

**Climate change, food and
health: What should the
public health response be?**

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Overview

- **Sensitising events**
- **Public health nutrition responses to climate change**
- **Fundamentals to a public health response**

Sensitising events

Record temperatures and heatwave conditions

Adelaide registers 1st heatwave since 1940

Adelaide has been officially declared to have had a heatwave this week.

Today is the fourth consecutive day the temperature has been above 40 degrees Celsius.

The last time that happened was in 1940.

The weather bureau in South Australia says it is a heatwave if the temperature is at or above 40 degrees for three days in a row or if it is at or above 35 degrees for five days in a row.



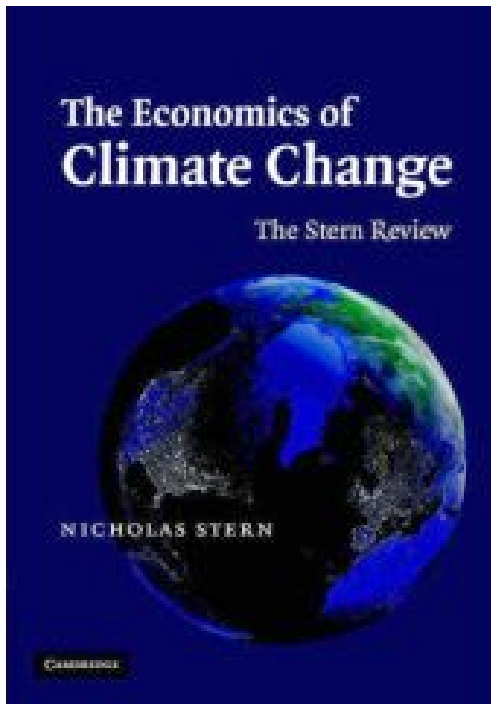
Seven year drought



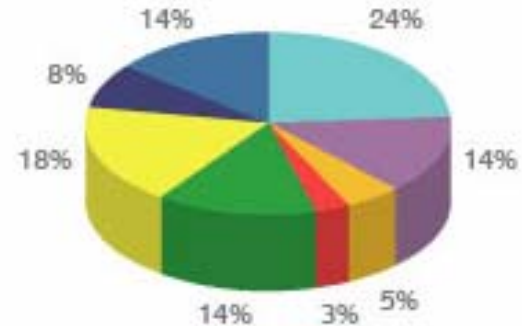
Fuel Prices



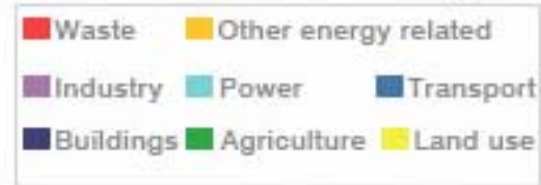
The Stern Review (HM Treasury)



GLOBAL EMISSIONS BY SECTOR



Total emissions in 2000: 42 GtCO₂e



SOURCE: Stern Review

Sir Nicholas Stern suggests that global warming could shrink the global economy by 20%.

Tony Blair said the Stern Review showed that scientific evidence of global warming was "overwhelming" and its consequences "disastrous".

