BI CENTER FOR CLIMATE STRATEGY

2052 - A Global Forecast for the Next Forty Years

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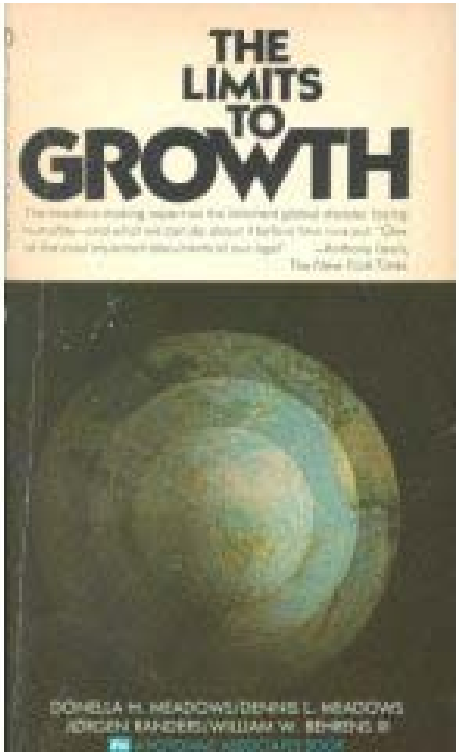
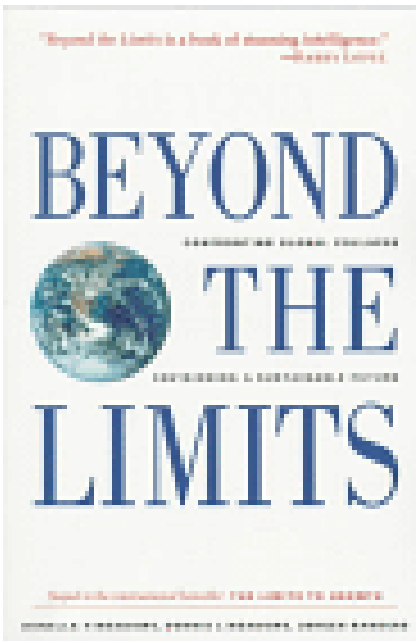
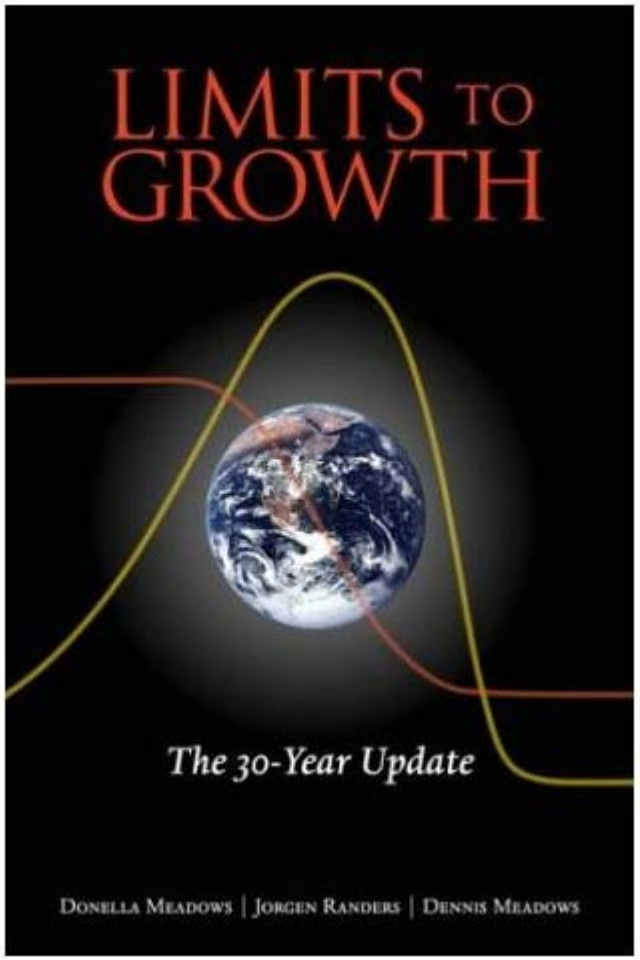
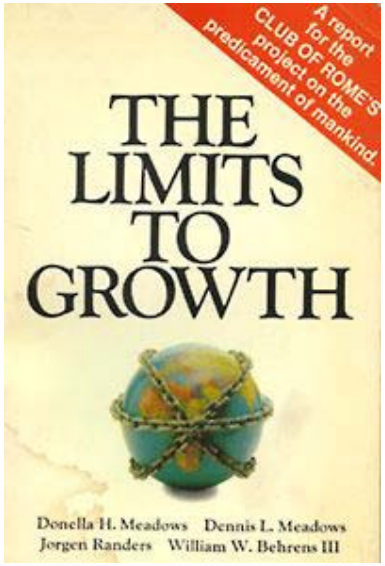


