

# Australia



Australian Export Grains Innovation Centre

## Food Water Energy Nexus

Australia a long term sustainable & reliable  
strategically aligned food security  
value chain partner

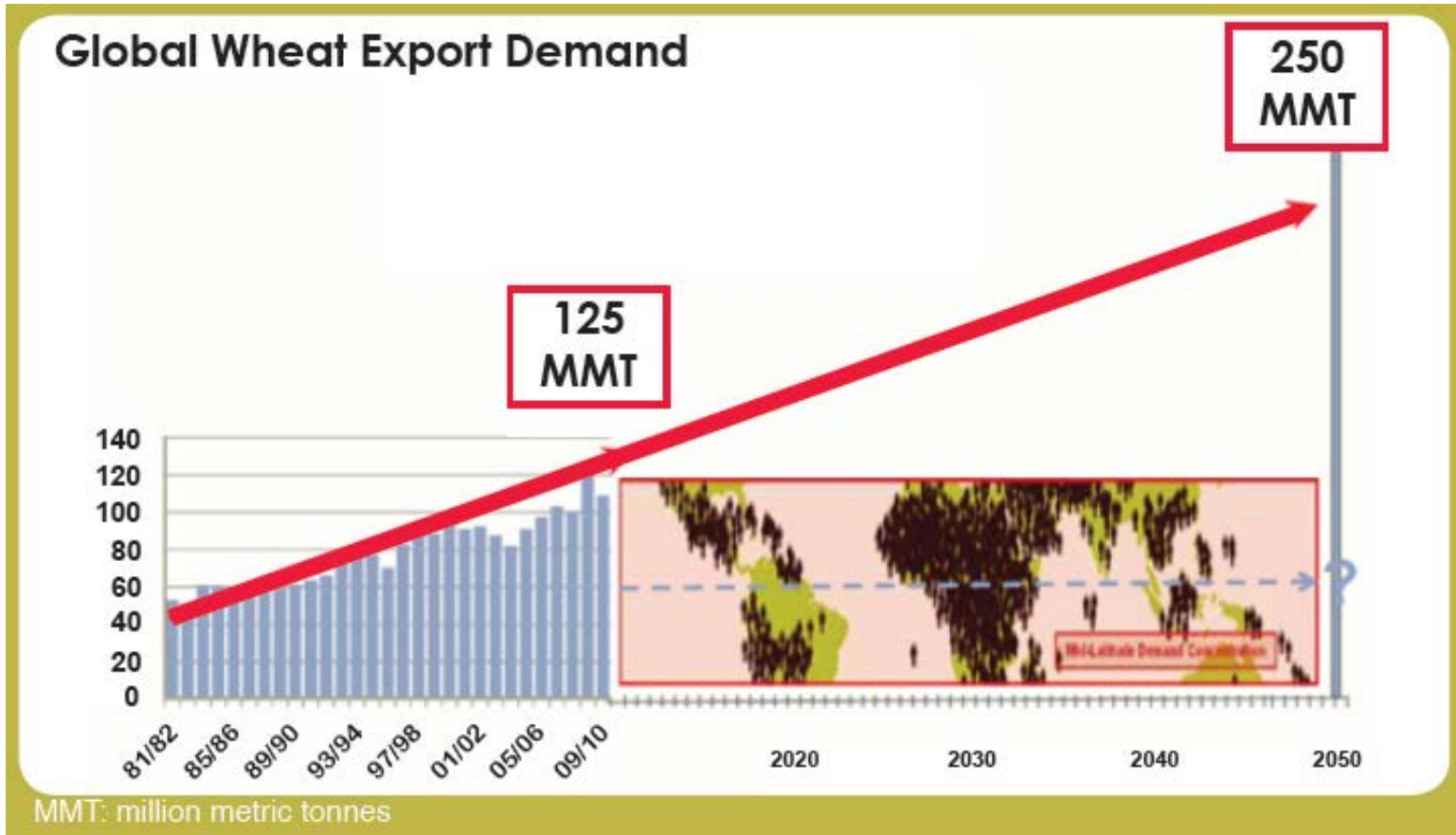


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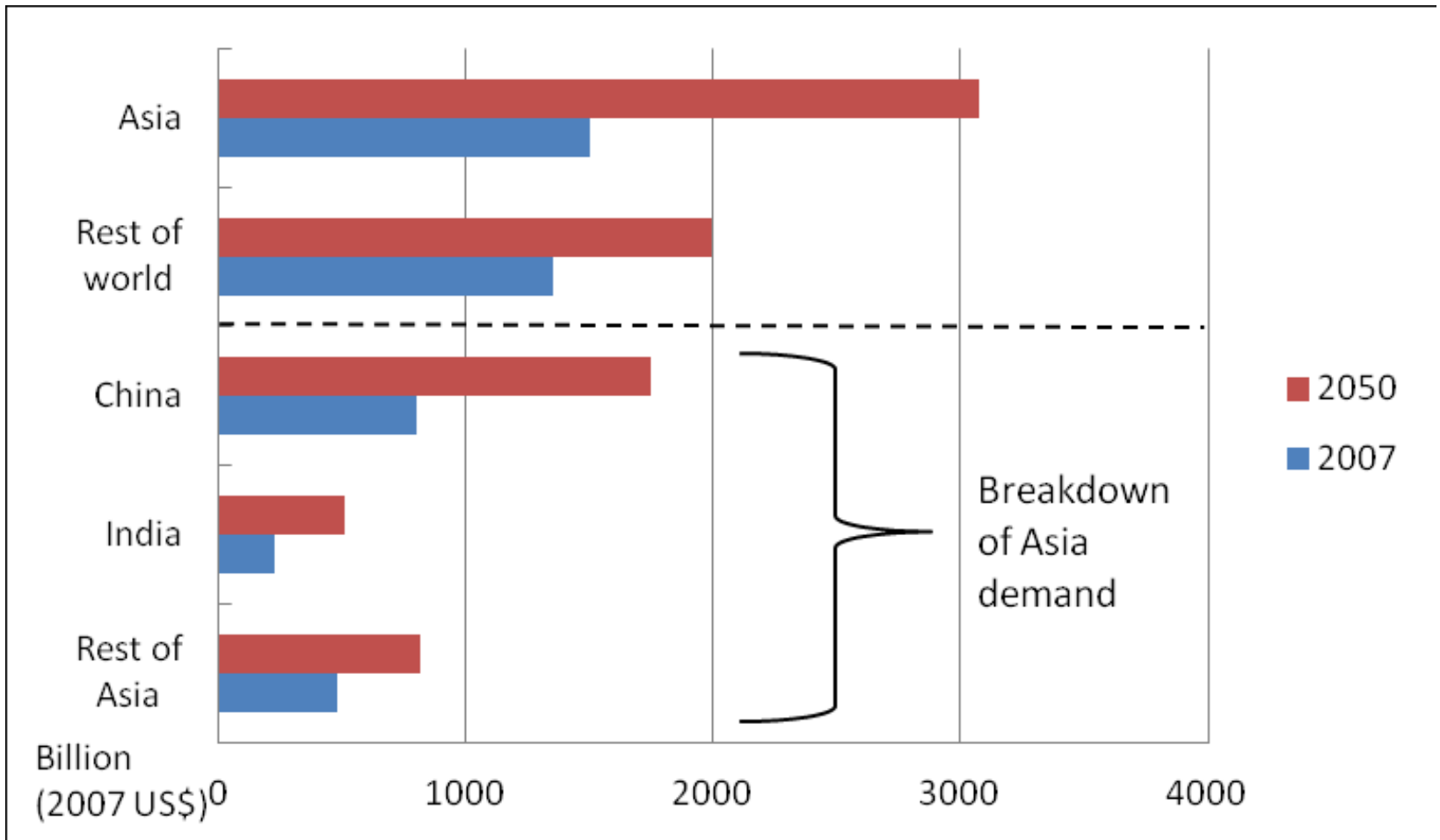
- **Global export food demand dynamics**
- **Sustainability of production resource (arable land & water utilisation)**
- **Food security - future supply demand and affordability pressures**
- **Australia a long term & reliable strategically aligned food security value chain partner**

