Food Miles vs. Comprehensive Life Cycle Analyses

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The global population continues to increase..

- 2008: 6.1 Bn
- 2025: 8.0 Bn
- 2050: 9.2 Bn

Source: UN
World F&V trade statistics

The global trade in food continues to increase.....
Quality, Safety and Legality

- Food must meet all aspects of Quality, Safety and Legality
- Comply with SPS Requirements
- Comply with US/EU/National Legislation such as in the EU...
  - MRL & residues 91/414/eeec
  - Marketing Standards 1148/2001
  - Traceability 178/2002
  - Harmful Organisms 29/2002
  - Control Systems 882/2004
Various Private Standards
Over the past 10 years an additional dimension has become extremely important and relevant;

Sustainability and the environment.
Various Carbon Footprint Labels

Plan A
Because there is no Plan B
Defining the carbon footprint in agriculture

The Carbon Trust has defined a carbon footprint as

“the total set of greenhouse gas emission caused directly and indirectly by an [individual, event, organisation, product] expressed as CO2e“

- Worldwide, agriculture as an industry is responsible for about 13.5% of all GHG’s

- CO2 the main GHG but...

- Methane : 23 x the global warming potential than CO2

- Nitrous oxide : 296 x the global warming potential than CO2

- Refrigerant gases have a greater warming potential thousands of times that of CO2
The Carbon Trust has defined a carbon footprint as “the total set of greenhouse gas emission caused directly and indirectly by an [individual, event, organisation, product] expressed as CO2e”
Labeling & LCA’s

- It is important that any labeling that is done contains accurate information.
- Vital that the each stage of the LCA is clearly identified, defined and emissions calculated.
- Appropriate weights need to be added to each stage to ensure a level apportioning of the emissions.
- Costs of carrying out LCA’s?
Some interesting facts

- According to Tesco & M&S the airplane logo had no effect on sales.
- FFV exports from SSA to the UK account for a maximum 0.1% of total UK emissions.
- Carbon footprint of roses produced in Holland is 5.8 times that of roses produced in Kenya.
- Carbon footprint of sea freighted NZ milk solids, apples and lamb sold in the UK is up to 4 times lower than that of locally produced UK equivalents.
- Ghg emissions from sea freighting NZ onions is lower than that associated with stored UK produced onions.
- Post harvest handling and refrigerated storage utilises a lot of energy and results in the release of ghg’s far worse than CO2.
- Current carbon dioxide emissions for developing countries on a per capita basis are far below the global average of 3.6 tons. The UK per capita emission is 9.2 tons and that of Africa, at 1 ton.
Policy issues

- Carbon labeling has been a private sector initiative & can be viewed as protectionist.
- Carbon emissions from airplanes and ships not captured in Kyoto so not under pressure to reduce; also emissions happen in international jurisdiction so nations not keen to take responsibility.
- However airlines and manufacturers are taking on initiatives to make fuel efficient engines and other steps to reduce their footprint.
- Copenhagen needs to capture these areas.
- Need to respect the need for equity and non-restrictive economic development in developing countries in the transition in line with Kyoto Protocol.
- Clean Development Mechanism and Carbon Credit Trading are instruments in place but do not really help mitigate the main issue.
Conclusion

Would a new CC agreement represent any opportunities to the standards?

- It could provide the basis for an international framework that would provide the legal basis for regulations & bring consolidation & sense to the plethora of private sector standards

- It would provide precise guidelines on emission reductions in international jurisdiction

- It would provide clear strategies on mitigation measures and ensure that global food security is not compromised nor are developing economies locked out of global trade.