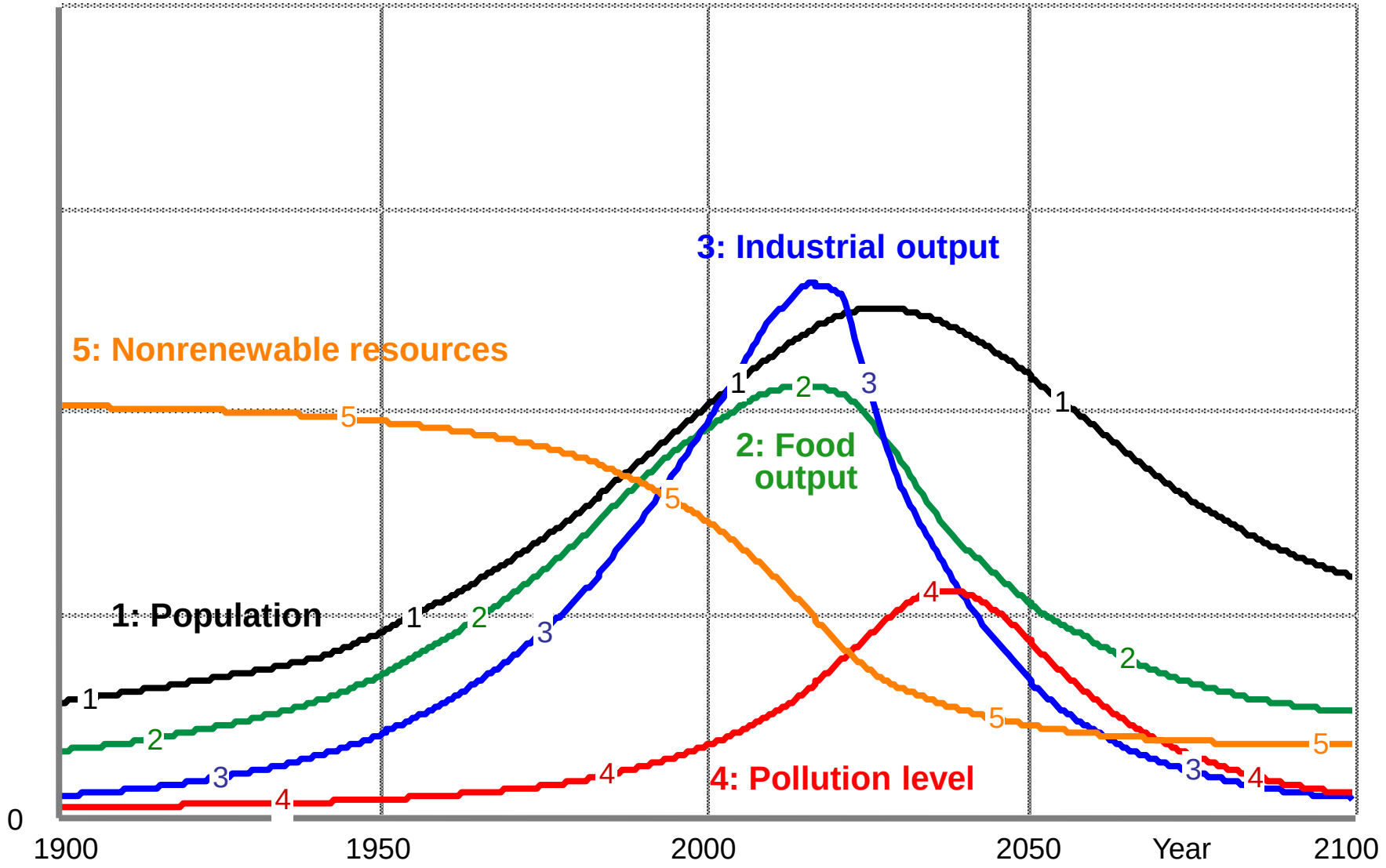


12 scenarios for the 21st century



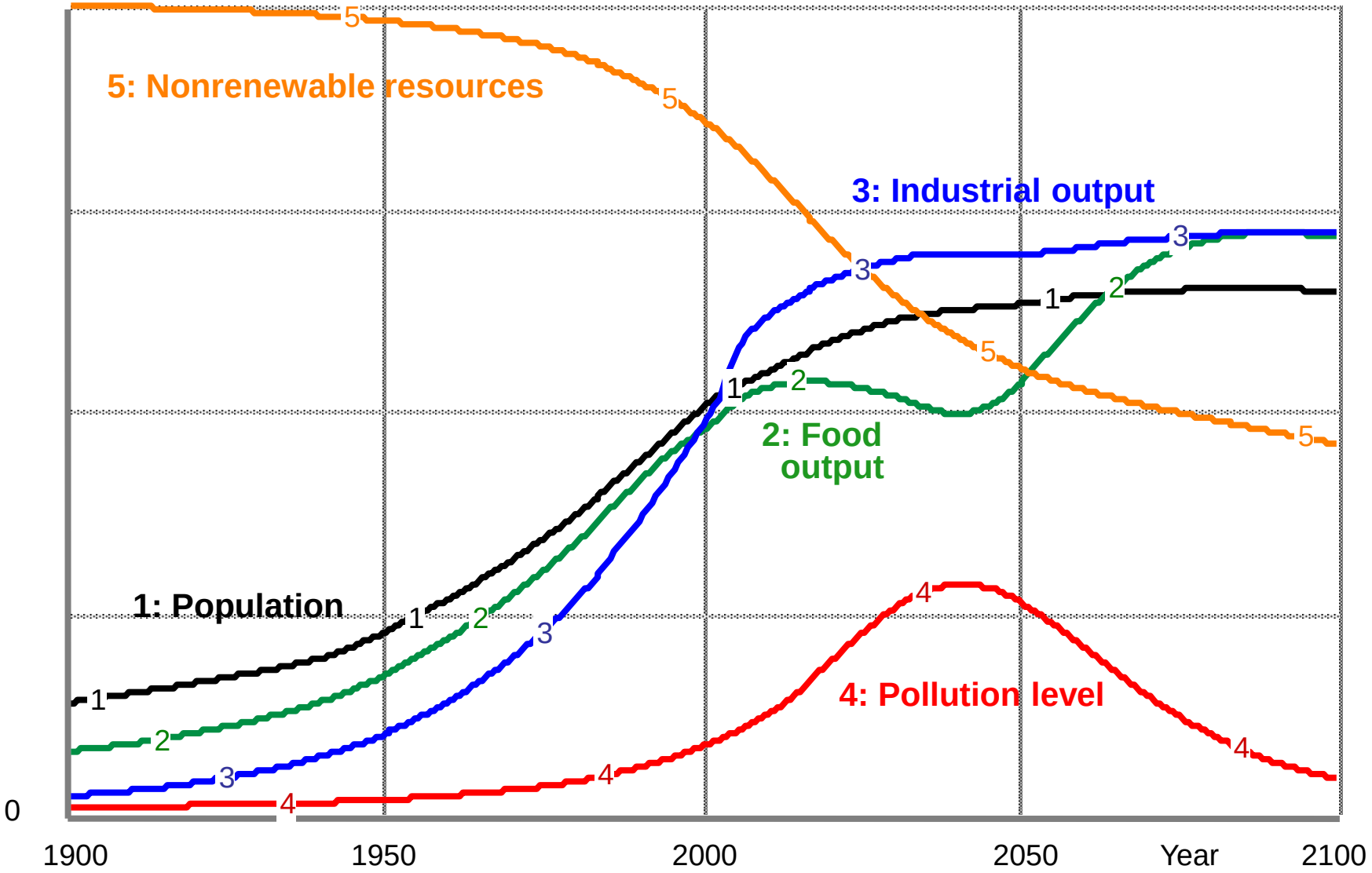


Limits Scenario 1: Resource crisis



Source: Meadows, Randers and Meadows, LTG 30 year update, 2004

Limits Scenario 9: Sustainability

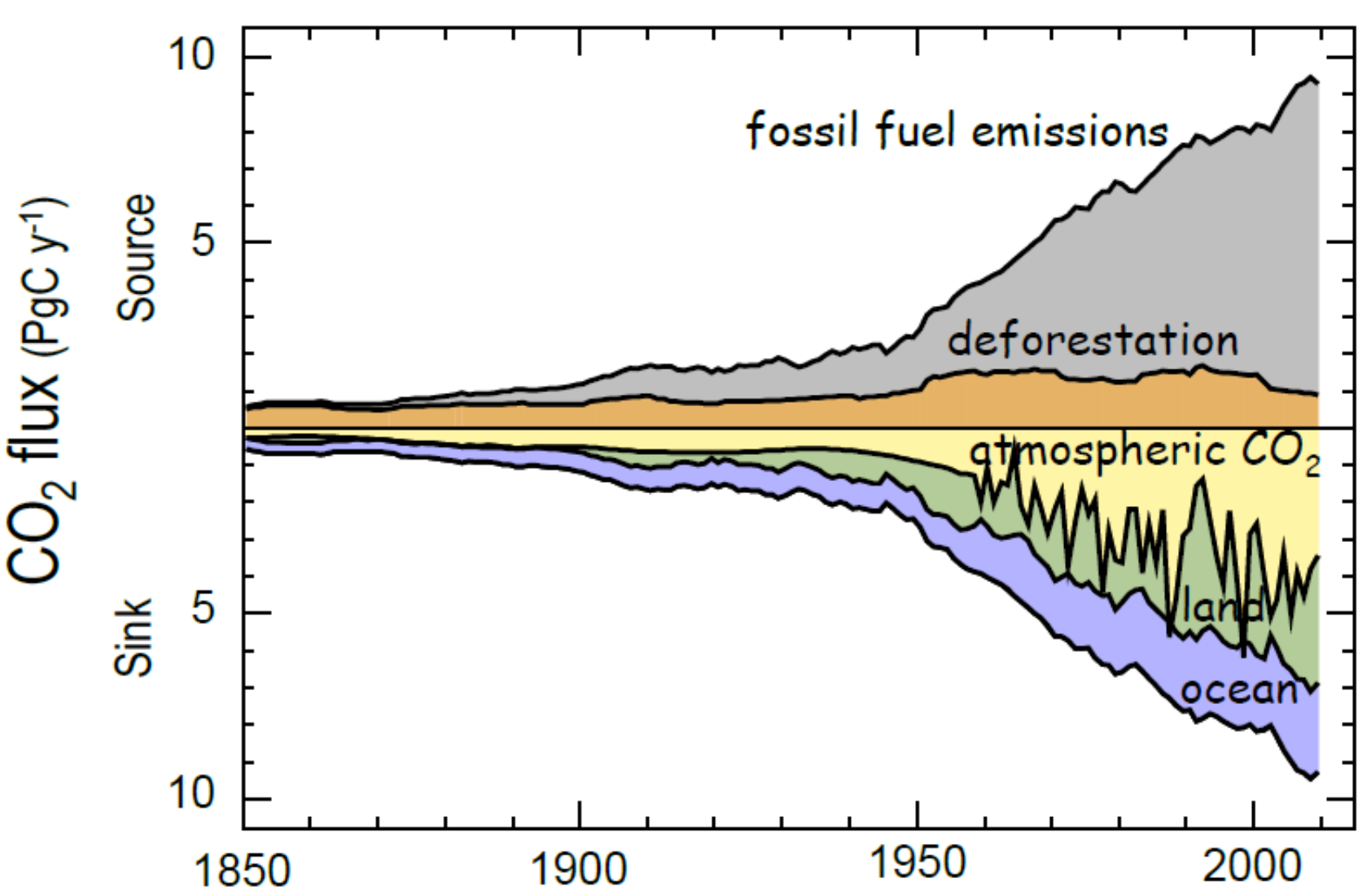


Source: Meadows, Randers and Meadows, LTG 30 year update, 2004

Limits to Growth: A small and fragile world

Source: KPMG, 2010

Overshoot: Emissions is twice absorption



Source: Global Carbon Project, Carbon Budget 2009

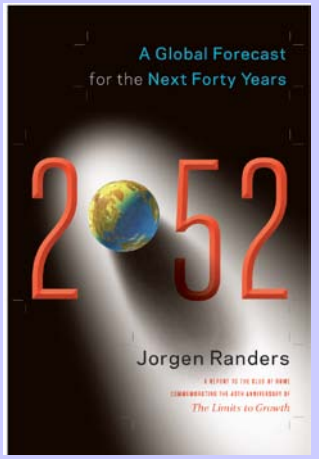
EINE GLOBALE PROGNOSE
FÜR DIE NÄCHSTEN 40 JAHRE

2052

JORGEN RANDERS

Der neue Bericht an den Club of Rome
40 Jahre nach »Die Grenzen des Wachstums«

oekom



For all numerical data
and the forecast model,
consult
the book website
www.2052.info

The five regions used in the 2052 forecast

Region	Population 2010 (billion people)	GDP 2010 (trillion $ pr year)	GDP per person 2010 (1000 $ pr person-year)
US	0,3	13	41
China	1,3	10	7
OECD-less-US (1)	0,7	22	30
BRISE (2)	2,4	14	6
ROW (3)	2,1	8	4
Sum world	***6,9***	***67***	***10***

(1) Old industrial world, including EU, Japan, Canada, Australia, New Zealand etc
(2) Brazil, Russia, India, South Africa and the ten biggest emerging economies
(3) The remaining ca 140 countries of the world

