SPRING SERIES ON DEMOGRAPHY

SESSION 2: POPULATION & ENVIRONMENT

APRIL 20, 2022 POPULATION CONNECTION

INTRO TO DEMOGRAPHY REVIEW

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Women's educational attainment vs. number of children per woman



Shown on the x-axis is the average number of years of schooling of women in the reproductive age (15 to 49 years). On the y-axis you find the 'total fertility rate' – the number of live births per woman in reproductive age.







HUNTER- GATHERERS

Carrying capacity: the number of people that can be supported in an area given the available physical resources and the way that people use those resources

AGRICULTURAL REVOLUTION



Population, 10,000 BCE to 2021





OurWorldInData.org/world-population-growth • CC BY

INDUSTRIALIZATION

1804: 1 BILLION 1927: 2 BILLION 1960: 3 BILLION 1974: 4 BILLION 1987: 5 BILLION 1999: 6 BILLION

2021: 7.9 BILLION 2050: 9.2 BILLION? 2100: 10.9 BILLION?







Population, 10,000 BCE to 2021





Data sources: Our World in Data based on HYDE, UN, and UN Population Division [2019 Revision] This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing.

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Average annual rate of population change (%), 2020-2025 (medium-variant projection)



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Data source: United Nations, DESA, Population Division. World Population Prospects 2019. http://population.un.org/wpp/

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the leimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Fertility rate vs the share living in extreme poverty, 2015





Source: UN Population Division (2017 Revision), World Bank

Population growth rate by level of development

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Historic population growth rates by the level of development of the region, with projections to 2099 using the UN medium scenario.



Source: United Nations – Population Division (2019 Revision) Note: More developed regions comprise Europe, Northern America, Australia/New Zealand and Japan; less developed regions comprise all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia; least developed countries are 48 countries, 33 in Africa, 9 in Asia, 5 in Oceania plus one in Latin America and the Caribbean.

Many least developed countries will continue to experience rapid population growth between 2019 and 2050



Population Growth Heightens Climate Change Risks







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NUMBER OF PEOPLE BY INCOME AND REGION

Each cube is 100 million people, colored by region.

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Assuming that current trends continue, this is what the world might look like in 2040.



Dollars are adjusted for price differences and inflation. Sources: Gapminder based on PovcalNet, World Bank and IMF. See: gapm.io/incm





Annual CO₂ emissions from fossil fuels, by world region



Source: Global Carbon Project OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY Note: This measures CO₂ emissions from fossil fuels and cement production only – land use change is not included. 'Statistical differences'

Per capita CO₂ emissions, 2020

Our World in Data

Carbon dioxide (CO₂) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.



UNEQUAL ACCESS TO NATURAL RESOURCES



The top 20 companies have contributed 480bn tonnes of carbon dioxide equivalent since 1965



The top 20 companies have contributed 35% of all carbon dioxide and methane since 1965



Guardian graphic | Source: Richard Heede, Climate Accountability Institute.

Guardian graphic | Source: Richard Heede, Climate Accountability Institute. Note: table includes emissions for the period of 1965 to 2017 only.





Note: Chart shows growth in per capita emissions, by emissions percentile Source: World Inequality Lab



POPULATION & ENVIRONMENT