



The need for sustainability

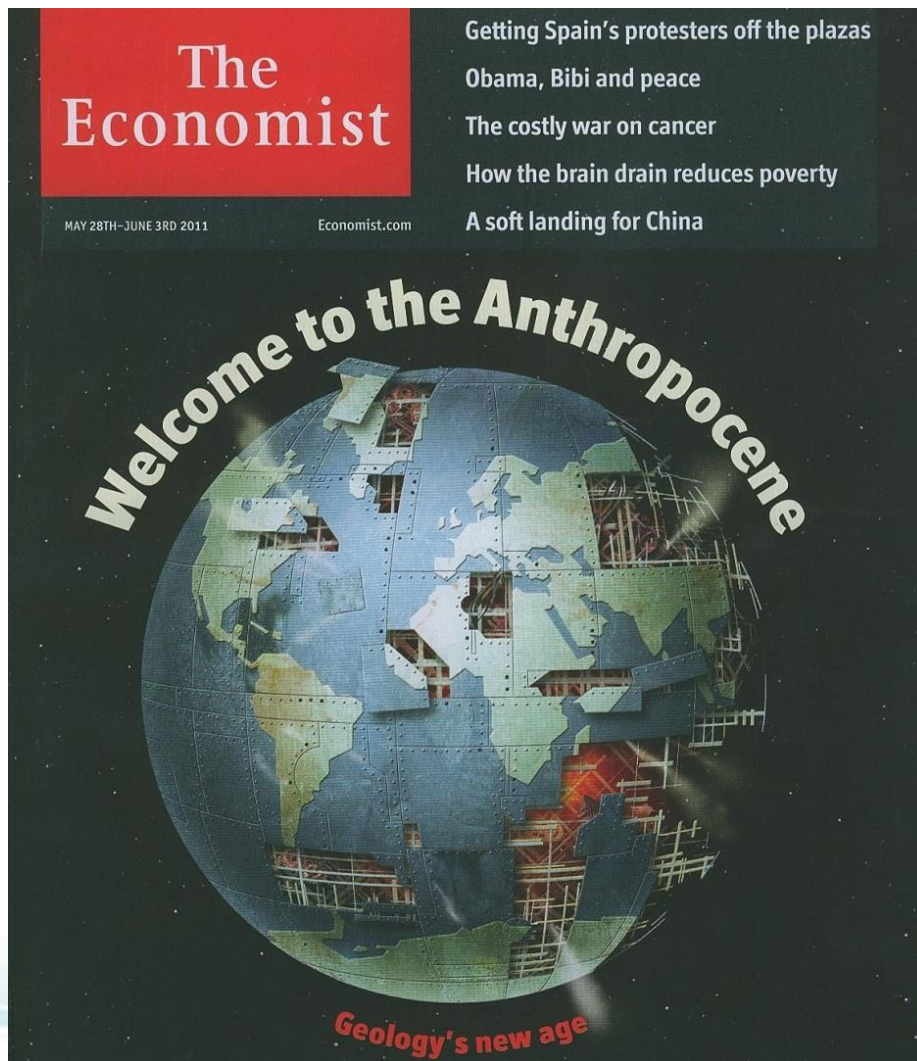
Welcome to the Anthropocene

Chairman's introduction

Nico van Belzen, PhD
Director General
International Dairy Federation

NutrEvent, Lille, 20 June 2013

THE IMPORTANCE OF SUSTAINABILITY



**“Anthropocene”
coined by Eugene
Stoermer, Paul Crutzen**

**“Human development has
reached a scale where it
affects vital planetary
processes”
(Rockström and Karlberg
2010)**

E.g. C, N, P, H₂O cycles

**Future fossil cities, fossil
tools**



data as of April 10, 2013 at 9:58:34 AM

World Population

7,109,434,783 Current World Population

36,047,141 Births this year

150,821 Births today

15,395,419 Deaths this year

64,414 Deaths today

20,651,722 Net population growth this year

<http://www.worldometers.info/>

Environment

1,415,819 Forest loss this year (hectares)