# Global export food demand dynamics

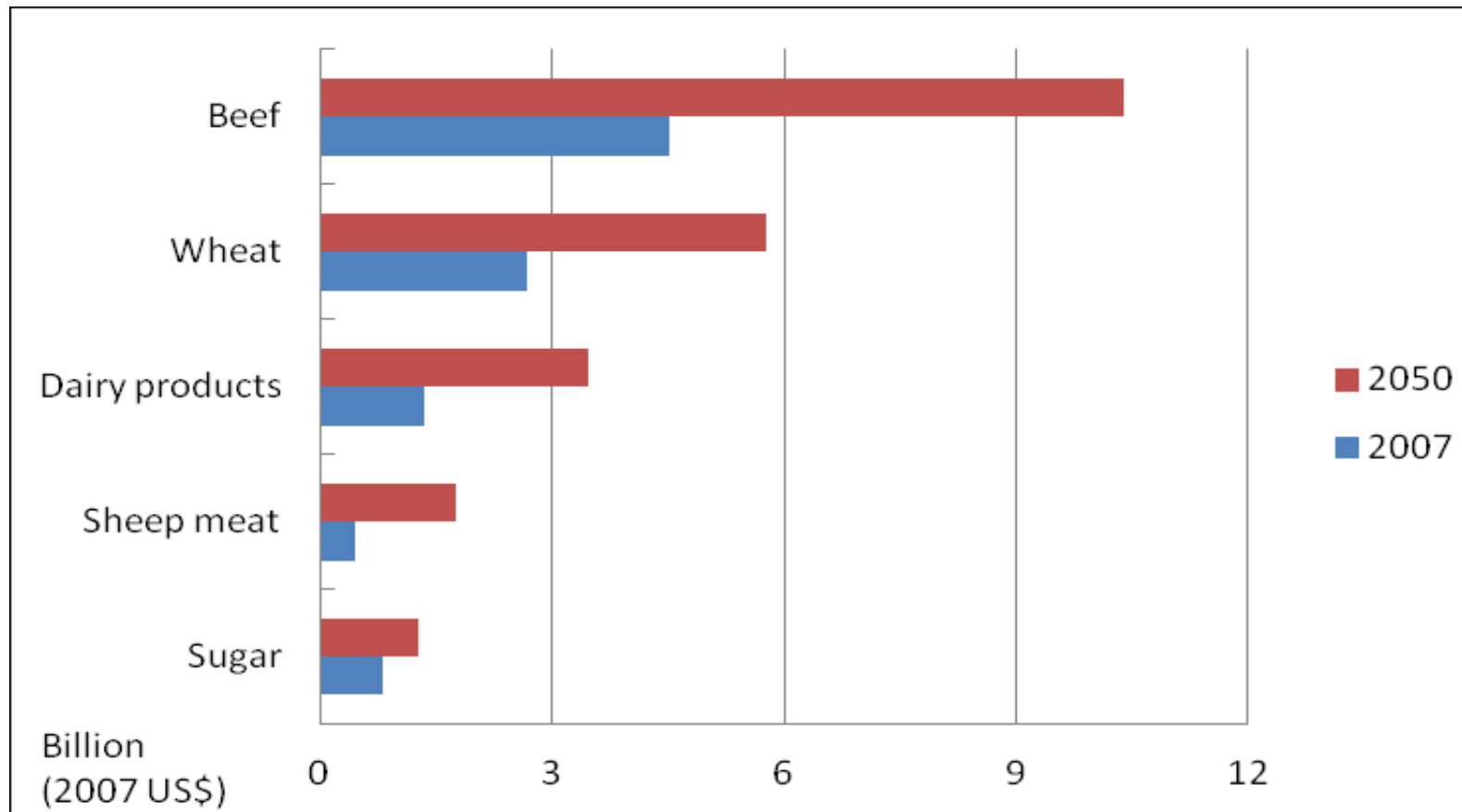
- Population increasing 30% by 2050 world will need to produce 70% more food
- Increasing numbers of affluent consumers – 30% increase in average daily calorie intake



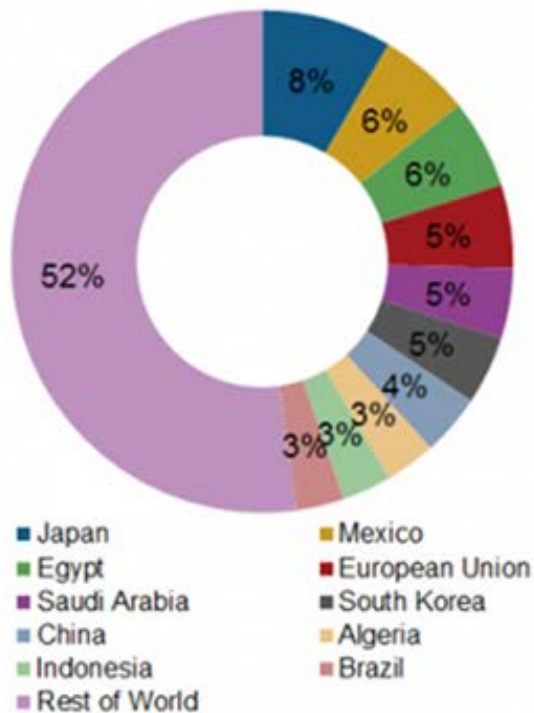
- Major population increases coming from regions where cereals are not readily produced impacting basic food product sustainability and price security, driving substantial increase in global cereal export demand



