

Carbon Standards in Agricultural Production and Trade

Presented to the
International Food & Agricultural
Trade Policy Council (IPC)

Hasit Shah
São Paulo, Brazil
October 25-26, 2010
www.sunripe.co.ke



World trends

9.2 Bn

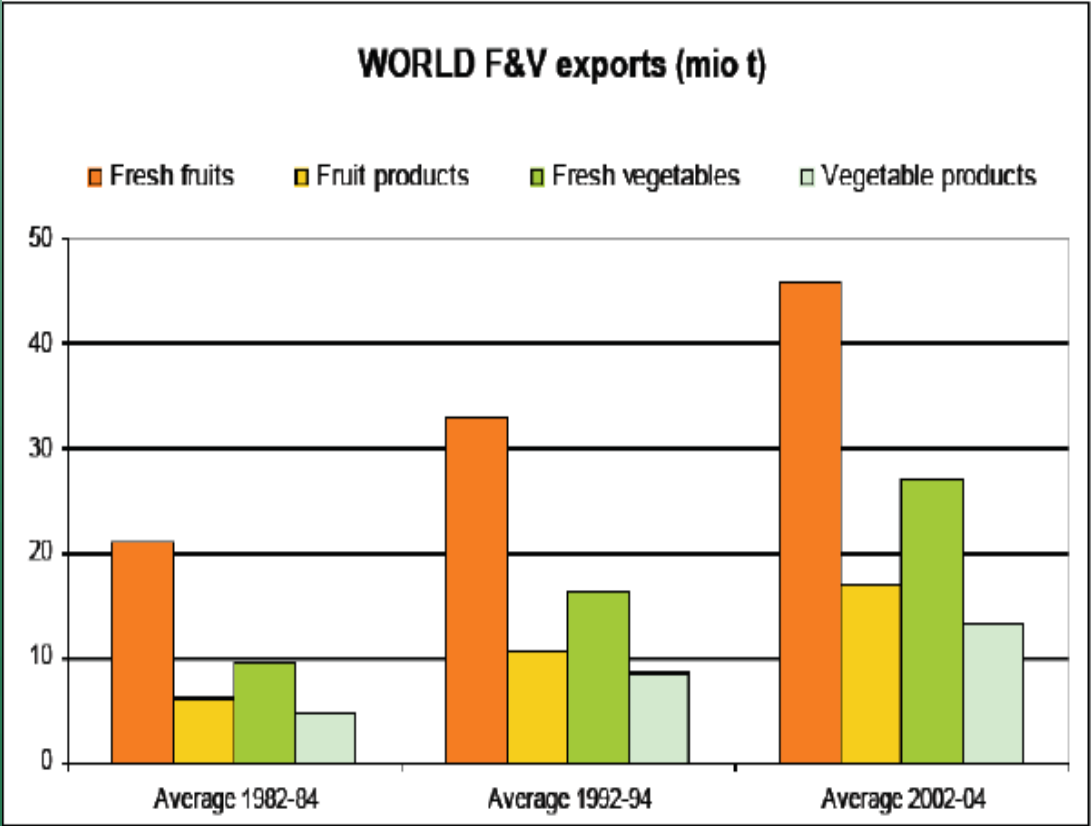
2050

8.0 Bn

2025

6.5Bn

2010



Source: UN

An idea of SOME private sector standards and requirements to trade



Helping communities to build a better future



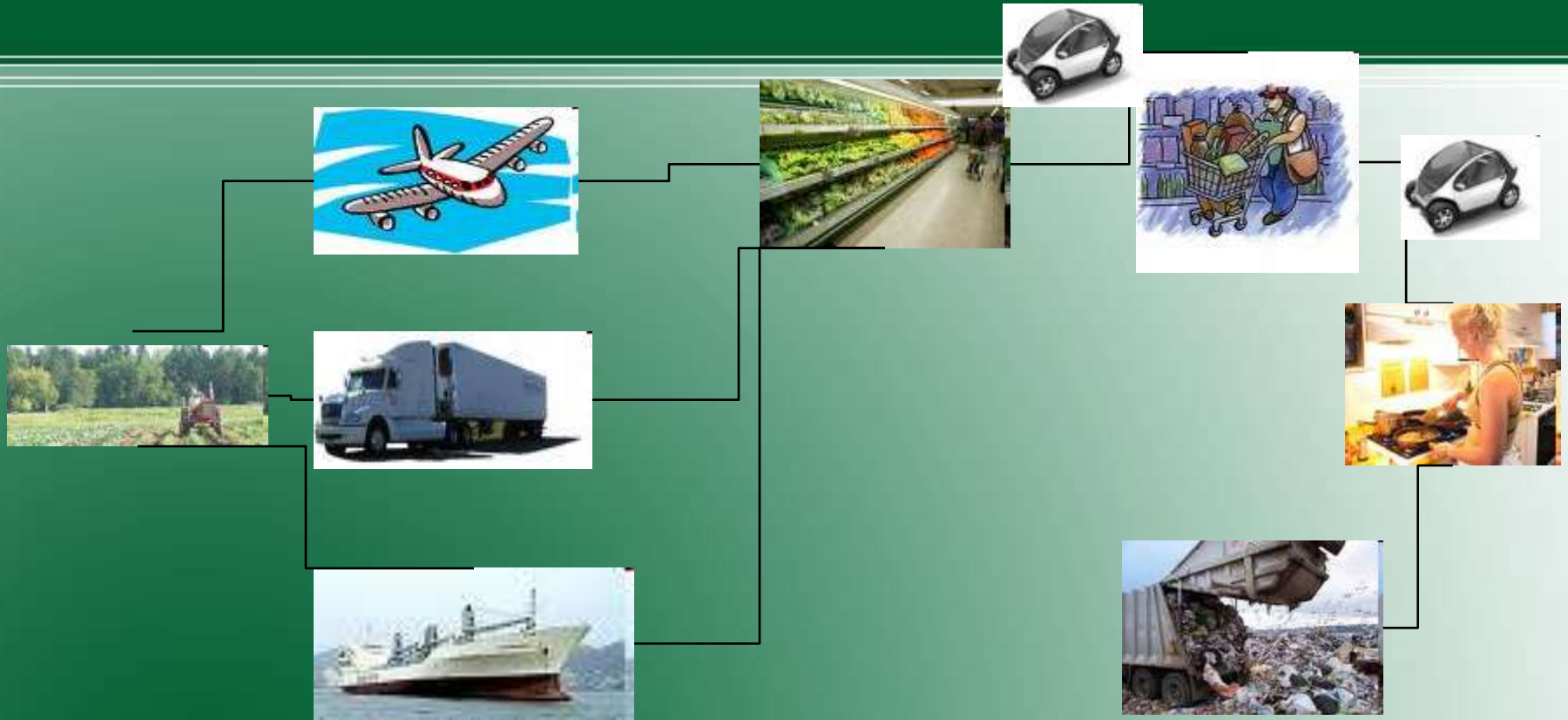
Various Labels



Plan A
Because there is no Plan B



Life Cycle Analysis