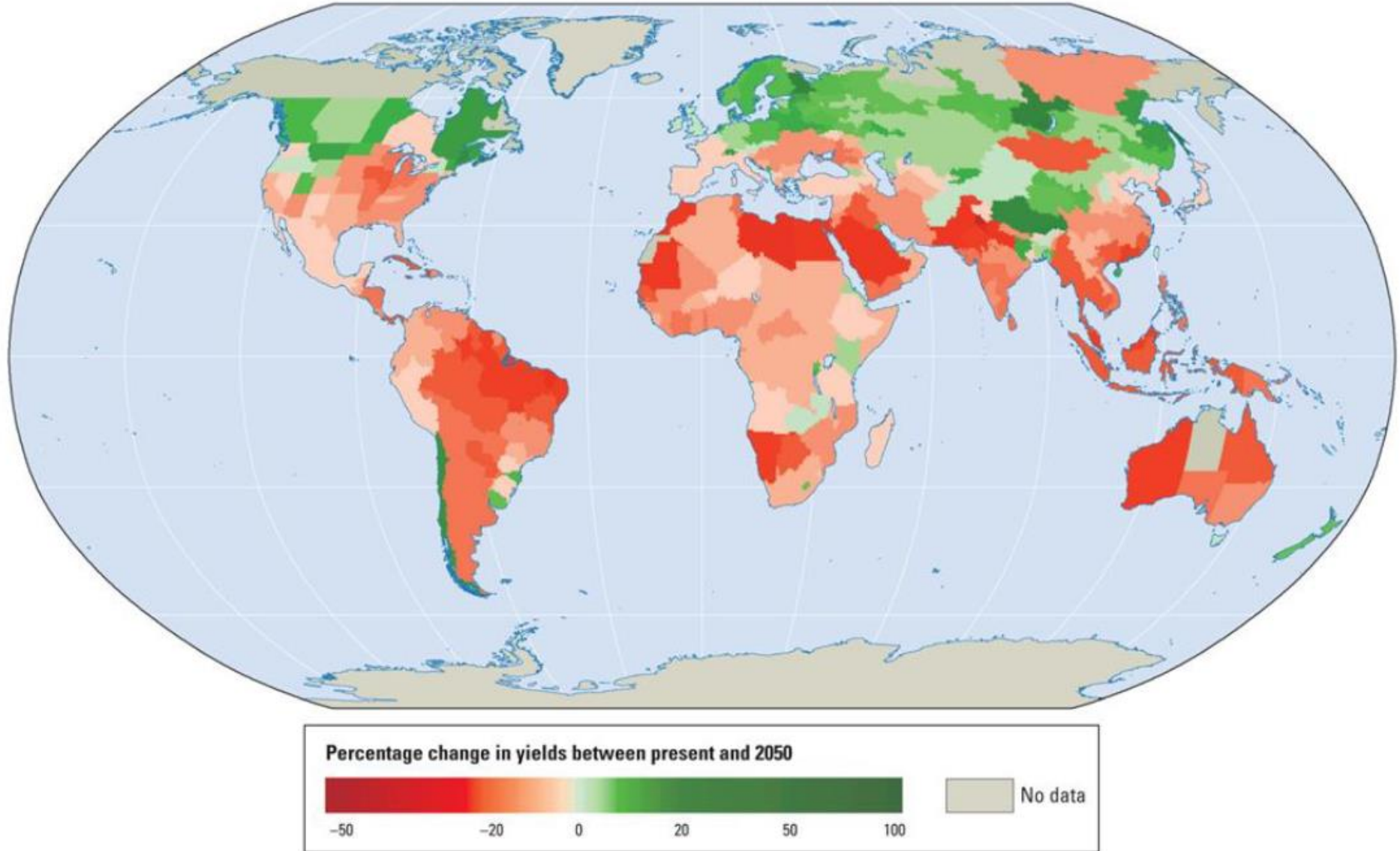
1,906,075 Land lost to soil erosion this year (ha)

9,135,422,578 CO₂ emissions this year (tons)

