



# WHY MIGHT POPULATION INCREASE IN THE FUTURE

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Key Issue 4

# Objectives

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1. Summarize supporting and opposing Malthus' theory
2. Explain Stage 5 of DTM and future population
3. Explain reasons for Stage 5 in the Epidemiological Transition
4. Explain reasons for declining birth rates

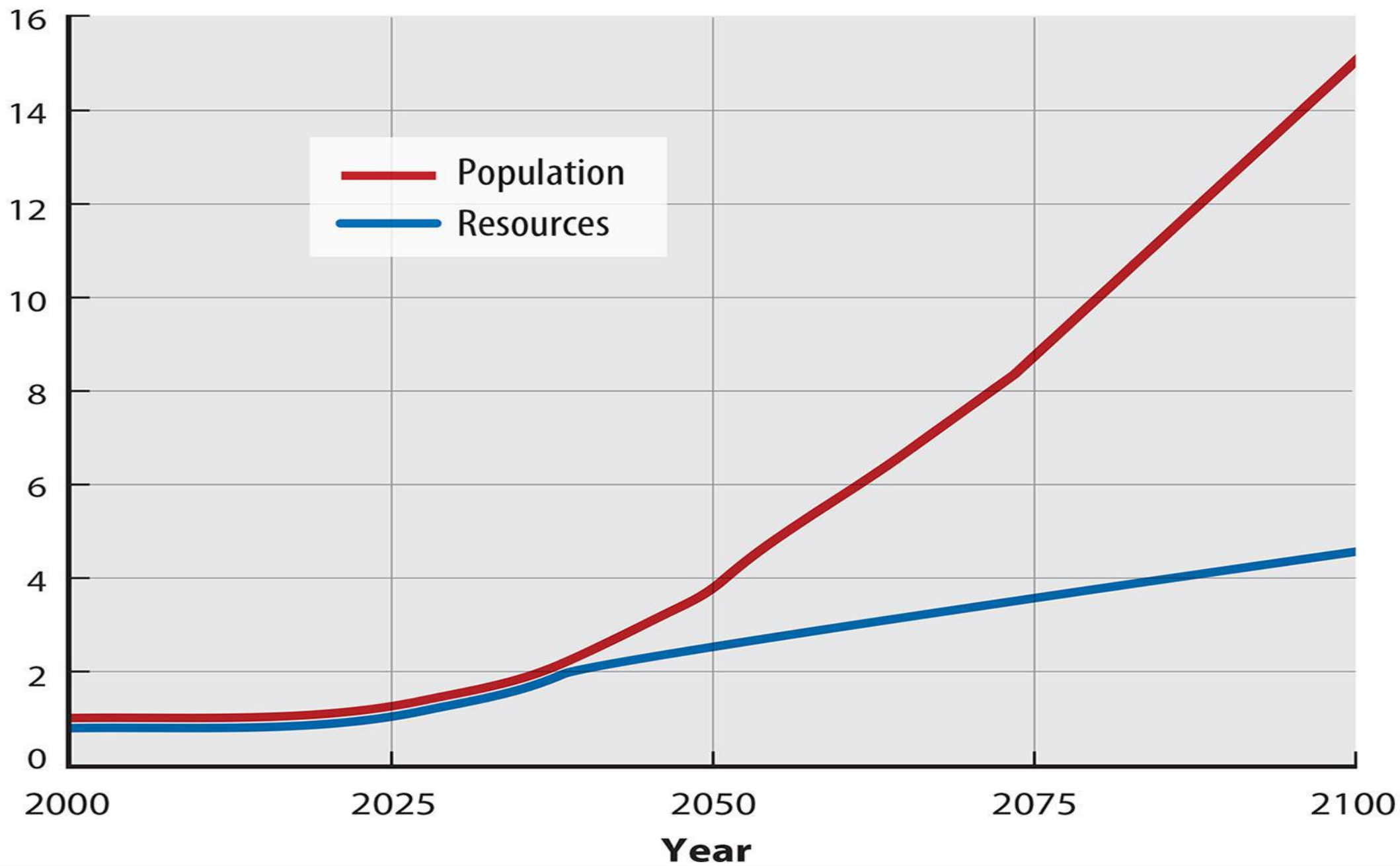
# Thomas Malthus (1766-1834)

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- 1<sup>st</sup> to argue that the world's population increase was outrunning the food supplies.
- Published *An Essay on Principles of Population*
  - Said population increased geometrically
  - Food supply increased arithmetically
  - Population growth would press against available resources in every country unless moral restraint, produced lower CBR or disease, famine, war or other disasters produced a higher CDR