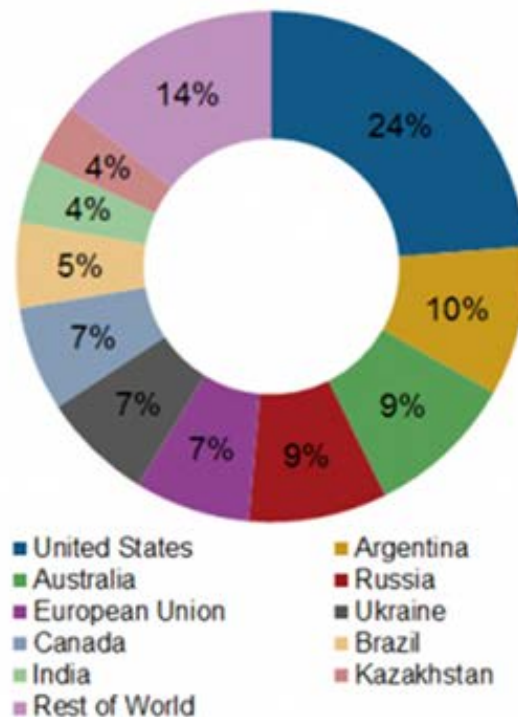
# Australia's food export projections



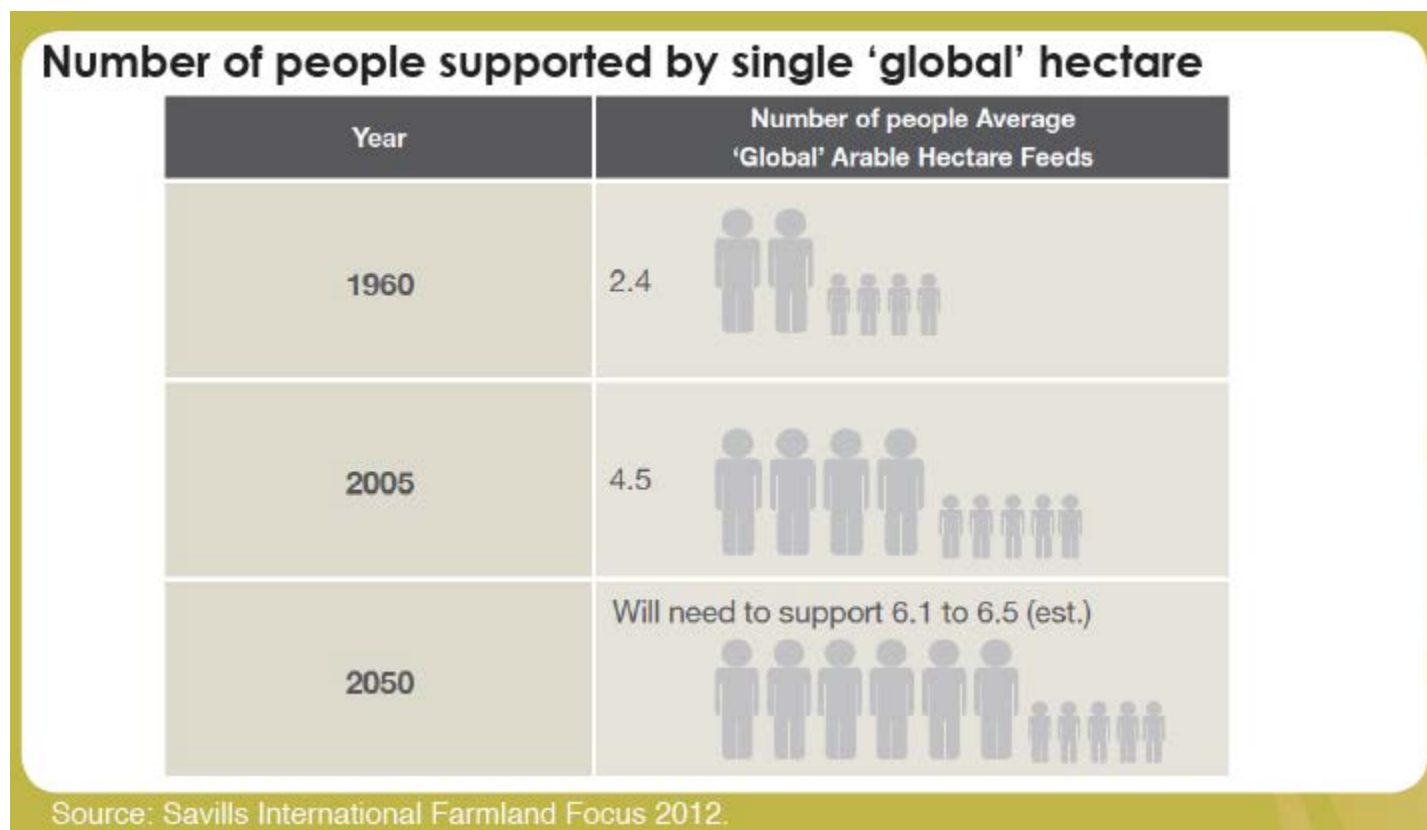
**Grain Importers 2011**



**Grain Exporters 2011**

