



# SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



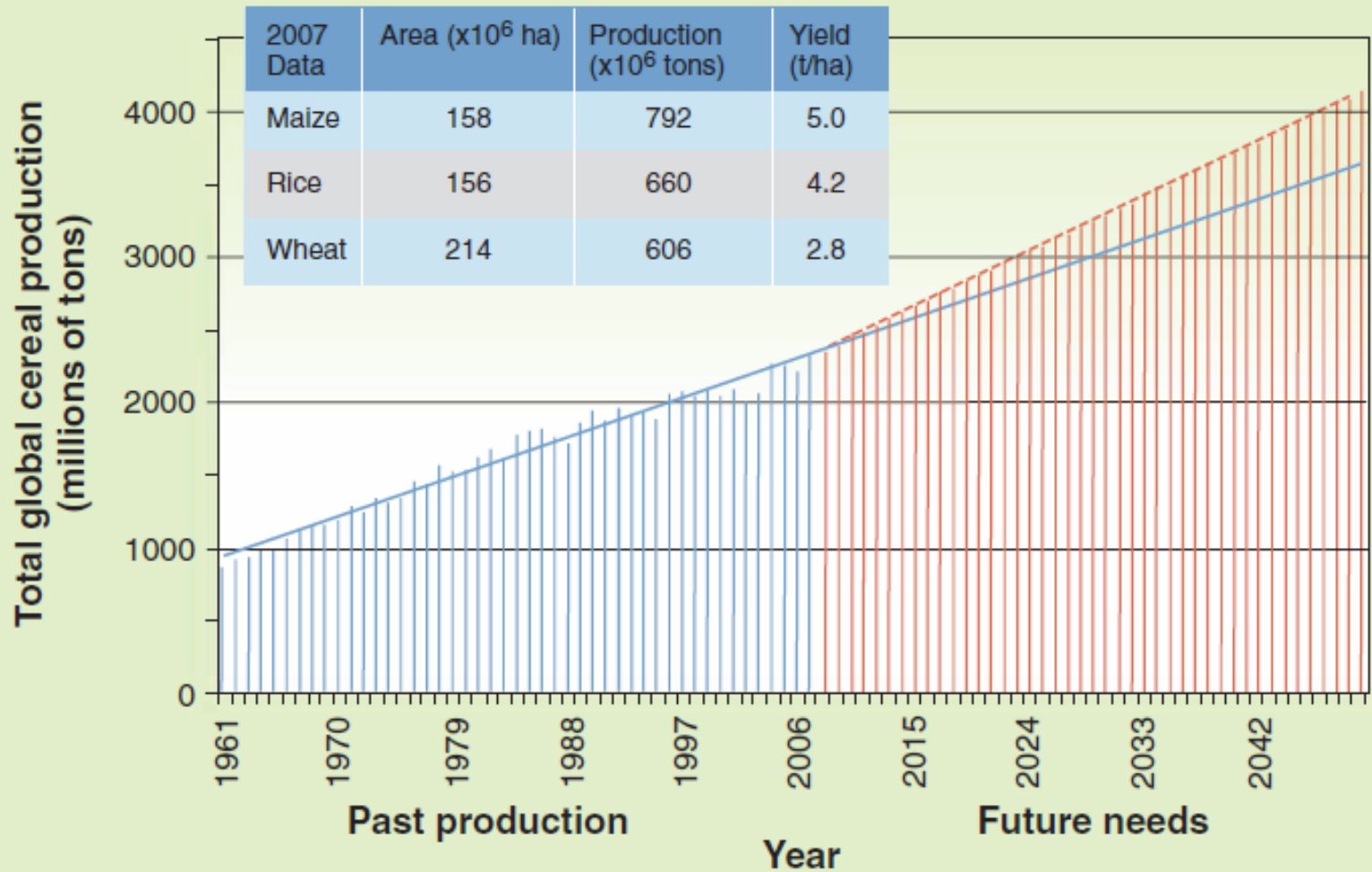
# Points of Discussions

- 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
  - Etc.