Population and resources (units)





Characteristics of recent population growth make Malthus' theory more scary



Critics question the population growth and resource depletion predicted



Malthus was close on the resources but pessimistic on the population growth

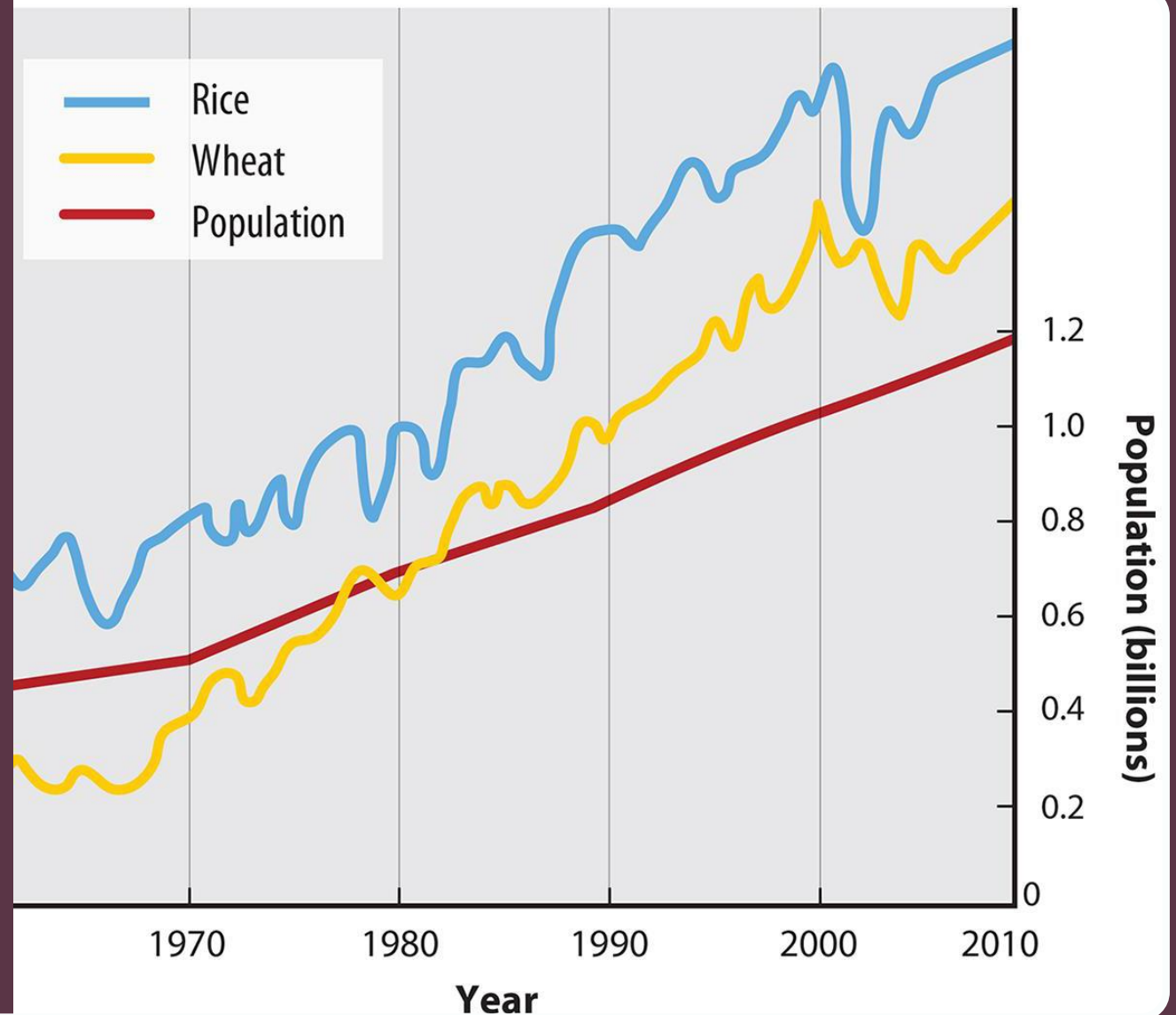


India Example

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## Contemporary Neo Malthusians and Critics

Better growing techniques, higher yielding seeds, and cultivation of more land led to greater food supply