Source: Jorgen Randers, *2052*, Chelsea Green, Vermont, May 2012

World population will peak in 2040

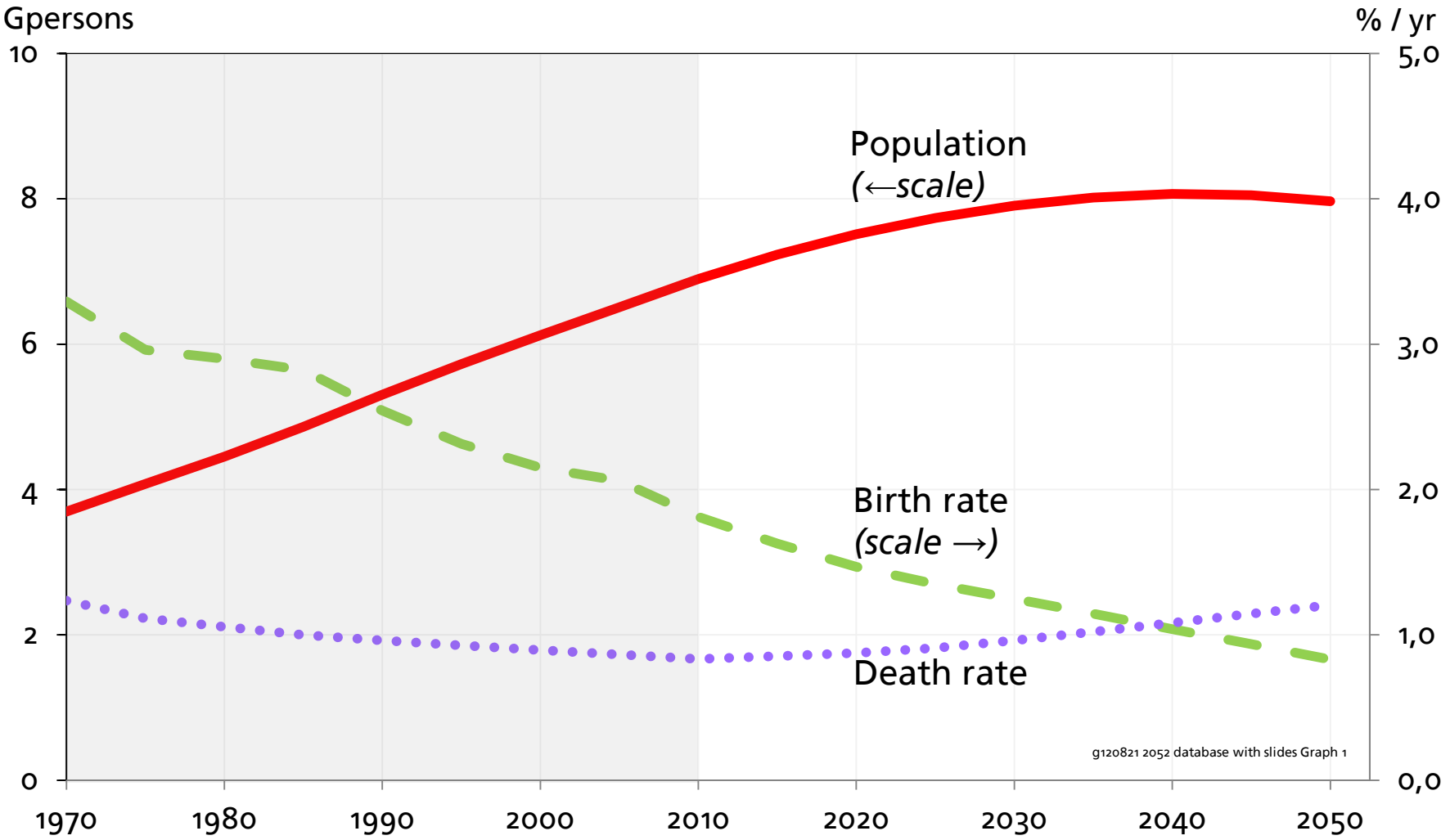


Figure 4-1 Population – World 1970 to 2050

World GDP growth will slow down

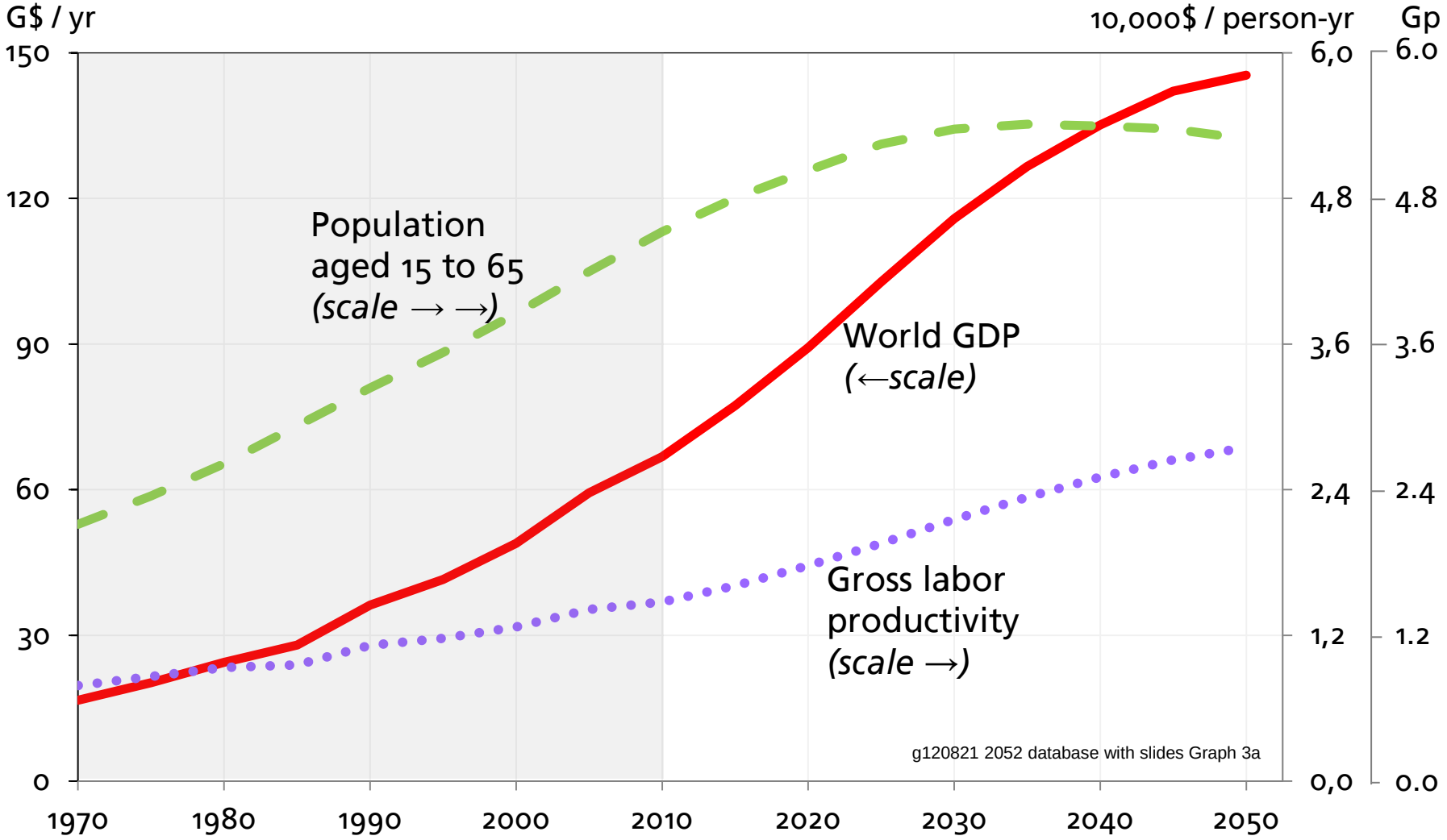


Figure 4-3b: Gross Domestic product – World 1970 to 2050
Definition: GDP = Population aged 15 to 65 years multiplied with Gross labour productivity

