Embodied carbon in agricultural trade from developing countries

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How can we (publicly and privately) achieve/ assess sustainability?

Sustainable product (and its processes)	=	Environmental footprint	+	Social footprint

Environmental footprint	→	Energy	Water	Carbon
Social footprint	→	Labour	Livelihoods	Economy

The future?

- What is international trade in food that is:
  - Low carbon
  - High sustainable development
  - High growth
  - Equitable for developing countries
- Some alleged results:
  - Meat from Namibia, pastoralists in Tanzania?
  - Huge drops in fruit availability in Europe?
  - No canned goods?
  - Fresh vegetables air-freighted from East Africa?
  - For retailers, more expensive iPods, chicken, etc.
- Where are the new business cases?

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Quick outline

- Standards:
  - Primer
  - Food
  - Carbon
- Trade insight: food miles
- Policy conclusions

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Standards: primer

- A great economic tool? For who?
  - Level; public v private, micro, macro, B2B, consumer-facing, labels
  - Incentives: WTP, streamlining supply chains, privatisation of legislation
- Emergence of new standards
  - Monitoring, Reporting, Verification (MRV)
  - Readjustment to supply chains, business models
  - Amplify existing inequalities

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Food standards

- Examples:
  - Public:
    - EU Food law – sets min/max for imports
  - Private:
    - GLOBALGAP
    - Farm to fork
    - Rainforest Alliance
- Drivers:
  - Food safety (BSE, Sudan-1)
  - Business: profit, outsourcing, risk management, information management
- Issues:
  - Food legislation is privately implemented
  - Private leads and public tries to keep up
  - Evolving private incentives for setting and complying
  - Proliferation, some harmonisation
  - Food is a standards leader

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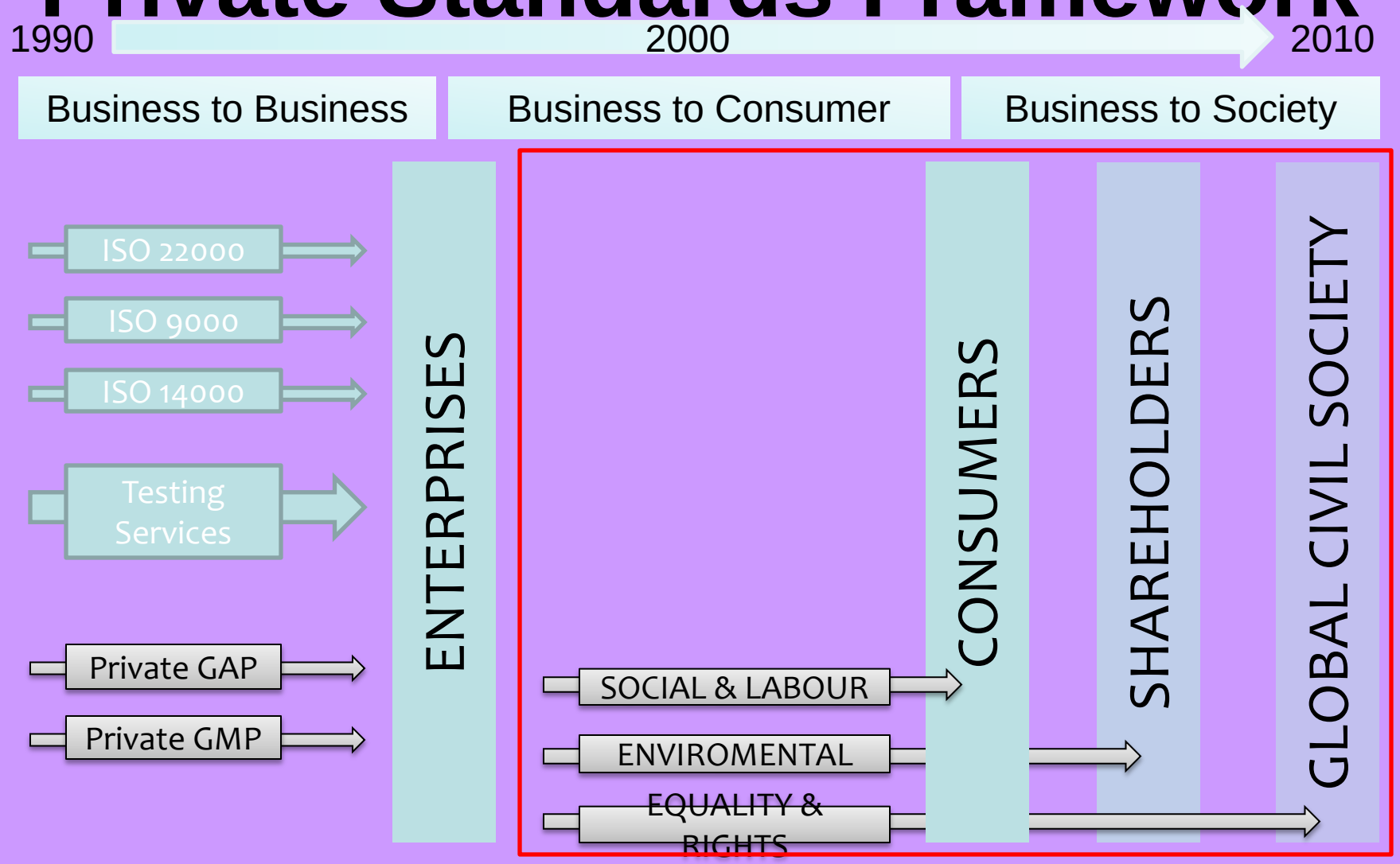
Private Standards Framework