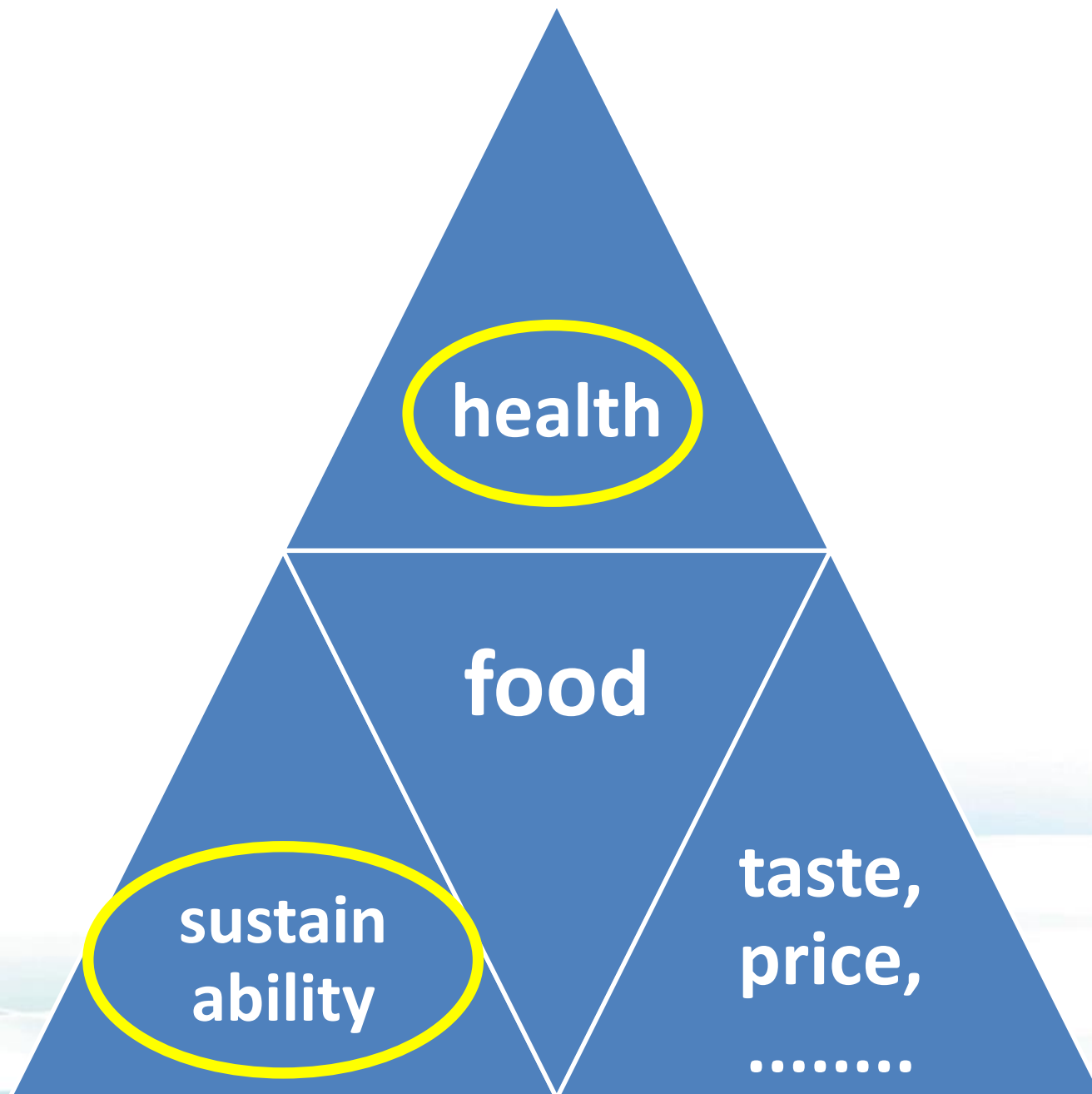
3,266,944 Desertification this year (hectares)

2,665,929 Toxic chemicals released in the environment
this year (tons)

Projected percentage in agricultural yields by 2050 given current agricultural practices and crop varieties