Share of GDP in investment will grow

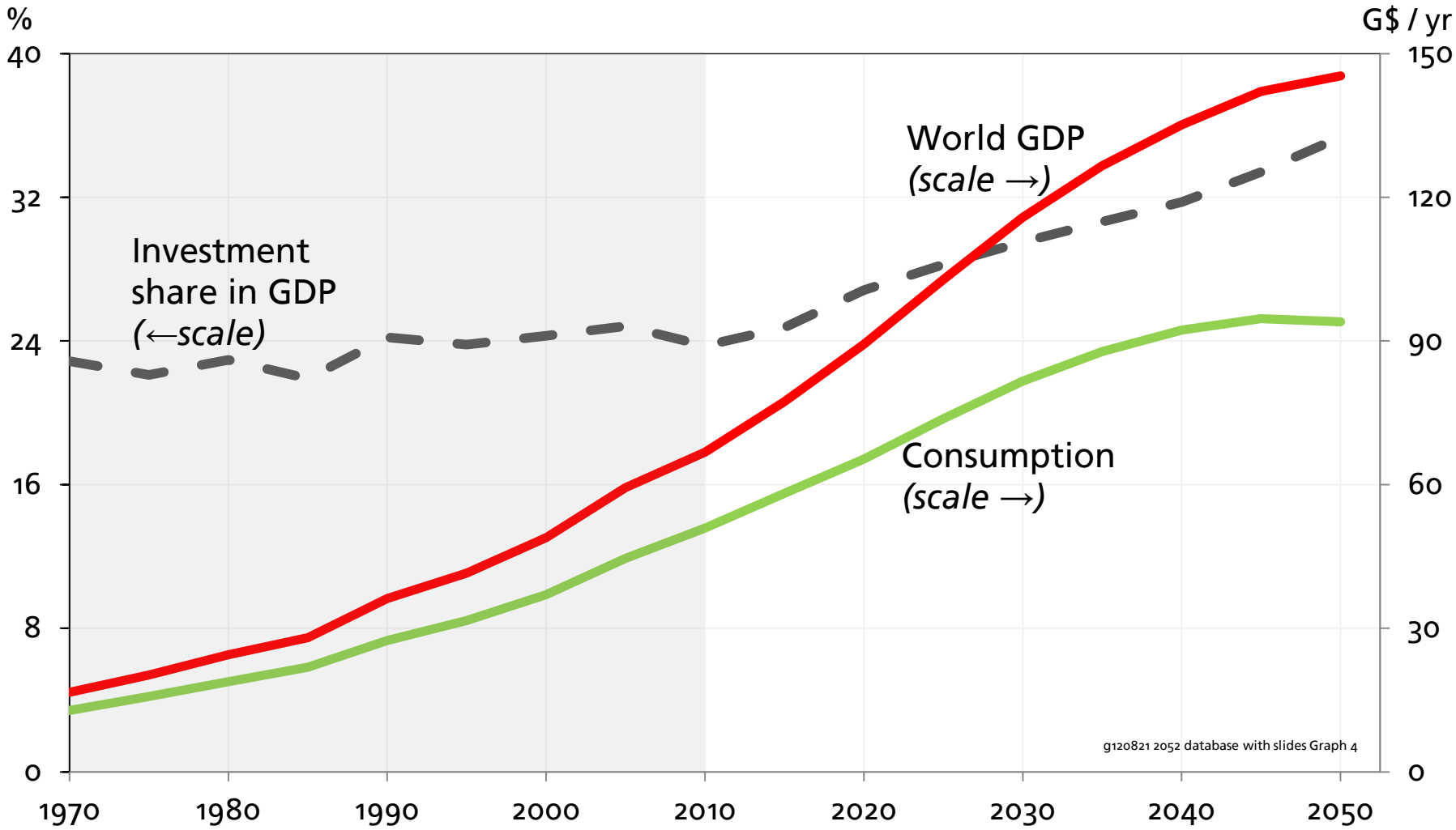


Figure 4-4: Production and Consumption – World 1970 to 2050

Energy use will peak in 2040

