



UCD Institute of Food & Health

Mike Gibney

ETP 2010 conference
Healthy Eating Workshop



Food for Health

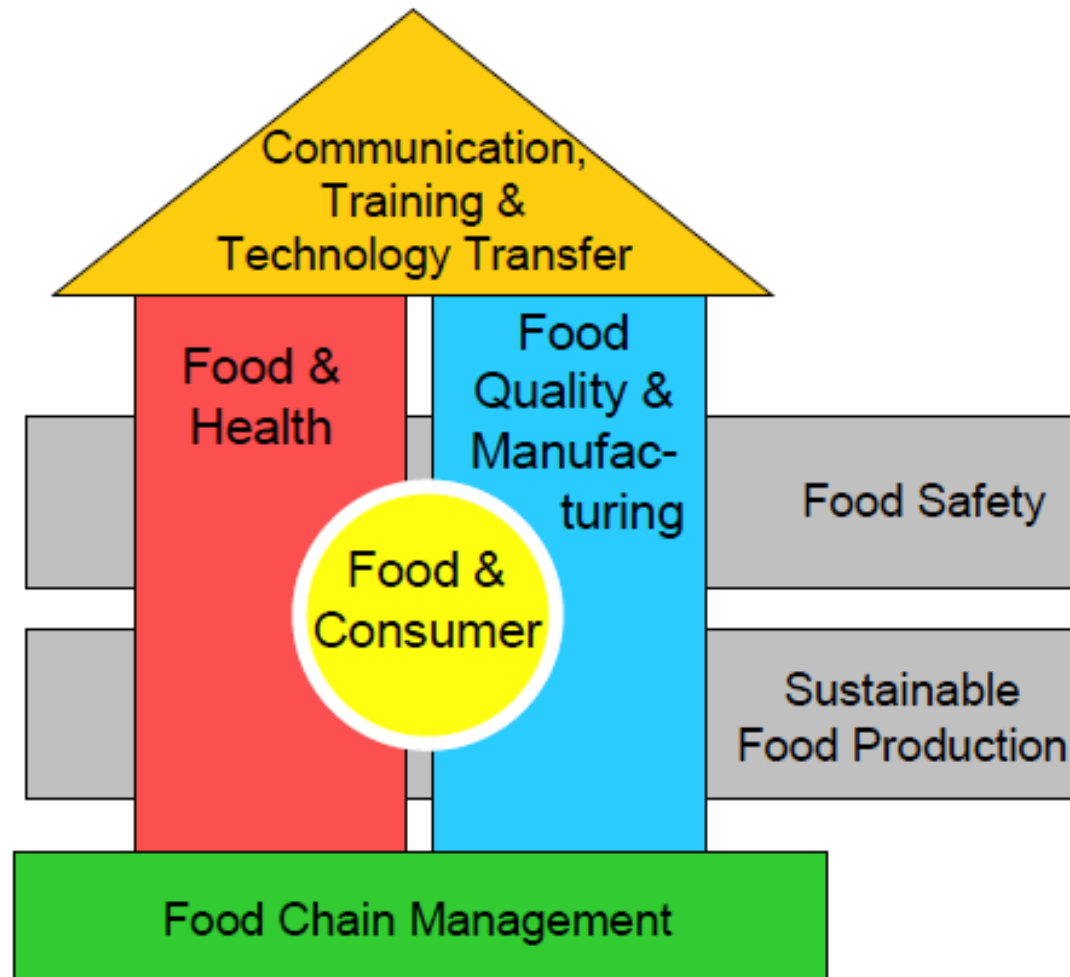
This Conference will

Working together on key areas of common interest that contribute, in terms of R&D activities, to tackle particular societal challenges.

