

Consumer sustainability and overseas markets

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THE AERU RESEARCH UNIT

The Agribusiness and Economics Research Unit at Lincoln University has more than 45 years research experience.

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Aim: Maximum return from the sustainable use of resources in NZ



How Important is Trade to NZ?

- Exports account for a third of our annual income
- Compared to 8% in the US & 30% in the UK
- Land-based products account for 70% of this trade
- Most of this trade is with developed countries
- Trade access important for NZ and value of exports

NZ in the World

NZ production is small compared to the world
NZ built on exports to UK in meat and milk and diversified to supply other markets
Concentrates upon high value exports
NZ fall in ranking in OECD due to reliance on agricultural exports
Main chance of staying a developed country is high value sustainable agricultural exports

NZ Brand

- NZ does brand itself as Clean and Green
- 100% pure – used by tourism
- Other brands also important such as Zespri and Anchor
- Generally surveys overseas show positive reaction to NZ brand
- Need to maintain this to access high value premium markets

Risks and Opportunities for our Exports

- To access premium market segments have to consider sustainability including social & environmental factors
- Often these are defined by overseas markets
- We have to ensure these factors are defensible and not pseudo
- Food miles ignores production resource use

Dairy and Lamb – UK versus NZ

- NZ uses under half energy than the UK does
- Even when methane and nitrous oxide included the UK produces 34% more GHG emissions per kgMS and 30% more per ha
- NZ is 4 times more energy efficient than the UK in lamb production

NZ and UK Production

- Food miles report assumes UK could replace supply at same intensity
- NZ supplies 18% of sheepmeat; 13% butter and 58% apples; of UK supply
- To replace this would require increase in UK production intensity and consequential environmental damage which the CAP reforms are ameliorating

Carbon Footprinting Methodology

- Food miles recognised as flawed concept
- Retailers and others now carbon footprinting
- Keen to develop standard methodology
- DEFRA, Carbon Trust and BSI have done this
- PAS Publically available standard
- Offsetting not allowed and reduction is key
- WRI also developing standard with ISO

Carbon Footprinting

- 15 schemes implemented world wide
- UK Carbon Trust in 2006 did 3 products
- Tesco in 2007 said they would do all 70,000 products (done 6 product lines) Now moving scheme into South Korea
- Tesco committed to reduce carbon by 30%
- Japan, Germany, Thailand, Sweden and Switzerland also have schemes.

Issues with Carbon Labelling

- Cost of carbon footprinting especially for developing countries and small suppliers
- Concern re: methodology and science
- Concern that a monopoly certifier will emerge
- Potential for acting as a trade barrier
- Unidimensionality of carbon footprint against other sustainability criteria
- Lack of understanding of the footprint

Sustainability & Market Access Issues

- Local food and seasonal consumption
- Lower meat and dairy consumption
- Ethical food - fair trade and organic!
- Biodiversity and wildlife
- Water quality and quantity
- Ageing Population
- Food waste

Local Food and Seasonal Consumption

- Growing demand for local food
- UK and US government promoting local food and food miles! (sausages from supermarket would have to travel 227,727 miles to have same footprint as those from local shop)
- Growth in local farmers markets, box schemes ect
- Seasonal consumption also may not be better for the environment
- Also consider wider sustainability implications
- Choice editing

Waitrose

- Waitrose will be the first supermarket to stock their own 100% British dairy products, and customers will be able to trace its provenance from farm to fridge
- This is great news for the cows and the British farmers and the environment. The cows are being raised in the lap of luxury. They are living in light airy barns, with clean beds of straw or a specially designed comfy mattress; nutritional advisors to ensure a healthy diet and pedicures- their hooves are regularly trimmed.

Who's Doing What

- Tesco's – Setting up 8 local source buying offices
- M & S –double regional food sourcing by 2012
- Sainsbury's source all food from sustainable sources
- ASDA – promote local produce, cut food miles and extend British growing season - increase British farmers from 2500 to 3500 and increase local food hubs

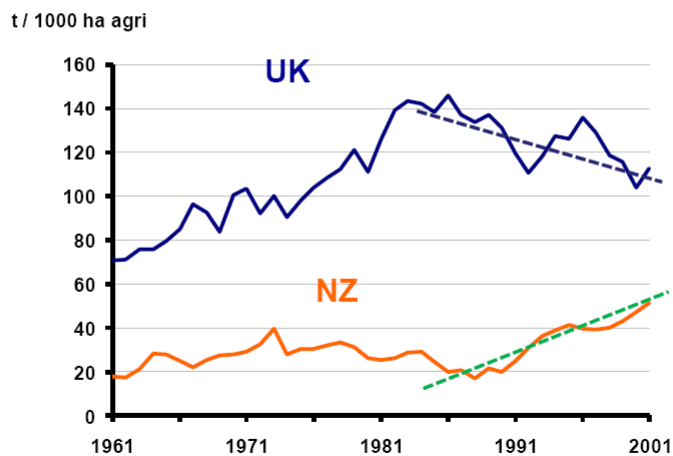
Lower Meat and Dairy Consumption Low Carbon Diets