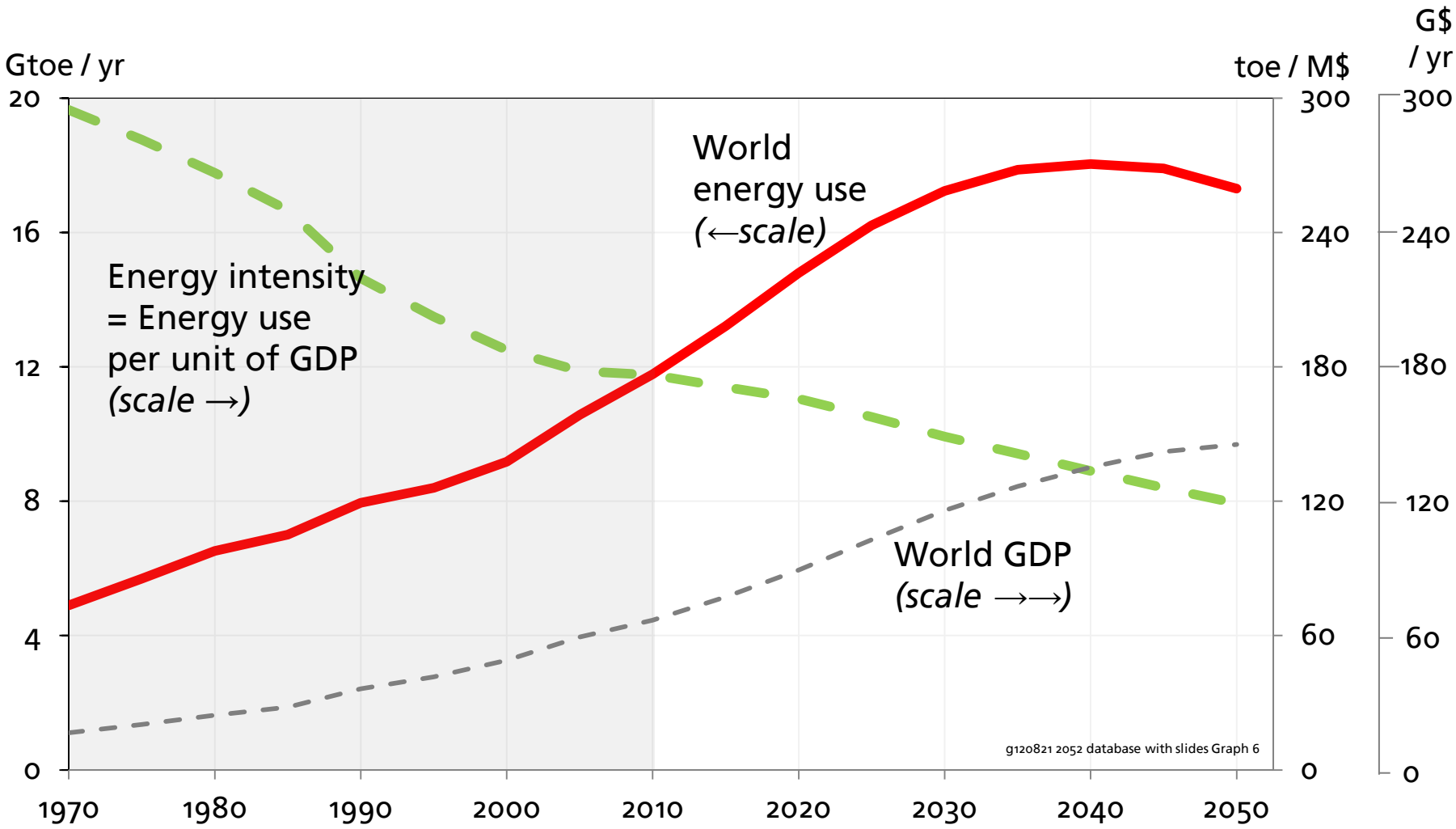


Figure 5-1: Energy Use – World 1970 to 2050

Fossil fuels will prevail

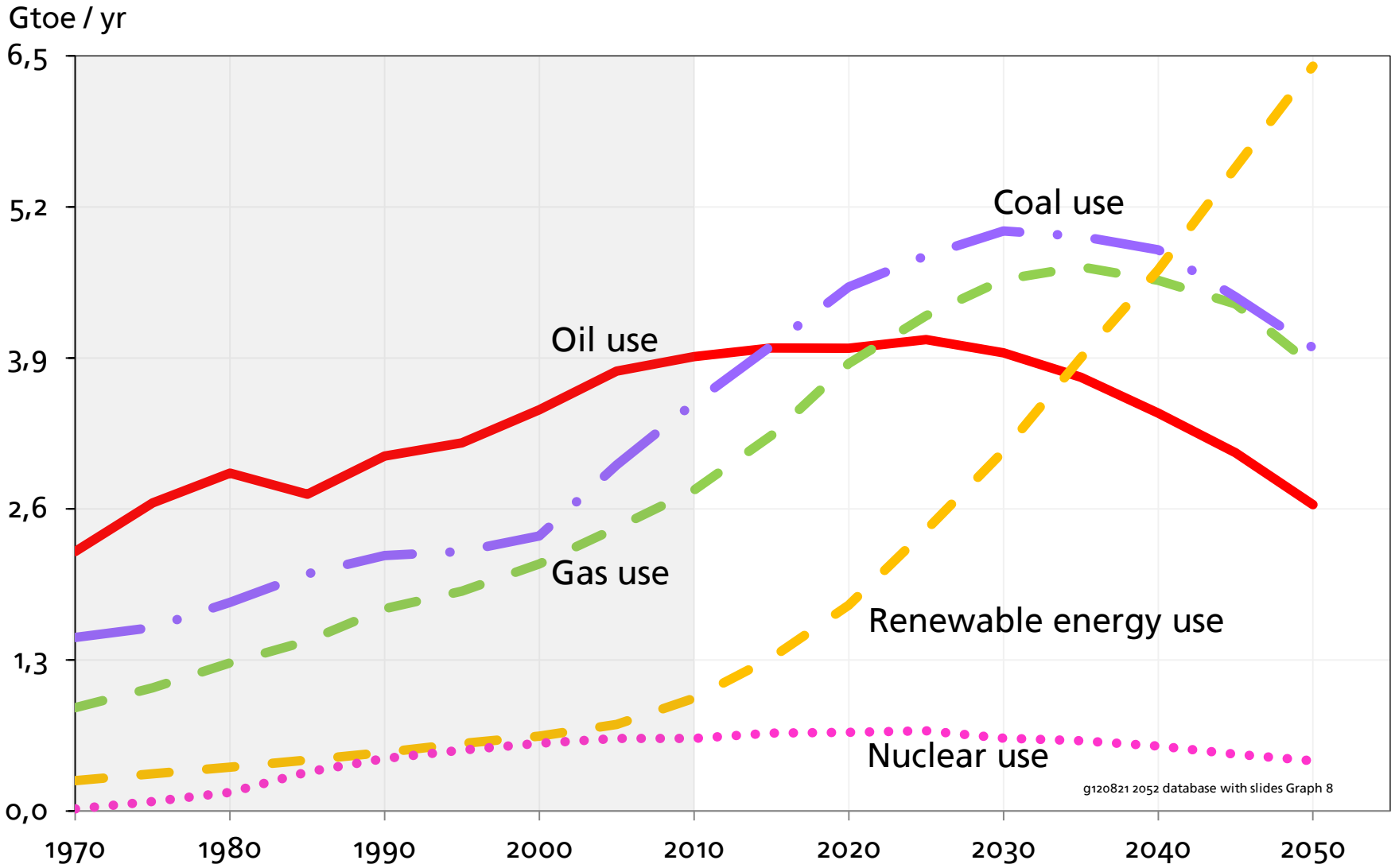