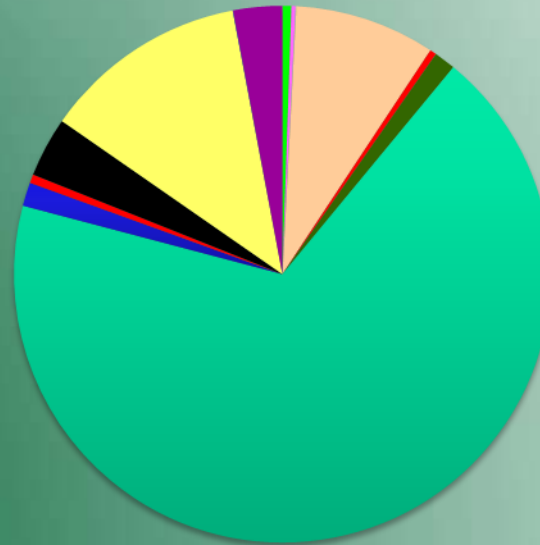


The Carbon Trust has defined a carbon footprint as

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

KENYAN GREEN BEANS TO UK- CFP

Source	Kgs CO2e	% Contribution
Fertilizer production	0.043	0.54
Infrastructure lighting	0.02	0.2
Water usage	0.003	0.04
Packaging	0.68	8.5
Inputs transport	0.0318	0.4
Product transport	0.104	1.3
Airfreight	5.47	68.1
RDC transport	0.114	1.4
Diesel	0.042	0.52
Irrigation	0.29	3.61
Soil N2O	0.993	12.4
Pesticides usage	0.0023	0.03
Cold storage	0.236	2.9
Total	8.03	