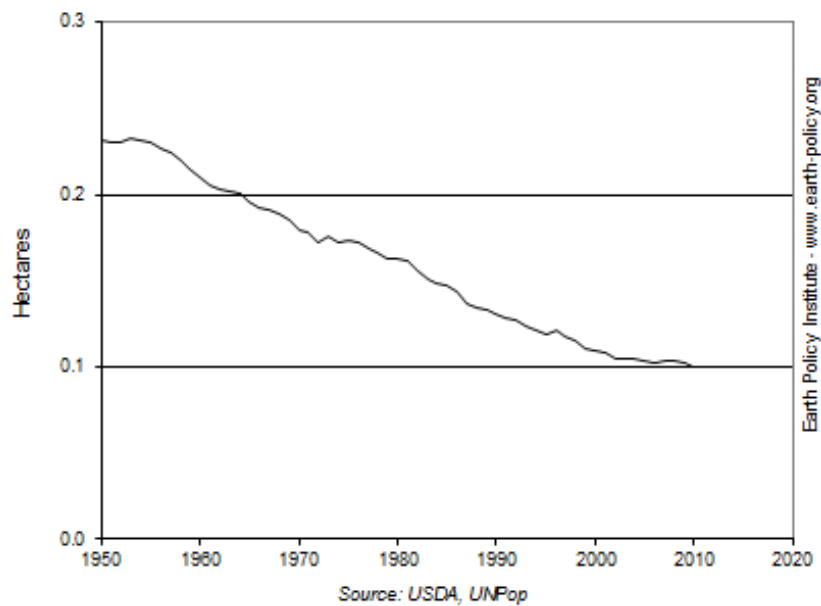


# Sustainability of production resource (arable land & water utilisation)

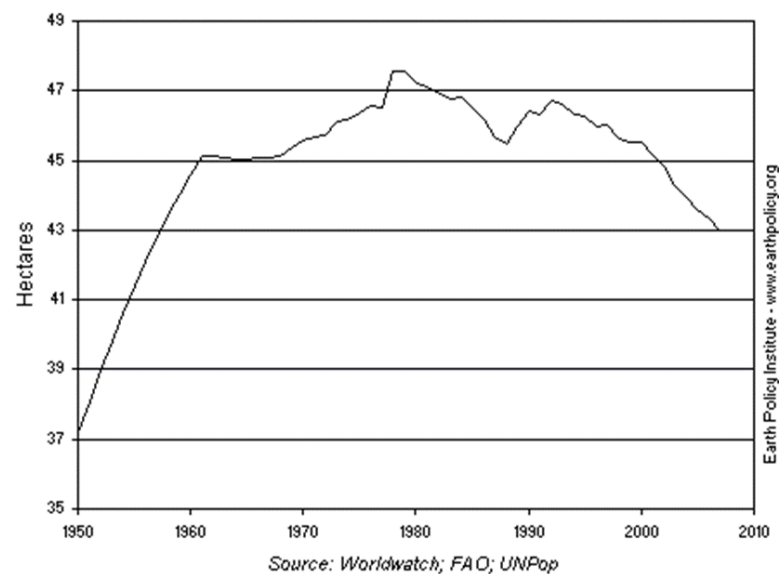


- One arable Hectare will need