Figure 5-2: Energy Uses – World 1970 to 2052

World CO_2 emissions will peak in 2030

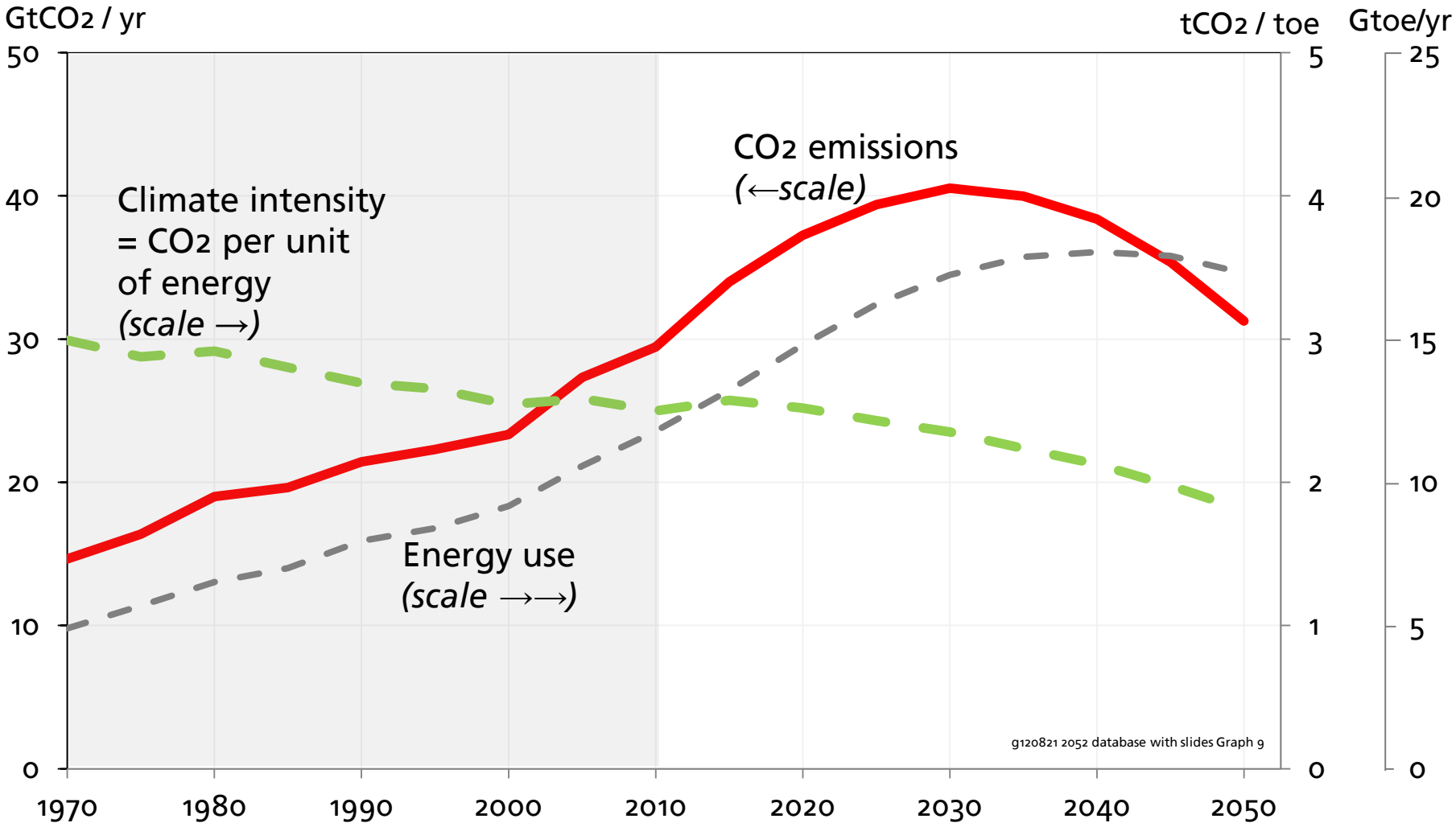


Figure 5-3: CO_2 Emissions from Energy Use – World 1970 to 2050.

