % of EU consumers**
- **48 % of EU consumers mistrust producers' environmental claims**
- **Environment ranks 3rd after quality and price in purchasing decisions**



What sells a beer in Japan?

CO2 Labels Proposed for Beer Cans by '09

Will product carbon information influence client and investor behaviour?

- Climate-change criteria do not appear important for corporate buyers
- They do not appear important for company valuations or for investment portfolio managers
- *But perceptions in business communities are changing fast*

2. Public PCF standards initiatives

- **PAS 2050 – BSI and Carbon Trust (Oct. 2008)**
- **ISO 14067(2011)**
- **WRI-WBCSD Product Life Cycle Accounting and Reporting Standard (2011)**
- **Japan Carbon Footprint System (April 2009)**
- **Mandatory carbon labelling in France**
- **EC initiative to integrate PCF in existing environmental labelling instruments (2009–11)**
  - *"EC is considering the preparation of a robust, reliable and EU harmonised PCF methodology"*

3. Private PCF standards and schemes

- **Private organisations calculating and certifying PCF information**
- **Operated by consultants, NGOs, retailers and branded manufacturers**
- **First schemes emerged in 2007**
- **17-20 schemes worldwide**
- **> 3000 footprinted products**
  - Carbon Label Company (UK): 2800 products
  - L.Eclerc (France): 800 product categories
  - Wide product range, mainly food/drinks

Certification criteria

- **Comply with rules for calculating the PCF**
- **Comply with communication rules**
- **Commitment to GHG emission reduction**
- **Carbon neutrality through offsetting emissions**
- **Comply with other environmental criteria (e.g. recycling)**

Value

Claim

Value and sliding scale

Methodology

- **Publication of PCF methods and assessments**
  - Most schemes rely on published methodologies
  - 3 schemes use the PAS 2050, adding own criteria
  - Few publish individual product assessments
- **Scope of product GHG assessments**
  - All schemes claim to include all major GHGs
  - Most involve “full” life cycle analysis – but precise boundary unclear
- **Use of different methodologies, combined with poor documentation of methodology and individual assessments**
  - No basis for comparison of PCFs across products and schemes

Conformity assessment (verification)

- **Most operators certify products to their own standard**
  - Disincentive to tightening the standard
  - Standards compliance difficult and costly for producers

- **Consumer scepticism is not taken seriously**
  - Self-verification by scheme user (4)
  - Same organisation calculates *and* verifies the PCF (3)
  - Independent, 3rd party verification (7)
  - Verification rules and procedures often not transparent

4. Possible implications for trade and DCs

- Lack of **international standard** could favour producers in countries with public standards (UK, NZ, France?) or with non-proprietary private standards (Germany, Switzerland, UK, US)

- No bias against producers in **distant countries**, but “distance travelled by product” sometimes highlighted as an additional feature

- High initial **costs and technical requirements** of PCF could disadvantage small producers and producers in developing countries (scale economies important)

(Cont'd)

- Emissions from the production of capital goods are sometimes excluded from the LCAs, imparting a bias against **labour-intensive production systems** typical of many sectors in developing countries (esp. agriculture)

- Unavailability of **LCA databases and expertise** in developing countries makes PCF relatively costly and time consuming

5. Concluding observations

- **Consumers want more information on the climate impact of their daily purchases**
  - But will they understand, trust and act on this information?
- **More private schemes and labelled products, but still small scale**
  - Key issues: transparency, verification, data, comparability, costs
- **Increased engagement by governments and int. organisations**
  - Key issue is standard implementation – accessible, harmonised and comprehensive LCA databases, costs (especially for SMEs)
- **The Future of PCF?**
  - Steady but slow progress until LCA databases are further developed, costs go down and international standards are published and accepted


"WE'VE BEEN MOVING BACK TO 'BUY LOCAL,'" SAID MRS. EDWARDS, OUTLINING A TRADE POLICY THAT "ACKNOWLEDGES THE CARBON FOOTPRINT" OF TRANSPORTING FRUIT...
"I LIVE IN NORTH CAROLINA. I'LL PROBABLY NEVER EAT A TANGERINE AGAIN."
I HOPE THEY MAKE CHEMO-THERAPY DRUGS IN NORTH CAROLINA.
JOHN EDWARDS FOR PRESIDENT
FISH
PRODUCE
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