Family Budget



Public Health Nutrition responses to climate change

Public Health Nutrition responses to climate change

- Rationalists
- Reductionists
- Radicals

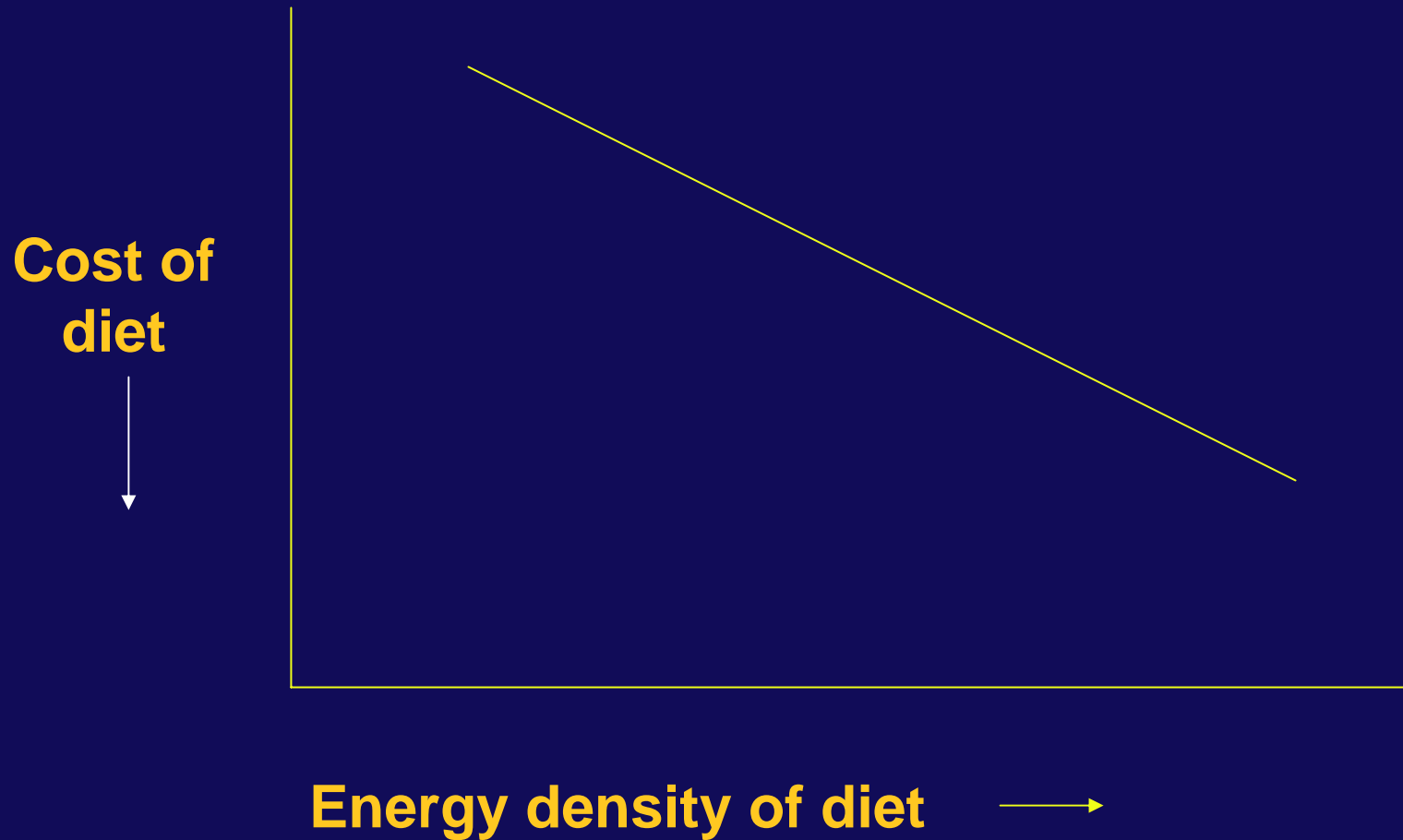
Public Health Nutrition responses to climate change

- Rationalists
 - Observe the socio-economic impact of climate change on the food supply
 - Recognise the [uneven] impact of the economic effects of climate change on the most socially vulnerable

Relationship between food costs and energy density

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Adam Drewnowski and others

Diet cost and energy density



Adapted from Drewnowski, et al AJPH, 2004

Food costs and energy density

Low food costs associated with high energy dense diets

UK (Cade et al, 1999)

France (Darmon et al 2004)

USA (Drewnowski and Darwon, 2005)

Energy density, diet quality and social gradient

*Low income families consume low cost,
energy-dense, nutrient poor diets*

Drewnowski hypothesis

Public Health Nutrition responses to climate change

- Reductionists

DIETARY GUIDELINES FOR SUSTAINABILITY

In 1986 the renowned American nutritionist Joan Gussow advocated that the Dietary Guidelines, which are based almost entirely on the relationship between food and human health, should be broadened to include the relationship between food and environmental health. Gussow urged an environmentally conscious application of the Dietary Guidelines, that is dietary guidelines for sustainability.¹ Gussow's concepts are outlined below.