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Food standards impact on developing countries through international trade

- More trade
- Fewer buyers
- Higher quality
- Stronger secure stable supply chains; co-investment, inclusive innovation
- Greater multipliers: skills transfer, food safety, productivity, local produce safer
- Costs include environmental, exclusion, snake-oil
- In sum, positive long-term development opportunities
- Potential to contribute to food security, livelihoods, rural economic development

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Carbon standard in theory

Ideally:

- **Uniform** way of calculating the embedded carbon
- Universally applicable to products - method and location of production
- Account for majority of embedded carbon within products
- Not favour certain production processes
- Recognised and trusted
- MRV
- Better market choices
- Competition rewards firms appropriately
- Reduces emissions, rids the worst offenders, identifies hotspots

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Carbon standards (UK)

- Examples
  - Public:
    - PAS 2050
  - Private:
    - Carbon Trust
    - Wal-Mart
    - PAS 2050
- Drivers:
  - PR – example of food miles
  - USP – Walkers crisps
  - Consumers – mixed, liars
  - Public declaration of carbon emissions not (yet) a business priority
  - Protectionism? USA
  - UK consumers – spreading to Switzerland (Migros Climatop)

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Issues on carbon standards

- How to measure? LCA, distance, energy?
- What to measure?
  - Boundaries/ parameters?
  - Carbon or all GHG?
  - Differentiation?
  - Driver – by quality or per kg
  - Timeframes for investment in supply chain and environment
- Another standard?
  - Linkages/ tradeoffs with other environmental & social standard
  - Another step to SD harmonisation
- Too early to tell but … stretches knowledge, science and economics = unlikely to be useful in ways that challenge both developed and developing agriculture to reduce emissions
- Developing countries:
  - Science says it should be positive
  - Past experience says it will be mixed at best

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Carbon Trust

working with the Carbon Trust

100g CO2

- Launched 2007
- Symbol to appear on retail sales with value £1.4bn
- Tesco to put on milk (30m pints/wk)
- Brands commit to reduction (MRV)
- Climate Change Act 2008 Carbon Reduction Commitment, a mandatory climate-change and energy-saving scheme /PAS 2050

- 1kg bag of Tate & Lyle's cane sugar has a carbon footprint of 380g

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Trade insight: food miles

Retailers' environment standards trump fair trade?

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Kenyan green beans: The epitome of (un)sustainable consumption?

Unsustainable?

- Carbon:
  - Air freight accounts for over 90% of FFV exports from Africa to UK
- Energy:
  - Kenya production> UK-grown
- Competition:
  - Displaces UK-produced low-distance-to-market crops

Sustainable?

- Carbon:
  - Kenya in credit
  - Accounts for less than 0.1% of total UK emissions of CO2
  - 90% in bellyhold (zero?)
  - Kyoto
- Economy:
  - Fast-track to development
  - Rural injection of £200m pa
- Social:
  - Over one million rural Africans are supported by UK consumption of FFV produced in Africa
- Competition:
  - Fills gaps in UK seasonality

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Will the next standard be development?

- Point of difference potential?
- Already sourcing
- Adding stories
- Can we ensure this is genuine and promotes upgraded benefits?
- Post-Copenhagen
- **How long before a legitimate development standard is crafted?**
- **Trade promoting or denuding?**

Policy conclusions

- **Carbon+** standards will proliferate, evolve, can this be leveraged for emissions reduction and to positively progress CC and trade
- **Climate + agriculture**: Post-Copenhagen – agriculture (REDD, soil carbon, development) central to the agenda
- **Recognise limitations** to public trade rules in defining market access for developing nations:
  - Private & public roles around food must be understood/re-assessed/ integrated
  - Trade compliance issues - Protectionism potential (US and food miles)
  - How to design trade rules that incentivise appropriate private incentives
- **Identify** what developing countries agricultural sectors really need:
  - Recognition of potential for low-carbon agriculture export-led growth
  - Productive skills and GAP transfer, marketing skills
  - Access to locally adapted appropriate technologies
- **Can carbon standards deliver?**
  - Emissions reductions? Efficiency? WTP?
  - Can carbon be a Trojan horse for wise development?
  - What trade rules can help here?

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