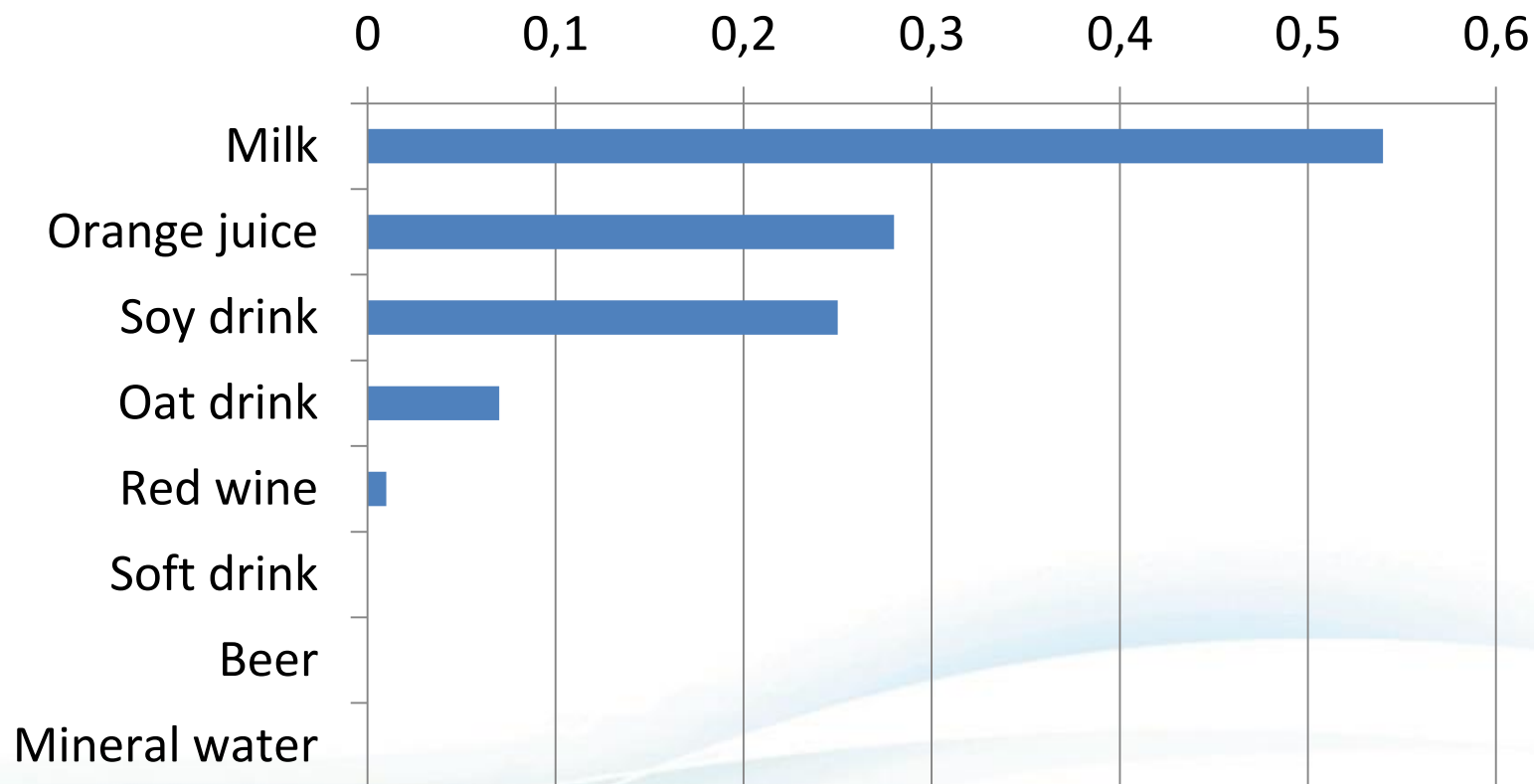
Source: World Bank (World Development Report 2010).





NUTRIENT DENSITY TO CLIMATE IMPACT INDEX OF BEVERAGES

NDCI (Nutrient density / GHG emissions)





NUTRITIONAL-ENVIRONMENTAL CONSIDERATIONS

- From an physiological perspective, humans are omnivores
- Macronutrient quality is important
 - Protein DIAAS, FAO report 92, 2013
 - Recent data suggest that particular saturated fats have different effects on e.g. CVD risk
- Micronutrient density is important
 - E.g. milk vs. soft drinks