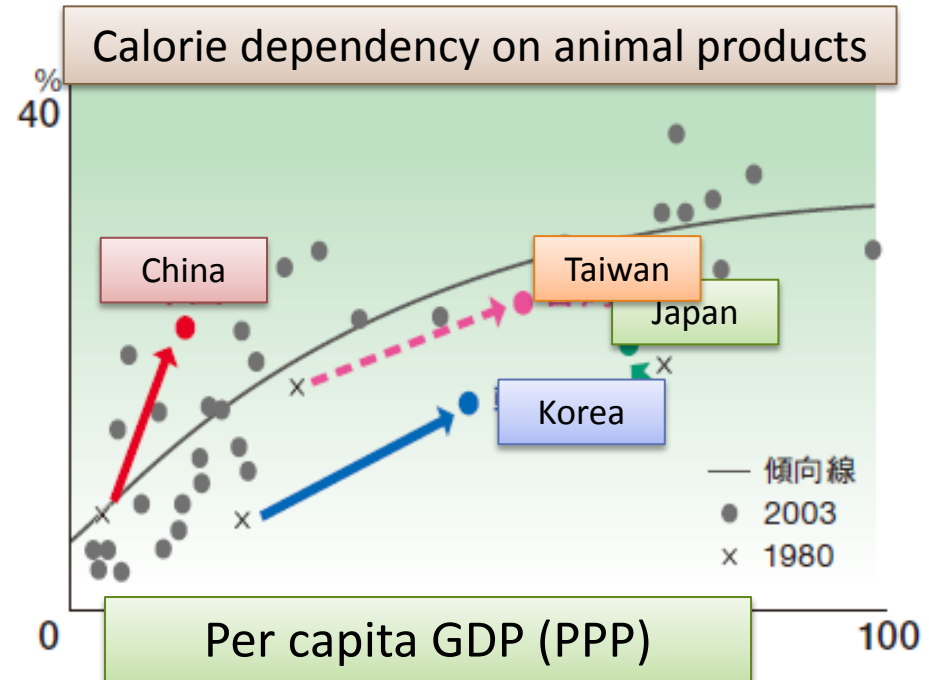
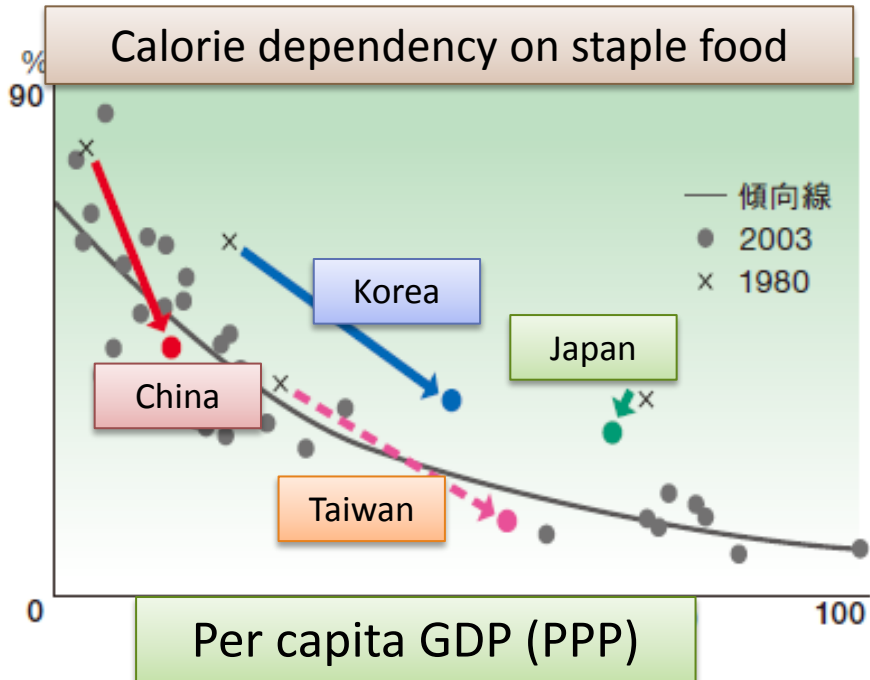
サーモンとほうれん草のキッシュ