- Demand for reduction in meat and dairy consumption (livestock 18% of worlds total)
- 'meat free Monday' Paul McCartney
- Ghent – meat free one day a week
- WWF meat should be labelled 1-3 tiems a week max
- NHS – reducing meat and dairy in diets

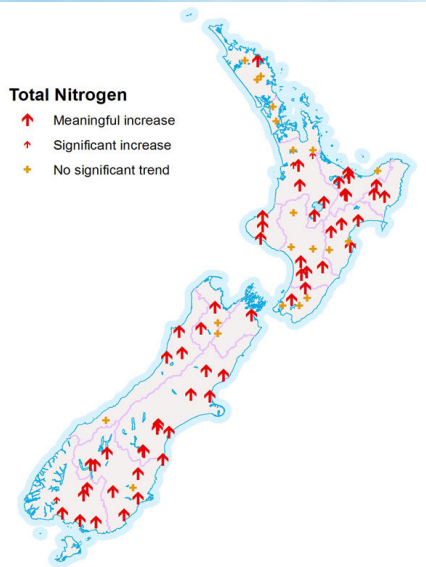
Water Quality and Quantity

- Water quality is growing issue
- In UK alone proposed 70% of land under NVZ
- In NZ vulnerable especially in Canterbury with growing conversion to dairy and nitrate pollution
- Increase use of fertiliser in NZ (nitrogen fertilizer use has increased 4-fold 1990-1995)
- Water Quantity is also a growing concern and part of many retailers targets. In NZ we use probably more water as less of a shortage but still an issue

Total Fertilizer Consumption 1961-2001



Increases in Groundwater Nitrates 1989-2007



ME, Our rivers: trends in water quality, 2009

Water Footprint Calculator

Based on your country of residence and your own consumption pattern, you will have a unique water footprint. Please feel free to use the footprint calculator to assess your own water footprint.

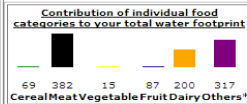
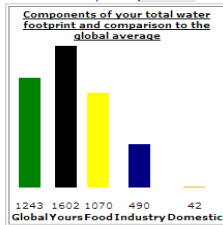
Country:

Sex: Female Male

Dietary habit: Vegetarian Average meat consumer High meat consumer

What is your gross yearly income? US\$ per year (Only that part of the family income consumed by yourself).

Your water footprint = in cubic meter per year



http://www.waterfootprint.org/?page=cal/waterfootprintcalculator_indv

Emerging Markets

- Considerable growth especially for livestock products (but much met by their own increase in production)
- One billion middle class in Asia, Latin America and central and eastern Europe
- Main change from small retailers to supermarkets and global procurement
- Eg China from no supermarkets in 1990 to 60,000
- Growth from western chains (Tesco Walmart) and these likely to require same standards of procurement for their other markets

Ageing Population - Seniors

- Account for fifth of food and beverage consumers and growing (\$741 US in 2006)
- Interested in health and functional foods
- Willing to change diets
- Functional foods estimated to grow by 56% 2008 to 2011

Food Waste

- UK 30 % of food wasted (60% edible)
- US 40 – 50% wasted



Other Countries being subsidies to met sustainability requirements

- EU Single Farm Payment – subsidises farmers to comply with environmental criteria and will include carbon footprinting (75bill euros)
- EU also pays extra for farmers for agri-environmental schemes to – (22 bill euros)
- EU pays to help comply with market schemes (92 million ecu)
- US – increase in conservation area (115 million acres)
- Increase in payments for working land conservation (US\$3.4 billion)

NZ Brand

- NZ levered off low population and natural scenery- Brand vulnerable however
- Other countries are catching up on market access including Chile, China and Uruguay has meat accepted by Global gap
- GlobalGap – incorporating gradually other countries schemes such as Thai Gap
- 80,000 producers in 80 countries
- Need to increase our sustainability credentials to maintain market access and premium prices

Conclusion

- Threats to trade changing from regulatory to 'access-to-market from retailers'
- This has been developing over time
- Carbon footprints are an example of this
- Not just EU markets it is spreading elsewhere
- However win-win more returns for exports and more sustainable production