The Dietary Guidelines for Sustainability

To incorporate sustainability into the framework of the Dietary Guidelines requires that foods be judged not only by their nutrient content but also by their source and method of production.

Public Health Nutrition responses to climate change

- Reductionists
 - Climate change is consequence of unsustainable food production practices
 - Seek to promote sustainability

Reductionists

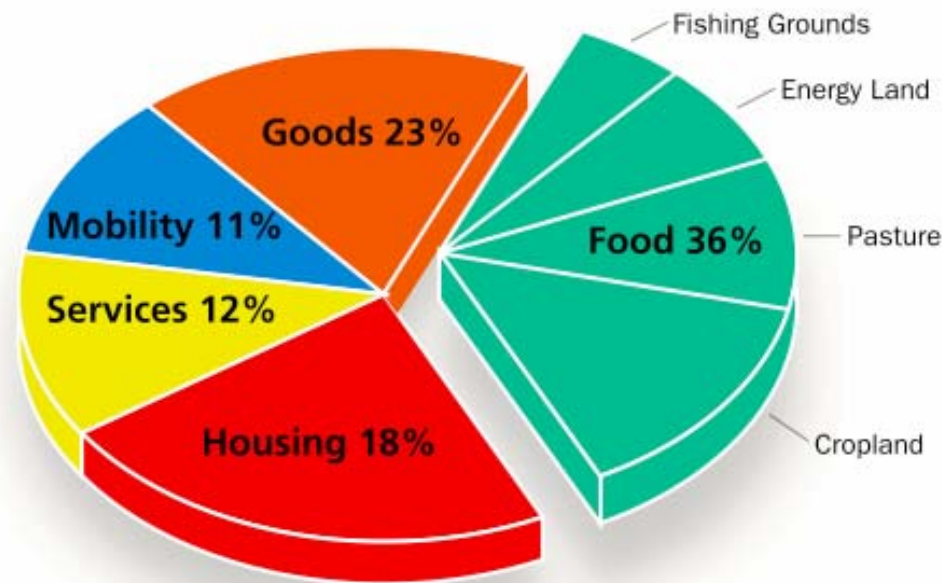
- Reduce distance from producer to consumer
- Reduce mass processing of food
- Reduce 'ecological footprint'

Reductionists

- Reduce distance from producer to consumer
 - Limit food miles
(av. US food item travels between 2500-4000km)
- Reduce mass processing of food
 - Eat more unprocessed foods
 - Eat mainly local and seasonal foods
(7kcal of fossil fuel energy = 1kcal food energy)