# Critics on Population

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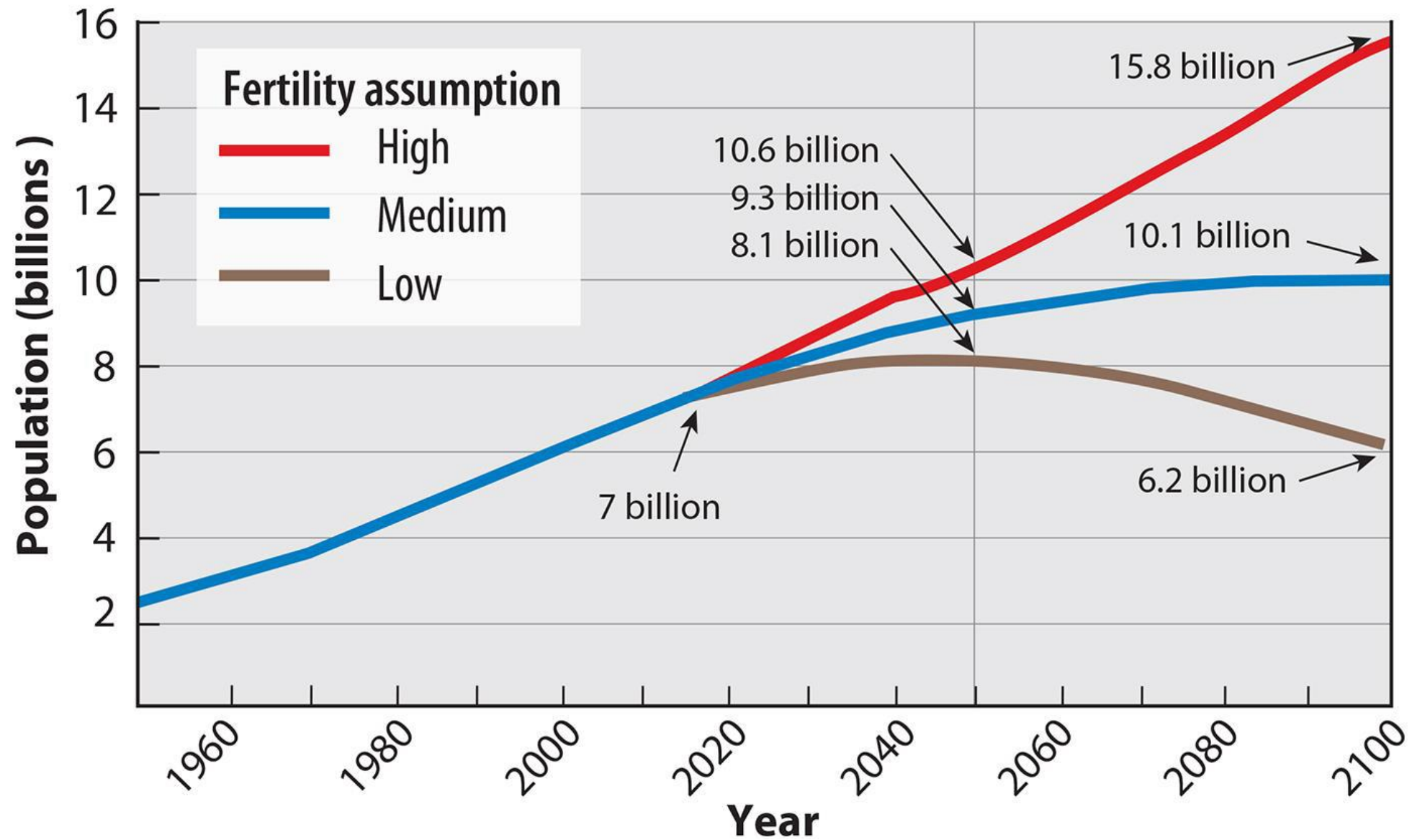
- Malthus was less accurate
- Model says population would quadruple during a half century
- Africa has rapid population growth
  - Land is unable to sustain the population