- **Extending their activities to issues related to innovation and the demand side**
- **Speakers should be open to interdisciplinary debate**
- **Not a business as usual perspective**
- **Focus on the challenge**
- **How to engage with other ETPs**



European Technology Platform Food for Life



**Water &
Energy**

**Personalised
Health**

**Food
& Health**

**Ageing
well**

**Zero
Waste society**



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The perfect storm ~ Food security 2050

From 6.5 to 9.5 billion by 2050

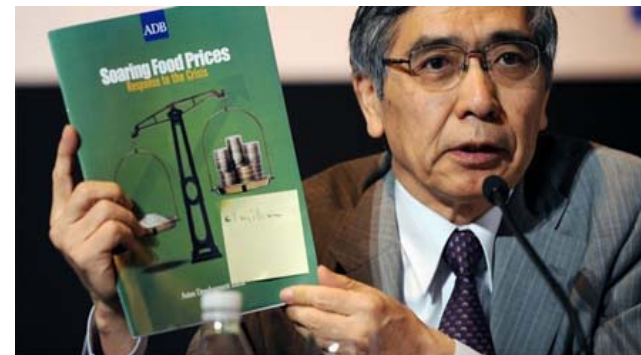
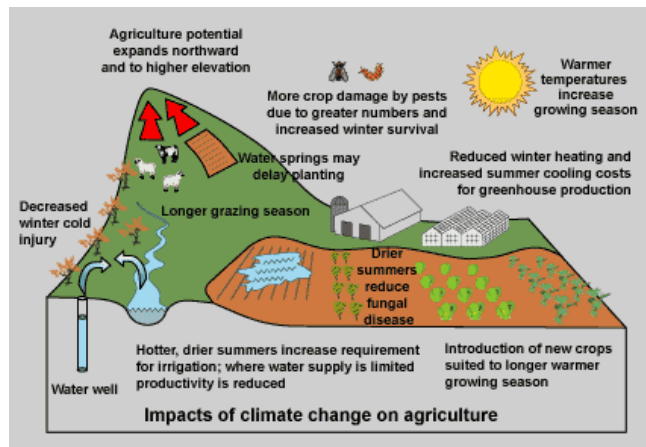


