



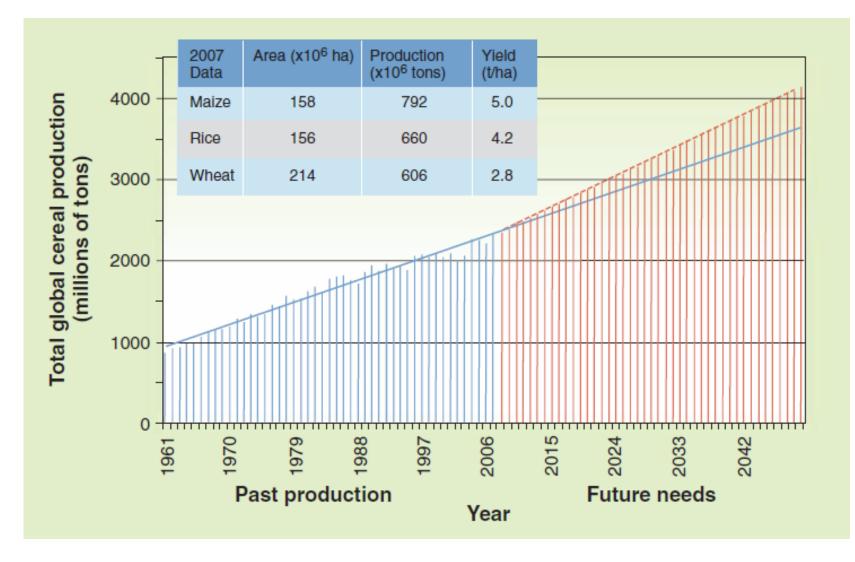
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# Points of Discussions

- How GEOSS can/should contribute to SDGs
- To consider what we can do particularly under WG5/Agriculture & Food Security
  - To understand current and future perspectives of food production and consumption
  - To map current activities onto action items for SDGs
  - To prioritize current activities for SDGs
  - To discuss how agriculture related observations and data are important for SDGs
  - o Etc.



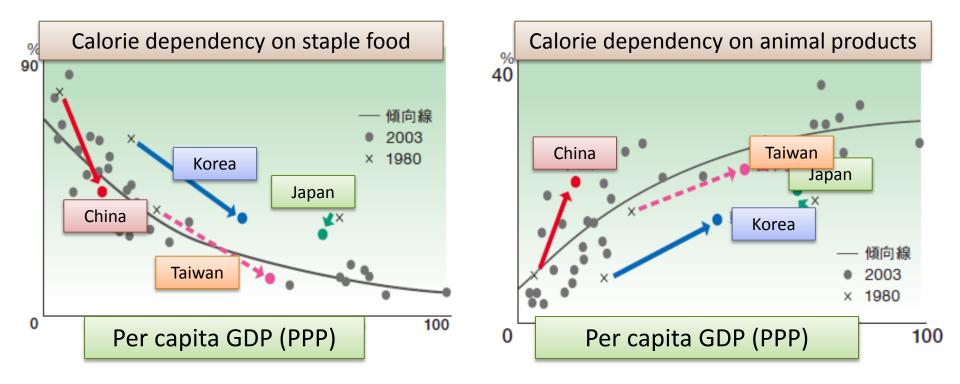
### Food demand increases



Science 327, 2010 •4

### Diet transition happens with economic growth

#### Production efficiency of animal product is much lower than staple food



## Very inefficient meet production

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	Milk	Egg	Chicken	Pork	Beef	Fish
Grain needed to produce 1kg of product (kg)	1.1	2.8	4.5	7.3	20.0	1.4
Nitrogen uptake (%)	30	30	20	10	5	40

Source: Smil (2001) Enriching the earth. The MIT Press.

# Water consumption for food production

• Water needed to produce 1 kg of agricultural product

Products	Water (t)	Products	Water (t)
Rice	3.6	Beef	20.6
Barley	2.6	Pork	5.9
Wheat	2.0	Chicken	4.5
Corn	1.9	Egg	3.2
Soybean	2.5		

### Toward sustainable and sufficient rich food production

