

# Demography

## Neolithic Revolution

- 10000 years ago
- Transition from hunter-gatherers to agriculture and raising animals
- Started in Mesopotamia (now Iraq)

## Demographic Revolution

- In the year 0 about 300M people
- Black Death from 1347-52 killed ~25M in Europe
- Industrial Revolution (~1750) -> better medicine -> more people
- James Watt "created" steam engine
- Agriculture -> "Fruchbau Wirtschaft" -> alternate crops
- Medicine -> 1739 Vienna gets sewers -> 1815 Edward Jenner creates Vaccines against smallpox
- 1909 Fritz Haber -> created ammoniac ( $\text{NH}_3$ ) as a fertilizer
- 1928 Alexander Fleming -> first antibiotic, Penicillin
- 1960 vaccine against Polio ("Kinderlaemmung")

## Population Boom

- 1650 500M

## Important People

- Thomas Malthus (1766-1834) -> claimed that with increasing resources the population of people increases exponentially (wrong)
- Paul Ehrlich (1932-now) -> biologist, author. 1968 -> release "The Population-Bomb", state that the death rate in the 70s will increase drastically, millions of people will starve (core point) (wrong)

## Population Distribution

- distribution is very uneven
- factors: climate, sea-level, work-opportunities
- northern hemisphere more densely populated
- see near cities advantaged -> climate, trade, food, etc.

## Distribution

- 60% Asian
- 17% Africans
- 9.5% Europeans
- 8.6% South Americans
- 4.9% North Americans

- ...

## **Mega cities**

- Population > 10M
- Trend towards living in cities
- 1850 -> 4 cities with more than 4M people (Paris, London, Tokyo, Peking)
- Lagos -> largest city Nigeria (14M people)
- Kinshasa -> 1900 - 30k people, 2022 - 15M people

## **Pull factors**

- healthcare
- social mobility
- hope for better work
- center of modern consumption
- education

## **Push factors**

- lack of education
- lack of healthcare
- lack of land/space
- poor economy and infrastructure
- natural disasters

## **Changqing**

1. Population: ~32M
2. What are the consequences of the dam: lots of electricity, raised the river bed
3. What river flows through the city: Yangtze, Xiaoling
4. Reason for the population boom: increase in trade, became a city state
5. How is the megacity supported by the CCP: tax bonuses and donations

## **Phases of population development**

- birth-rate (number of living people born per 1000 per year -> about 9)
- death-rate (number of deaths per 1000 per year -> about 9)
- fertility-rate (number of children per person able to give birth -> about 1.4)

## **The demographic transition**

- transition from high to low death-rate and birth-rate
  1. pre-industrial phase (birth- and death-rate are high) (in 16th and 17th century)

2. early-industrial phase/industrial revolution (better quality of life, death-rate sinks -> population growth) (1750-1820)
3. middle-industrial phase (even better quality of life, death-rate sinks strongly, birth-rate starts to sink) (1820-1940)
4. late-industrial phase (death-rate stays low, birth-rate sinks strongly, ways of living change rapidly -> contraception, focus on the individual, etc) (1965, 2000)
5. post-industrial phase (birth- and death-rate are low -> population count is stable) (2000-now)