A 20% fall in food output is likely

The water crisis will happen first

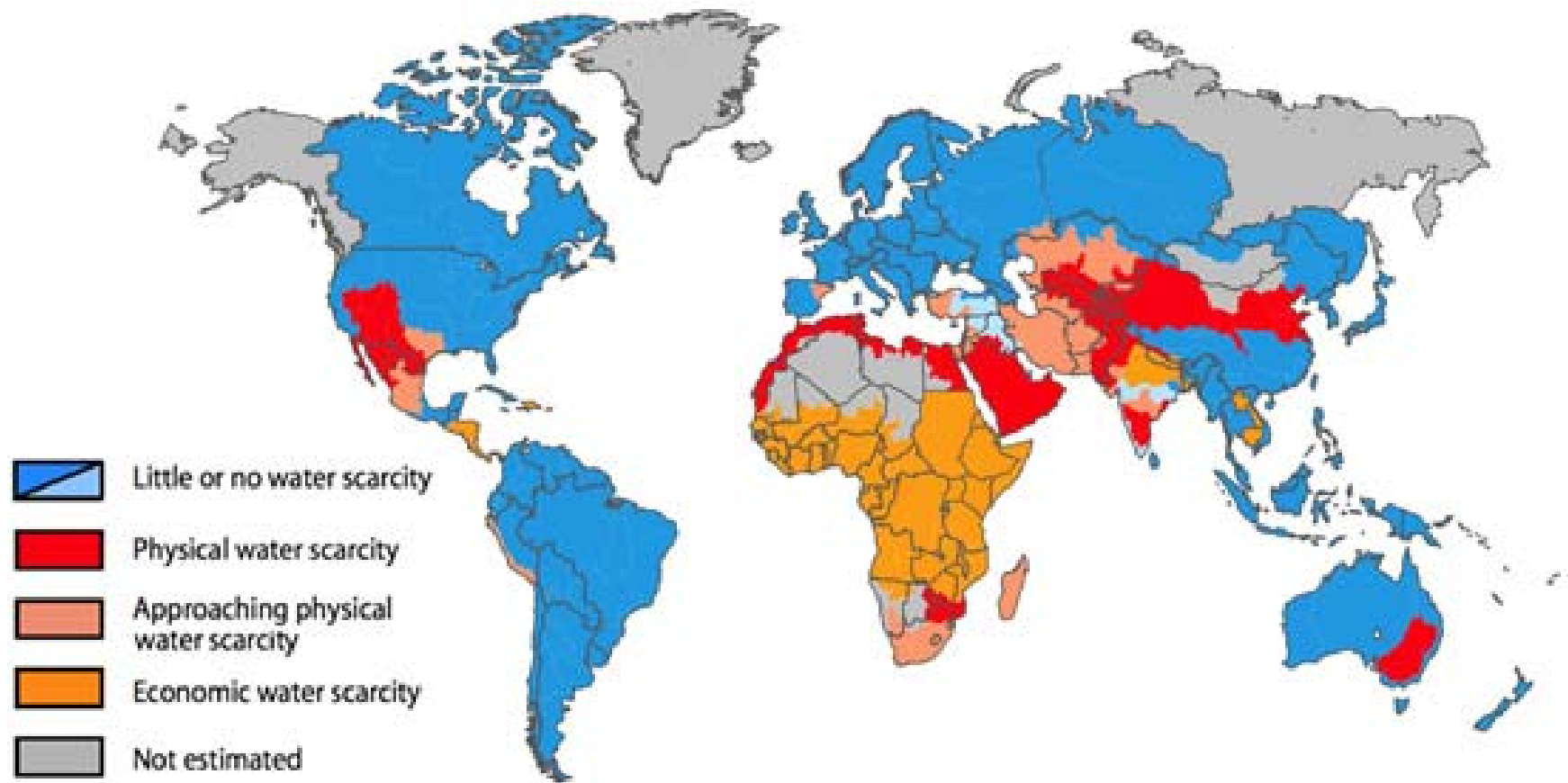


Rising economies = rising food prices



Haruhiko Kuroda, president of the ADB shows the ADB's report on Soaring Food Prices during the ADB's 41st annual board of governors meeting in Madrid, on Sunday.

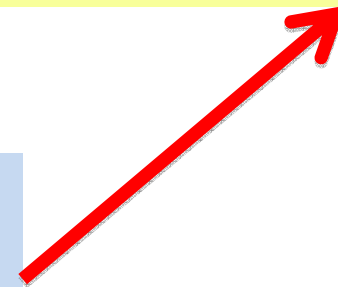




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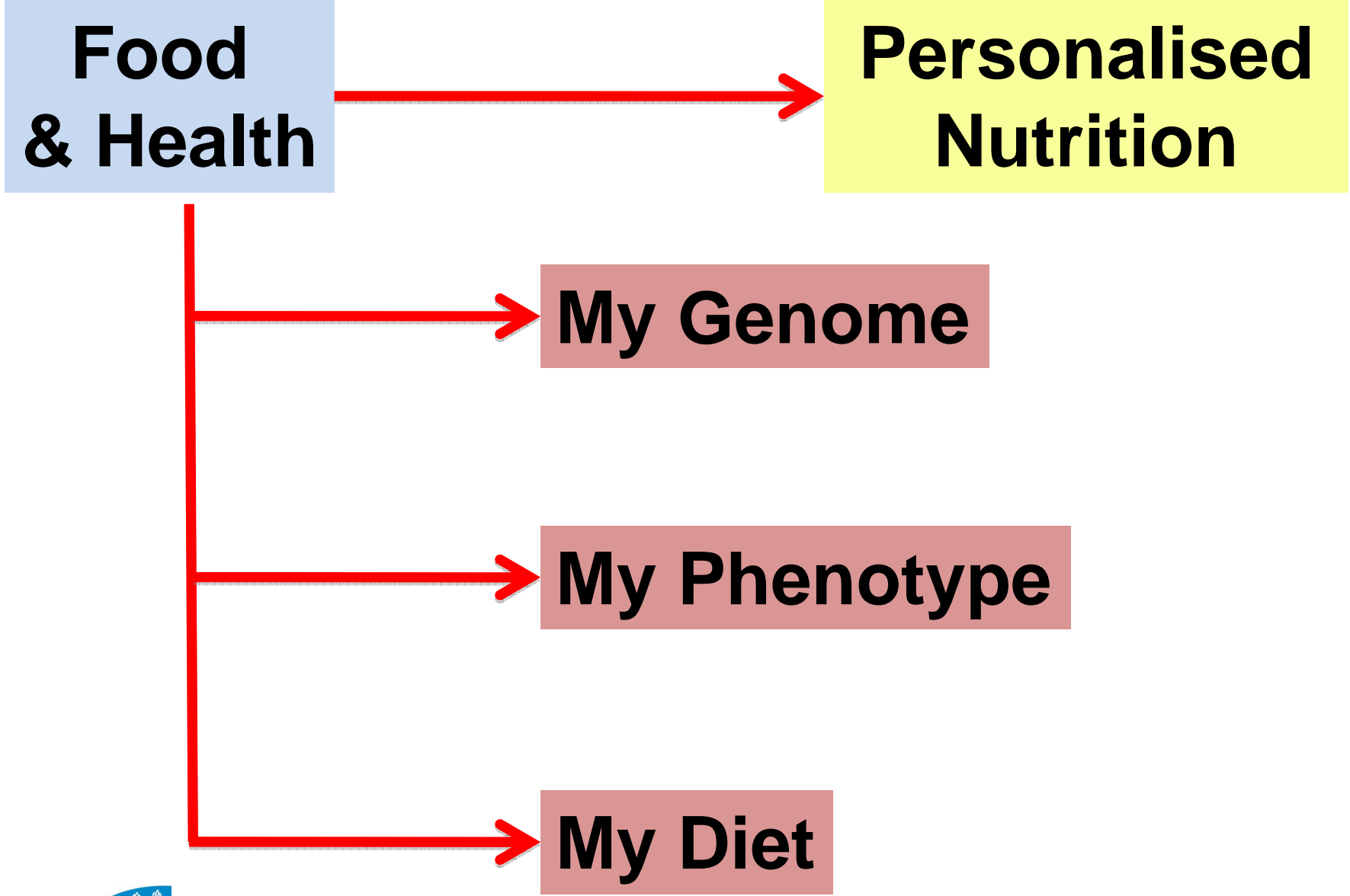
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Bio-feedback gadgets