# Population Futures

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DTM And ETM



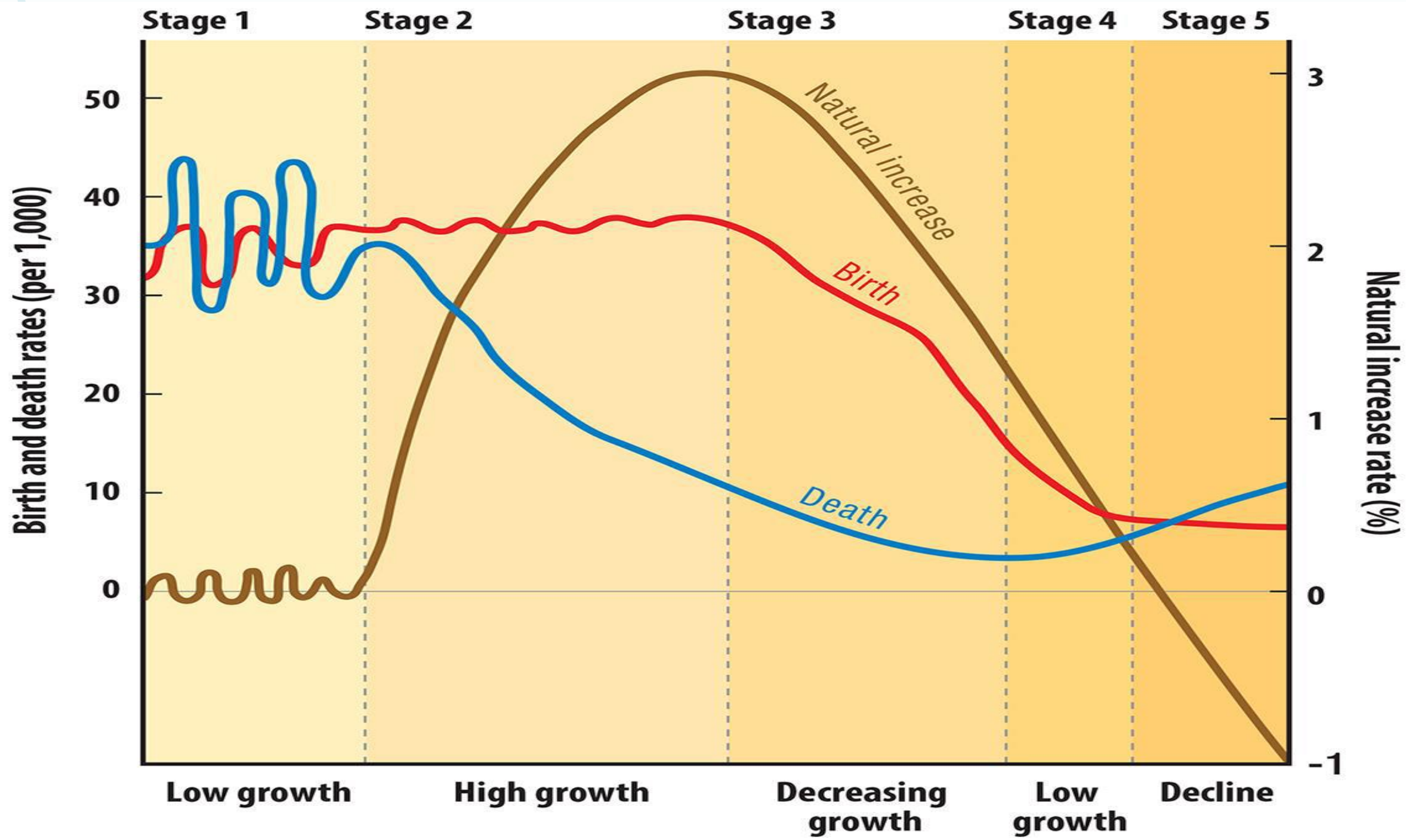


# Stage 5 DTM

- Very low CBR
  - Increasing CDR
  - Declining NIR
  - Predicted for some developed countries
  - Fewer young women reaching child bearing age deciding to have fewer children = Lower CBR
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## **Communist Countries**

- Several Communist countries already have a low NIR
- Low CBR pessimistic about having children
- High CDR inadequate pollution controls and inadequate reporting



# China One Child Policy

- One child policy 1980
- Couple needed a permit to have one child
- Received financial subsidies
- Long maternity leave, better housing, more land
- Contraceptives, abortions and sterilization

CBR declined from 18 to 12

NIR declined from 1.2 to 0.5

Govt abandoned policy in 2015



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# India Policy

- 1952 Family planning
- Clinics that provided alternative methods of birth control
- Free or low cost birth control devices
- Legalized abortions
- 1970s Sterilization camps
- Many feared forced sterilizations
- Family planning programs emphasize education
- Include advertising on TV and radio
- CBR dropped from 34 to 18 in 2015

# Japan and the DTM

Japan would be the first country to reach stage 5

UN Forecasts that the population in Japan will fall to 84 mil in 2100

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With decline comes increase in elderly

Economic challenges

Aging population

Less working aged people

How are they addressing the issue?

Encouraging more people to work

Japanese women – marry and raise children or stay single and work

Women are choosing to work

# Japan's Population Decline