to feed 30% more people by 2050

World Grain Area Harvested Per Person, 1950-2011



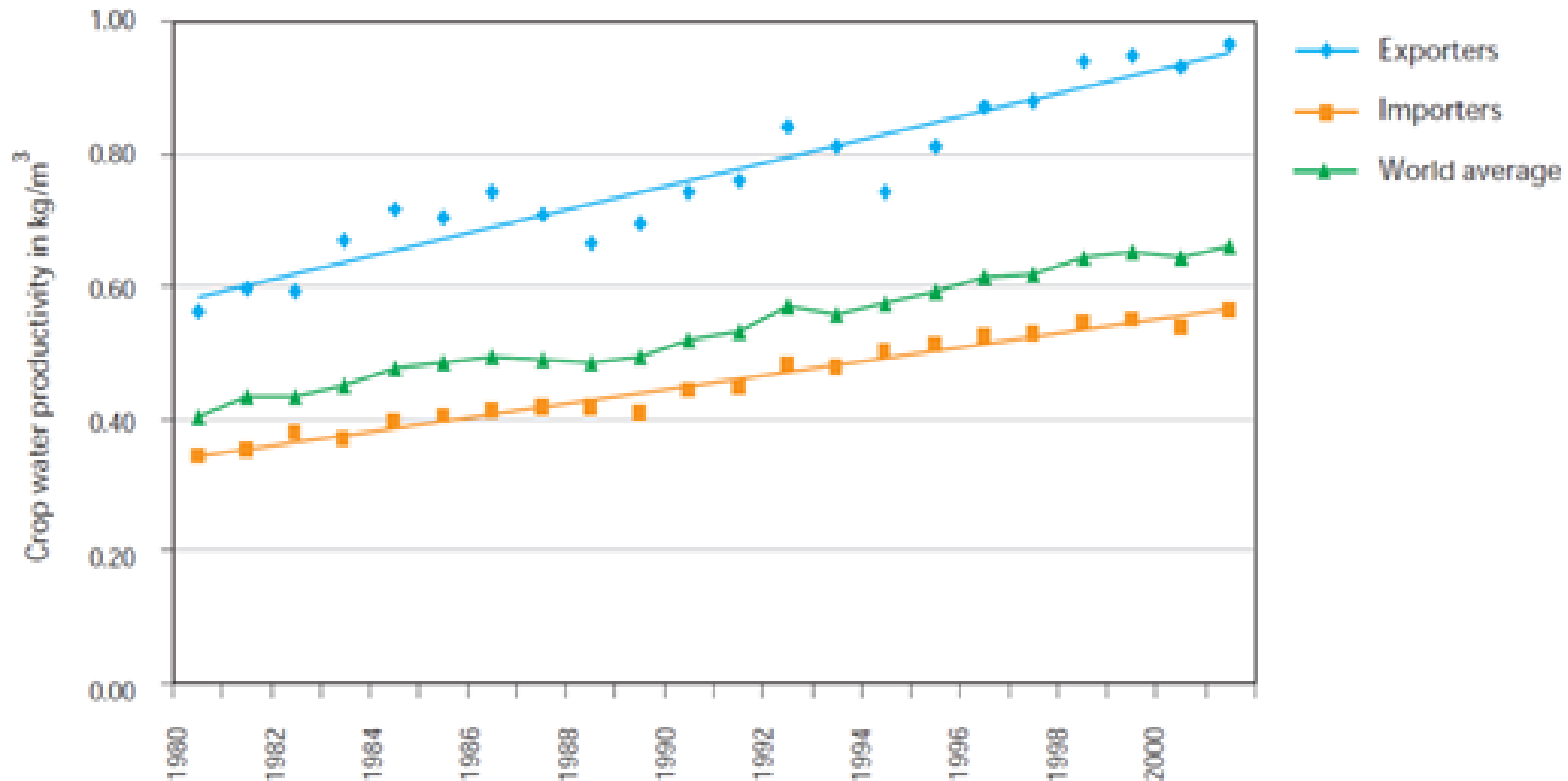
World Irrigated Area Per Thousand People, 1950-2007