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European Parliament resolution of 25 September 2008 on the White Paper on nutrition, overweight and obesity- related health issues (2007/2285(INI))

The European Parliament....Having regard to.....Whereas (a0 to (z)....

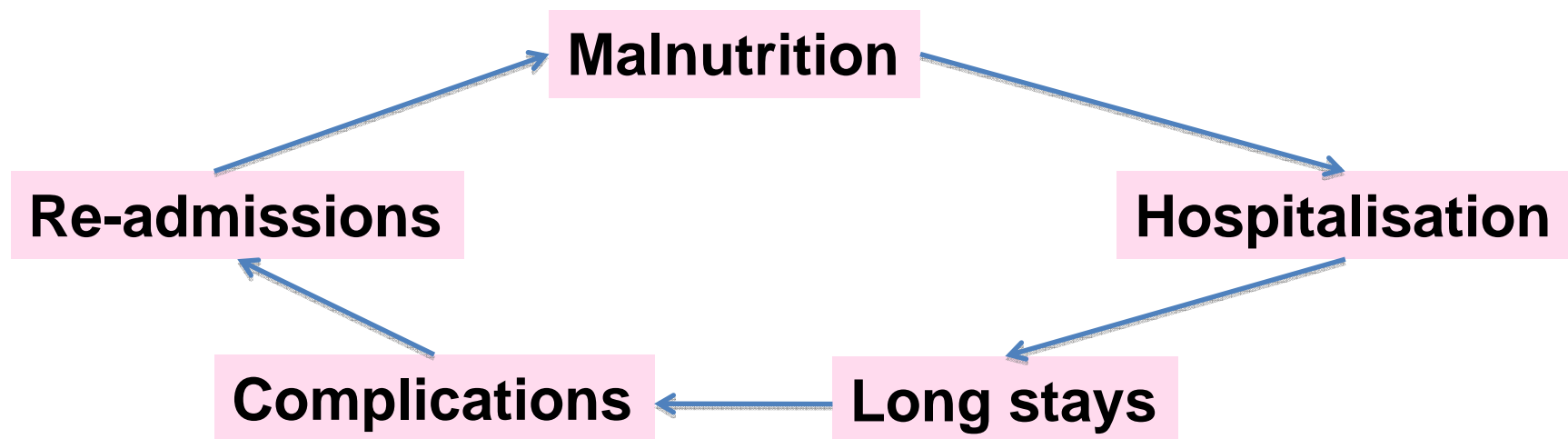
(z) whereas malnutrition, which particularly affects older people, costs European healthcare systems similar amounts as obesity and overweight



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Engineering Alertness

AIM: Develop a technology platform and training programme to support the improvement of attention alertness and focus in mature adults.



Research Background

- Declines in attention can lead to accidents, falls, and other negative consequences for elderly adults. Home based technology supports may provide an effective intervention.