# Food demand increases



# Diet transition happens with economic growth

Production efficiency of animal product is much lower than staple food



# Very inefficient meat production



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

# Water consumption for food production

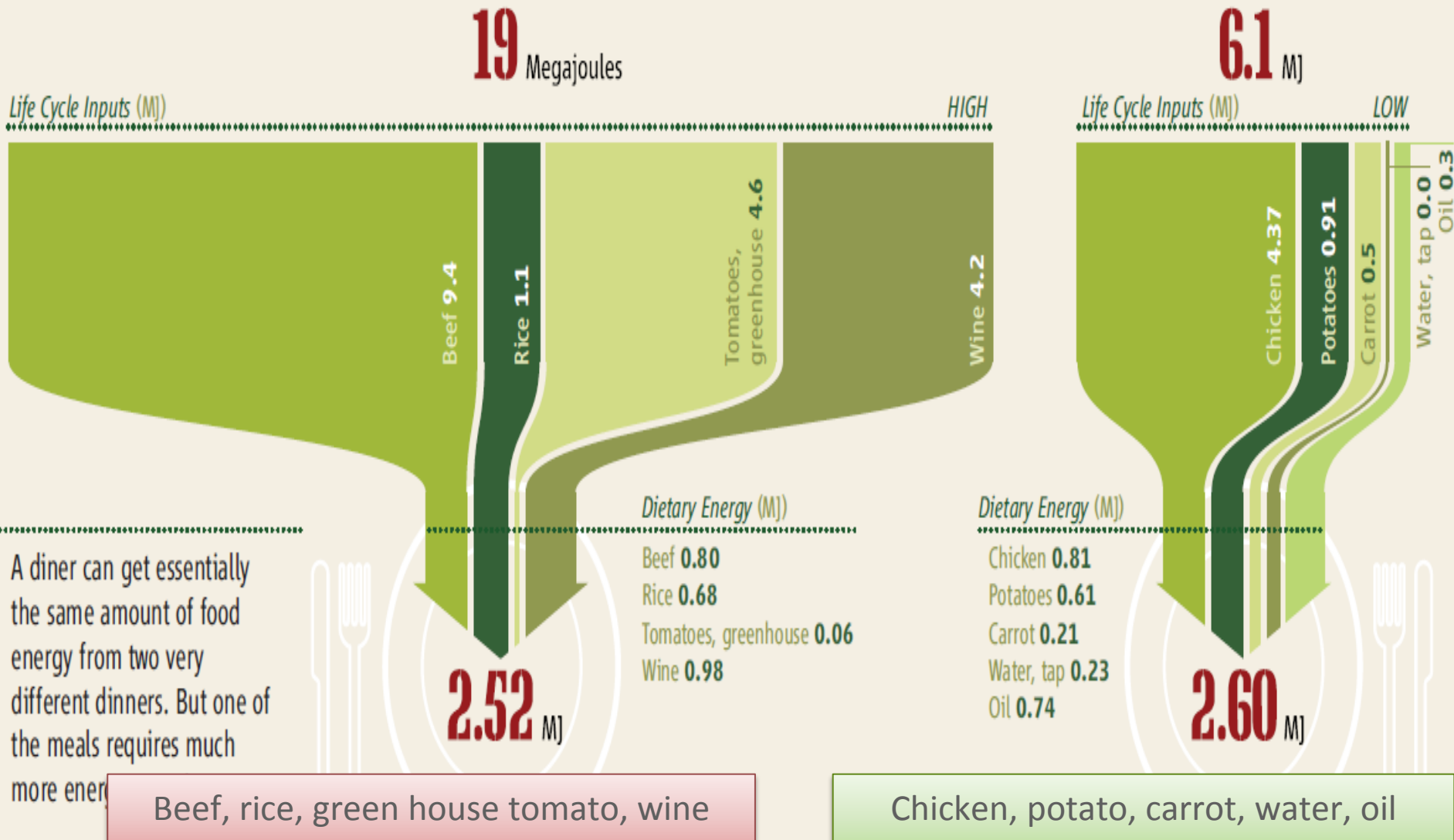
- Water needed to produce 1 kg of agricultural product

Products	Water (t)
Rice	3.6
Barley	2.6
Wheat	2.0
Corn	1.9
Soybean	2.5

Products	Water (t)
Beef	20.6
Pork	5.9
Chicken	4.5
Egg	3.2

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# TABLE FOR ONE: Which Is the Greener Plate?