Reductionists

Reduce ecological footprint of food



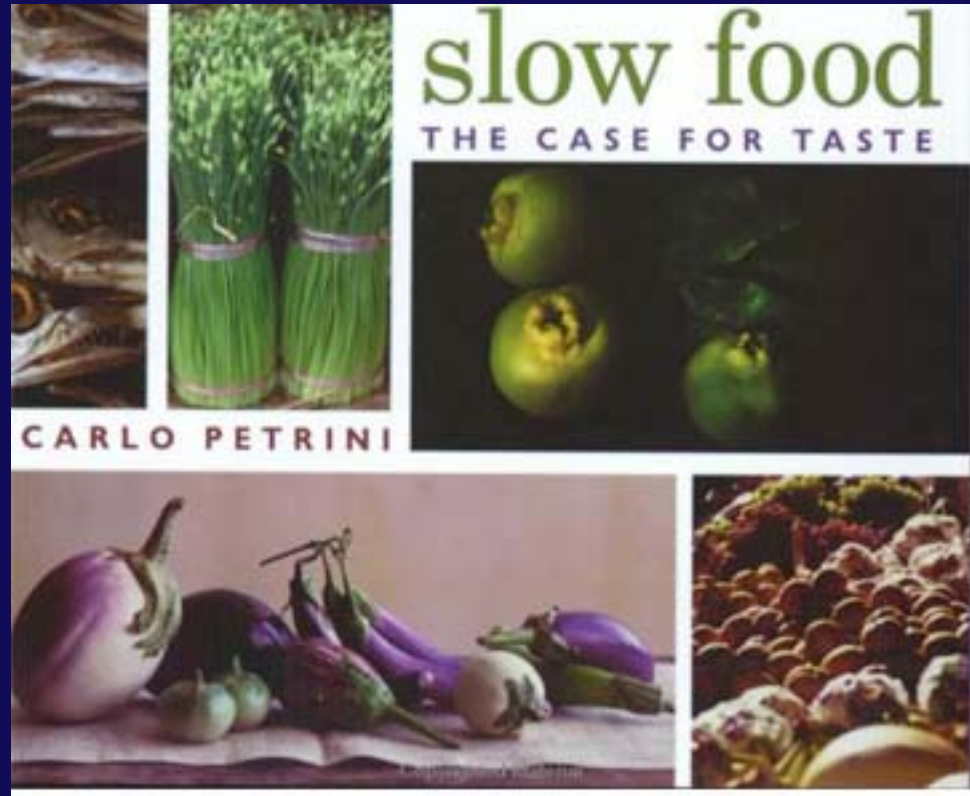
*Energy Land refers to the amount of land required to sequester (soak-up) the carbon dioxide emitted as a result of our use of energy.

Figure 1: The SA footprint by consumption type

Source: Department of the Premier and Cabinet¹

Reductionists

Public health and gastronomy



Public Health Nutrition responses to climate change

Radicals

Public Health Nutrition responses to climate change

- Radicals
 - Critique of food productionism
 - Monopolies vs democracies
 - Civic society and a collective response

Food Productionism

Agricultural inputs

Eg fertilisers, pesticides, vet drugs

Primary production

Eg farmers, fishers, etc

Primary processing

Eg on-farm, dairies, abattoirs, mills

Secondary processing

Eg Canning, freezing, drying, brewing

Packaging and distribution

Eg national/international

Productionism and Consumptionism

**What is the relationship
between climate change and
obesity epidemic?**

Climate change and obesity

- Both are a result of energy imbalance
 - Climate change is the environmental response to inappropriate use of energy
 - Obesity is the physiological response to inappropriate use of energy
- A ‘Consumptogenic’ environment: an environment that promotes the over-consumption of a range of goods and services to the detriment of population [and environmental] health (Banwell, Dixon, Hinde)

- Radicals

- Food democracy and food control
- Food choice and human liberty

Public Health Nutrition responses to climate change

- Rationalists
- Reductionists
- Radicals

Public Health Nutrition responses to climate change

- Rationalists
 - Eg food costs
- Reductionists
 - Eg food miles
- Radicals
 - Eg food choice

Competing authorities

Competing 'expert' voices - a lack of confidence in authority

Sir Liam Donaldson



St Jamie Oliver



Fundamentals for food futures

- Trust and trustworthy
- Authoritative not authoritarian

Trust and Food



- Trust is integral to food choice
- Trust was damaged by:
 - Negative media reporting
 - Misleading food advertising and promotion
 - Exaggerated claims about health and well-being
- Need for visible monitoring and surveillance
- Need for a visible authoritative presence and voice
- Trust is easy to lose, hard to win

Authoritative not Authoritarian

- Knowledgeable and user-friendly
- Respectful of existing knowledge
- Accommodates consumers concerns
- Cautious in the face of the unknown

Conclusions

- A world of unknown risks and unknown certainties
- Daily reporting of disasters
- Climate change is another reported disaster
- How do we turn the public 'on', without turning them 'off'?