Research Questions

- Can self reported states of attentiveness and alertness be improved through technology supported home based coaching?

Research Activity

- In home mindfulness/attention training and coaching program
- Prototype Mobile biofeedback system use for biometric data capture and attention feedback



Telephone Cognitive Assessment

AIM: Develop an automated system for remote assessment of cognitive function using analysis of vocalisation, speech markers and mood.



Research Background

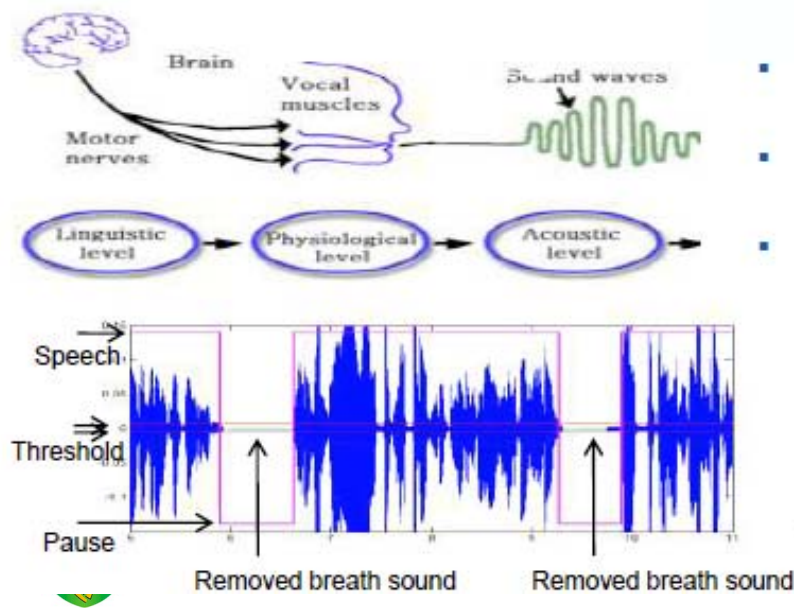
- Speech may provide a cost effective, easily implementable means of monitoring and assessing cognitive function

Research Questions

- Can the status of one's cognitive function be related to acoustic properties of speech?
- What is the protocol for successfully administering clinical cognitive assessments, remotely?

Research Activity

- Older people participate in various cognitive assessments while at home via the telephone.
- An Interactive Voice Response (IVR) system, conducts the assessment automatically.
- Analysis of the participants' speech is conducted for correlations to cognitive function.



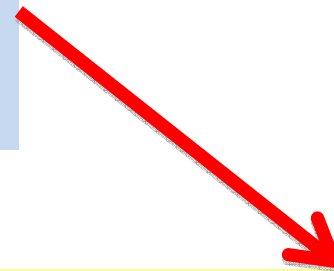
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EUROPEAN
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Community Research

A bright green Bio-economy by 2020

**BECOTEPS meeting
9 February 2010**

Maive Rute

Director Food, Agriculture and Biotechnology

Directorate-General for Research

European Commission

Food, **A**griculture and **F**isheries, and **B**iotechnology
K N O W L E D G E - B A S E D B I O - E C O N O M Y (K B B E)



The Progressive Increase of Food Waste in America and Its Environmental Impact

Kevin D. Hall*, Juen Guo, Michael Dore, Carson C. Chow*

Laboratory of Biological Modeling, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Maryland, United States of America

Abstract

Food waste contributes to excess consumption of freshwater and fossil fuels which, along with methane and CO₂ emissions from decomposing food, impacts global climate change. Here, we calculate the energy content of nationwide food waste from the difference between the US food supply and the food consumed by the population. The latter was estimated using a validated mathematical model of metabolism relating body weight to the amount of food eaten. We found that US per capita food waste has progressively increased by ~50% since 1974 reaching more than 1400 kcal per person per day or 150 trillion kcal per year. Food waste now accounts for more than one quarter of the total freshwater consumption and ~300 million barrels of oil per year.

Citation: Hall KD, Guo J, Dore M, Chow CC (2009) The Progressive Increase of Food Waste in America and Its Environmental Impact. PLoS ONE 4(11): e7940. doi:10.1371/journal.pone.0007940

Wasted food in the US = 4% of US oil consumption