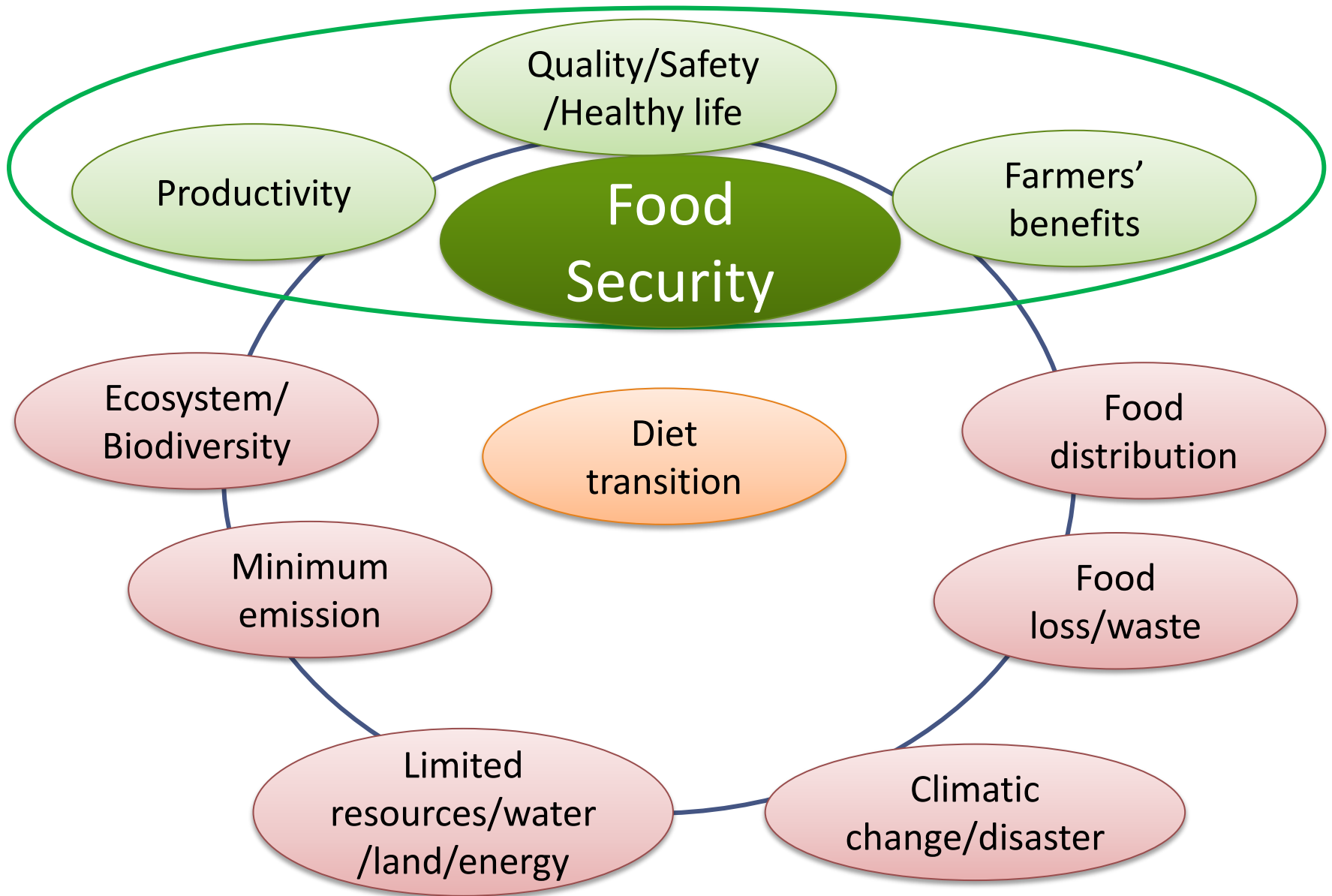


A diner can get essentially the same amount of food energy from two very different dinners. But one of the meals requires much more energy.

SOURCE: Carlsson-Kanyama, A. et al., *Ecological Economics* 44, Issues 2-3 (March 2003)



# Toward sustainable and sufficient rich food production



# Food nowadays

- Food is not just something to feed us anymore
- Food is a key factor to enjoy society development
- Food is a basis of healthy and quality life
- Food is a part of the back bone of culture