- Fertilizer production (0.54%)
- Infrastructure lighting (0.2%)
- Water usage (0.04%)
- Packaging (8.5%)
- Inputs transport(0.4%)
- Product transport(1.3%)
- Airfreight(68.1%)
- RDC transport(1.4%)
- Diesel (0.52%)
- Irrigation (3.6%)
- Soil N2O(12.4%)
- Pesticides usage(0.03%)
- Cold storage(2.9%)

Carbon emissions in horticulture

- CO₂ the main GHG but...
- Methane 25 x greater global warming potential than CO₂
- Nitrous oxide 298 x greater global warming potential than CO₂
- Refrigerant gases thousands of times greater than CO₂

Carbon standards and certification schemes

- Scope – Life Cycle Assessment, Product Carbon Foot prints (PCFs) and Carbon Labeling.

No Global Standard exists for Carbon Foot printing but since 2007 - 17 methodologies exist

- ◆ 1 public standard
- ◆ 2 public certification schemes
- ◆ 14 private certification schemes

National Standards: PAS 2050 (UK Carbon Trust), ISO, WRI (US), METI (Japan), GHG protocol, ADEME (France)

Supermarkets have their own, Leclerc, Casino, Migros

Issues

- All these standards vary & most of these methodologies have been developed for manufactured goods and not with agriculture/ horticulture in mind. Need to amend.
- PAS 2050 does not include employee travel while ISO 140-40, 44, 47, 48, 49 does
- Some include the full LCA from farm to disposal, others only to distribution depot
- Some include Land Use Change, others do not
- PAS 2050 does not account for Soil Carbon, Stored Carbon [for example in trees planted on farm] which could be used to offset the final footprint.

Issues continued

- For agriculture, the most appropriate software and database system to conduct a LCA & establish a footprint costs Stg 15,000- (Eco-invent). The software is not comprehensive and needs training on use.
- Data Collection costs money and requires trained, skilled individuals.
- Needs to be done annually as weather, soils, cropping changes.
- To be done across the board for a range of farms and all the crops.
- Databases are incomplete and CO₂e figures do not exist for many types of pesticides or Biological controls produced or used in Developing countries - & then the rule is to “use the worst case scenario”- works negatively around Kenya where we use low input agriculture but cannot evidence this

Benefits of standards ???

- Instruments for Hot spots identification and GHG reduction
- Guide the adaptation and implementation of GHG reduction strategies
- Identification of Cost saving opportunities
- Labeling – enhances product differentiation thus niche market for products
- Opportunity for carbon credits and offset schemes

In summary

- No direct interaction between standard setters and producers
- Lack of internationally accepted standard - Favours producers in countries with public national standards.
- Multiple standards and methodologies 17 - Confusion to Kenyan producers wishing to perform LCAs as we may have to go through a number of schemes
- Standards with different methodologies and databases - Most databases lack African figures
- High cost of LCAs- € 2500-6000
- Market access barrier to producers- *a de facto* standard
- Multiple schemes- confusion to consumers and producers

Summary continued

- Compliance burden to producers
- Variation in communication of information – different labeling schemes
- PAS 2050 only publicly available specification ... But, a bias against labour intensive production systems typical of Kenya and other developing countries
- A negative impact to investments if gaps not addressed.

Conclusions

- The demand and subsequent global trade in horticultural produce will continue
- Standards will have a higher degree of credibility with consumers
- Carbon standards are here to stay and as manufacturers in developed countries develop their footprints, then quite simply developing countries will have to follow suit.
Therefore..,
- An International standard & comprehensive databases to be developed in a fair and transparent manner.
- Interaction of all players- important for sustainability
- The standard to be applied equitably across products, producers and countries and be affordable.....

To be continued “watch out for
the water footprint debate”

hasit@sunripe.co.ke

www.sunripe.co.ke