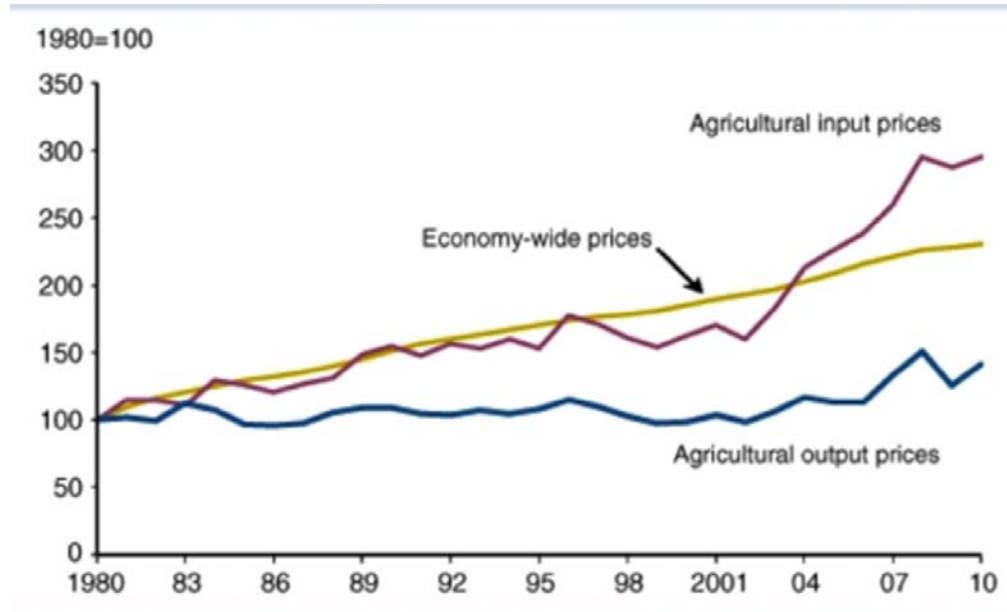
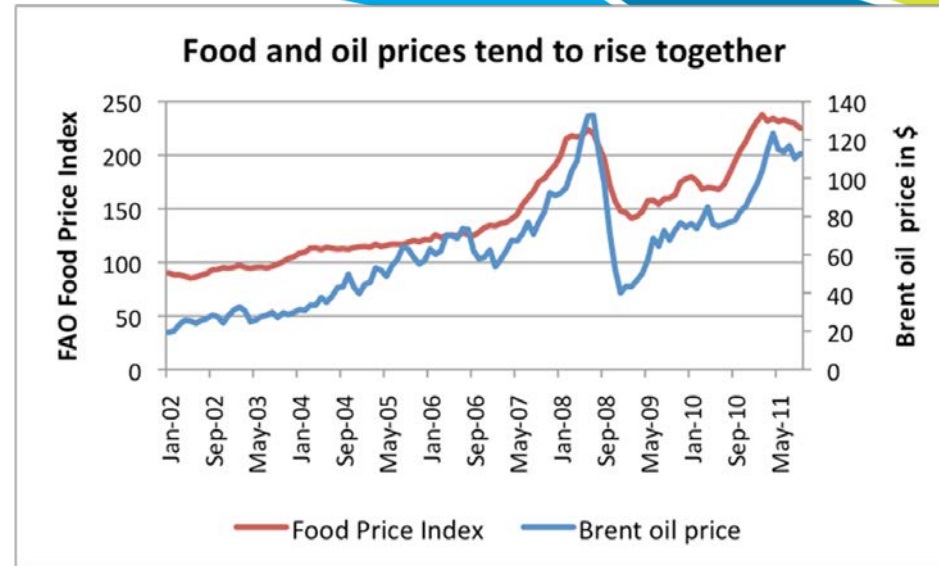
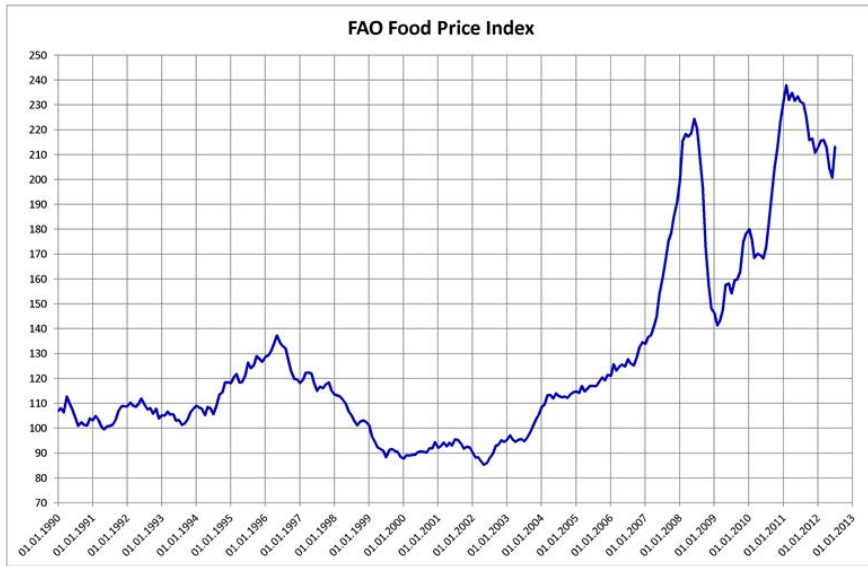
- Cereal exporting nations are improving their water use efficiency / capacity to convert water into grain at a faster rate than is occurring in cereal grain importing countries.

Water productivities of exporters and importers, 1980-2000.