Temperature and sea-level will rise

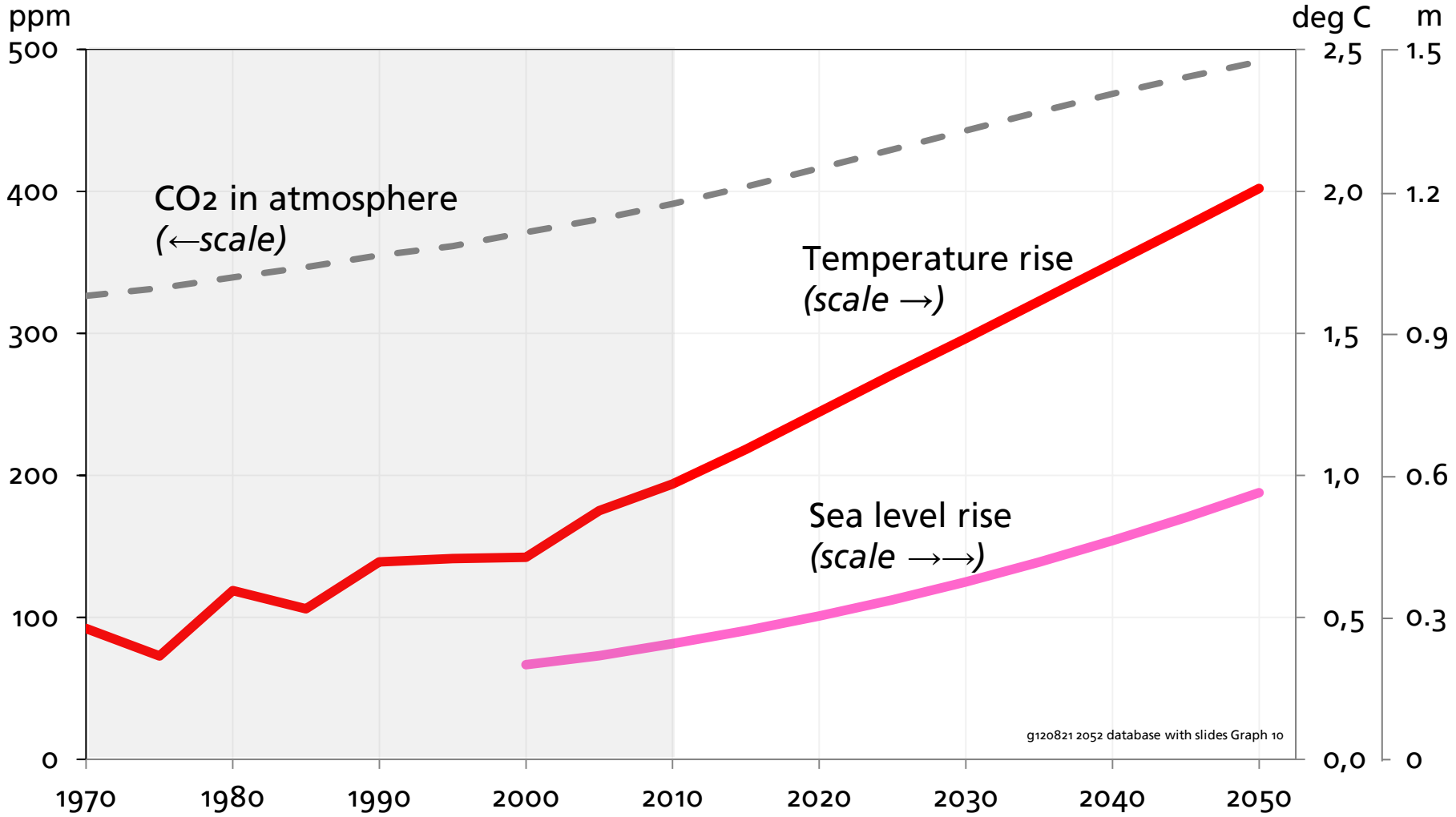
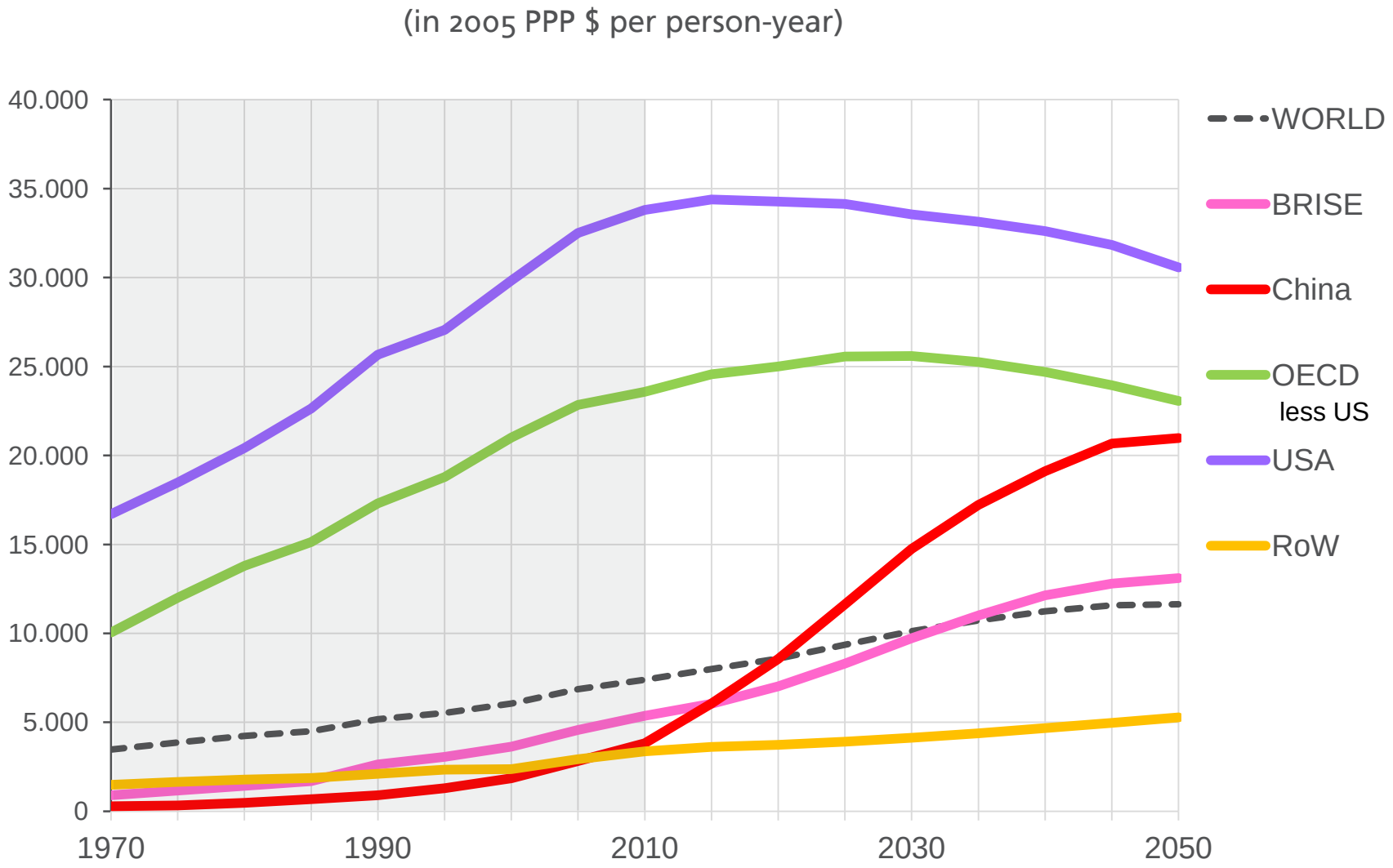


Figure 5-4: Climate Change – World 1970 to 2050

Average disposable income – 1970 to 2050



Source: Jorgen Randers, *2052*, Chelsea Green, Vermont, May 2012

Democratic decision making takes time

What should be done? – Globally

1. Slow population growth: Have fewer children, particularly in the rich world
2. Reduce the footprint: Eliminate fossil fuels, first in the rich world
3. Help the poor: Build a climate-friendly energy system in the poor world
4. Temper short-termism: Establish supra-national institutions
5. Establish new goals: Increase societal wellbeing in a world without growth

And so? Will this be the end of…

1. …capitalism?
   No, in spite of my desire for modification

2. …economic growth?
   Yes, GDP growth will slow toward 2052

3. …slow democracy?
   No, we won't speed up in spite of trying

4. …generational harmony?
   Yes, and we old will loose

5. …stable climate?
   Yes, unless there is extraordinary action

I don’t like what I see!