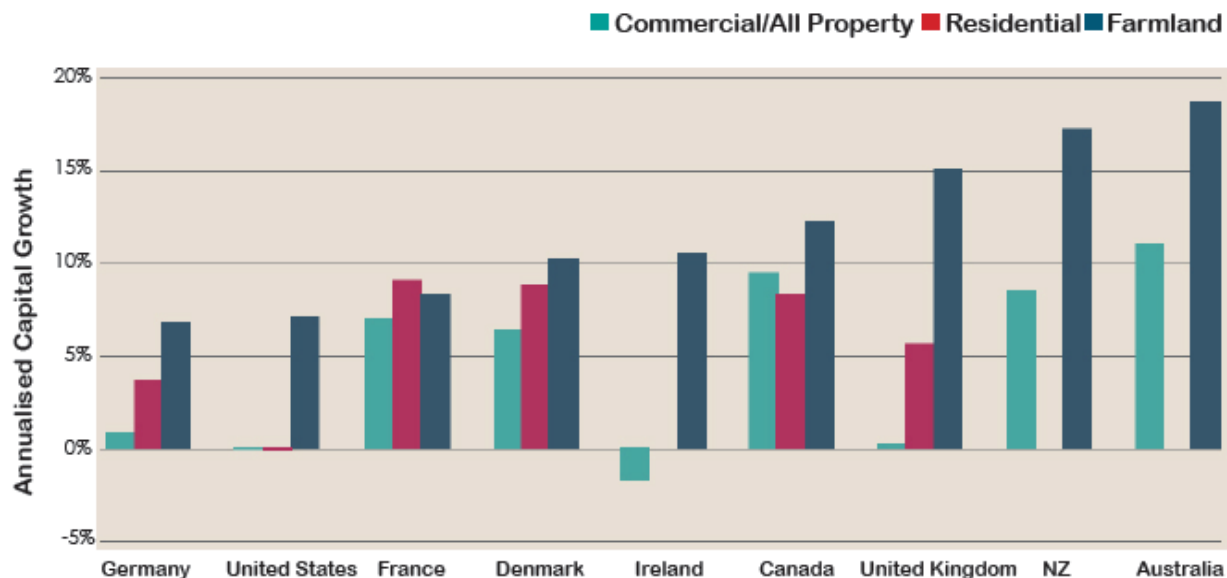


# Food security - future supply demand and affordability dynamics

- **Increasing demand, (global cereal stocks-to-use ratio = 24% where to?)**
- **Reduced rate of productivity gains**
- **Declining yields, (climate, conflict, non food use)**
- **Rising costs of production**
- **Government policies, (food security policies i.e. export embargos)**
- **Global supply / value chain dynamics adjusting rapidly i.e. vertical integration models emerging – will export grain be traded in 2050?**
- **Arable land values rising globally**
- **Trend towards increasing density of population urbanisation**

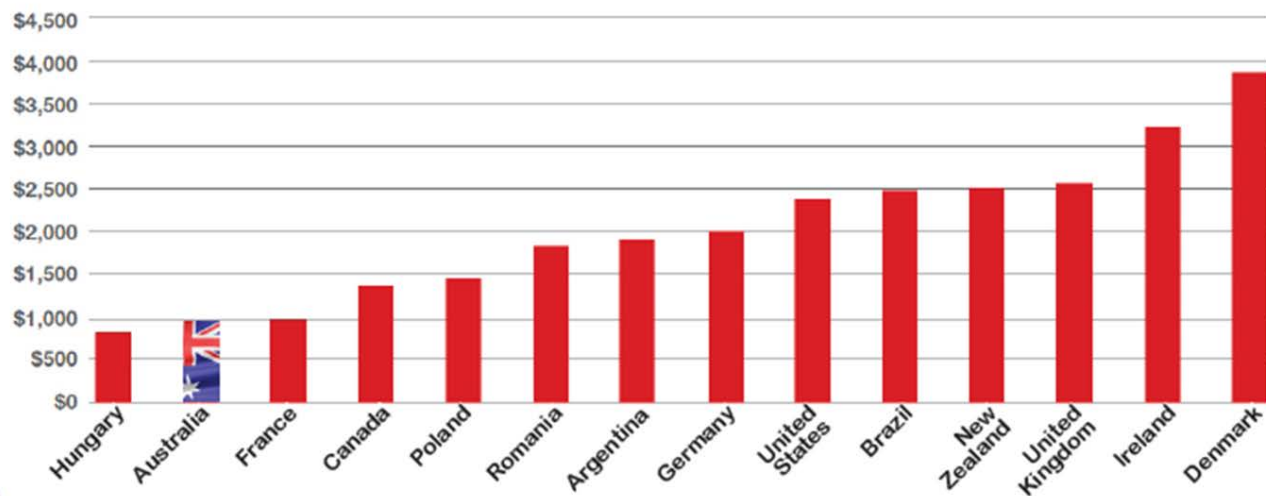


## Global Capital Growth (Annualised 2002-10)



Source: USDA, Eurostat, various data estimates in Savills Plc International Farmland Focus 2012 and Australian Government.

## Global Cost of Land / MT of Wheat Production



Source: Savills International Farmland Focus 2012 (from IPA, USDA and Eurostat and various data estimates).

# Australia a long term sustainable & reliable strategically aligned food security value chain partner

- **Food exports – significant global food exporter in 2050**
- **Research - significant investor in primary production R&D, Au\$1.5 Billion annually**
- **Food safety / quality / biosecurity – commitment, standards and quality very high**
- **Sustainable production practices – high water use efficiency and min tillage technologies**
- **Foreign investment and strategic supply / value chain integration sort and welcomed**

# Thank you



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