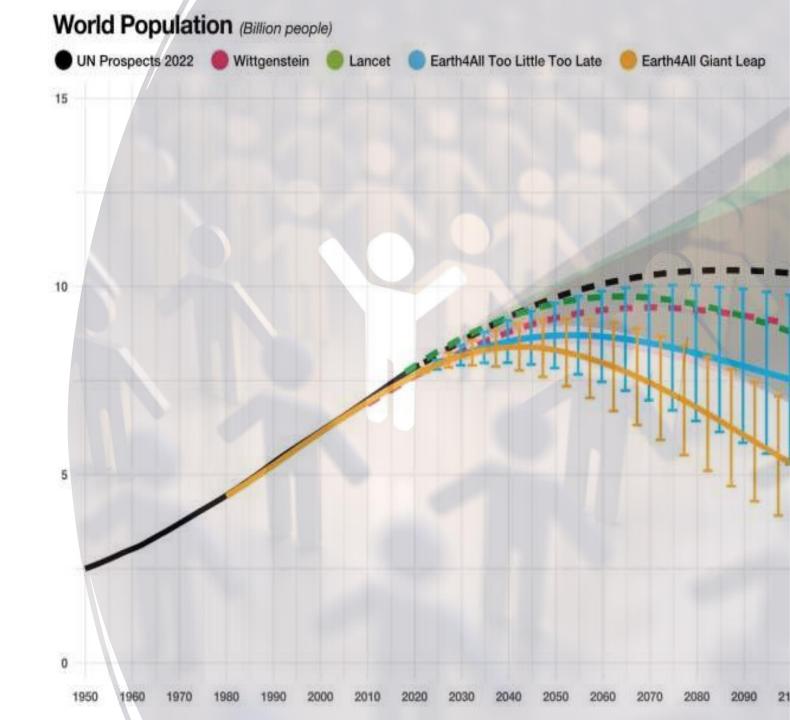
Dispelling Demographic Delusions

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Article

Demographic Delusions: World Population Growth Is Exceeding Most Projections and Jeopardising Scenarios for Sustainable Futures

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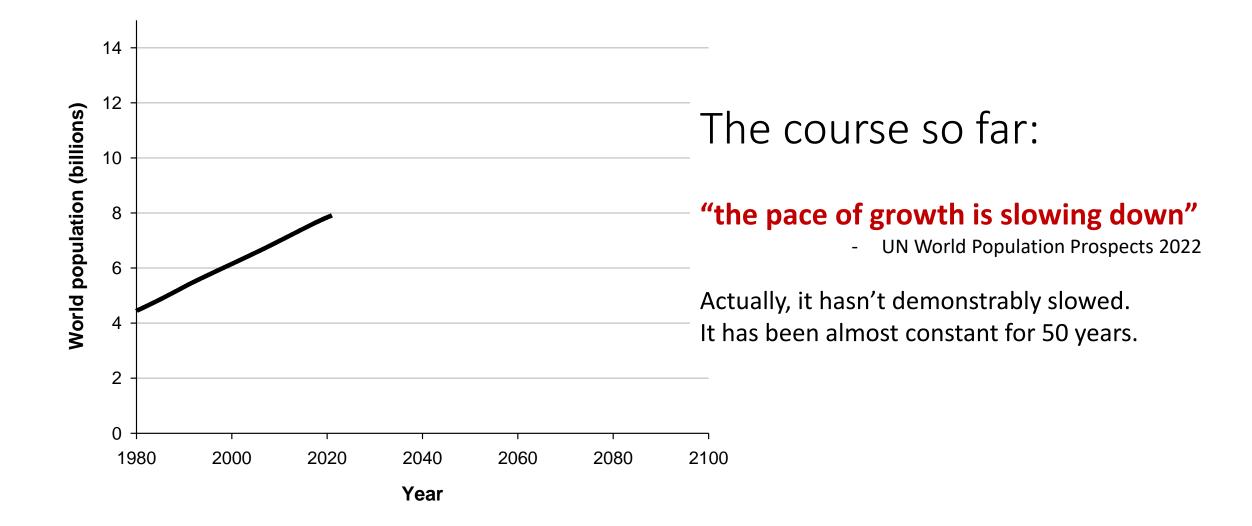
Abstract: The size of the world's population has profound implications for demand for food, energy and resources, land use change and greenhouse gas emissions. This study examines why most population projections have underestimated world population growth, and the implications for actions required to achieve sustainable societies. The main determinant of future population is family size choices. Population projections by different research groups embed different assumptions about drivers of fertility decline. The common assumptions that fertility decline is driven by economic betterment, urbanisation or education levels are not well supported in historical evidence. In contrast,

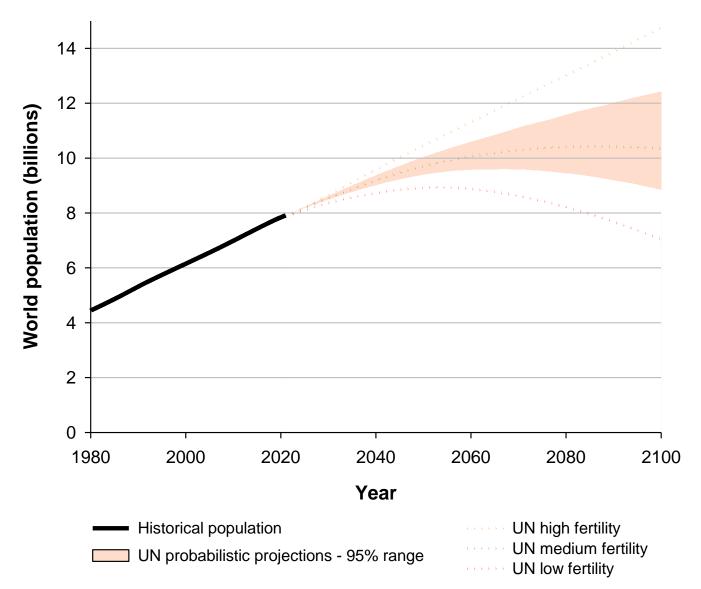
What's this about?

- Unrealistically low projections breed complacency.
- Worse, they embolden attacks on people who raise population concerns.
- Without renewed action, world population is headed for well over 11 Billion

Why does it matter?

- The point is not merely to avoid bigger numbers, it is to avoid population being limited by increased mortality from famine and war.
- What would that look like?
 - An extra <u>100 million premature deaths per year</u>, every year, for decades. (compare with Covid-19: 7 – 10 million per year for a couple of years; AIDS: about 40 million deaths over 40 years.)
 - ➢ Massive refugee movements would create global chaos.

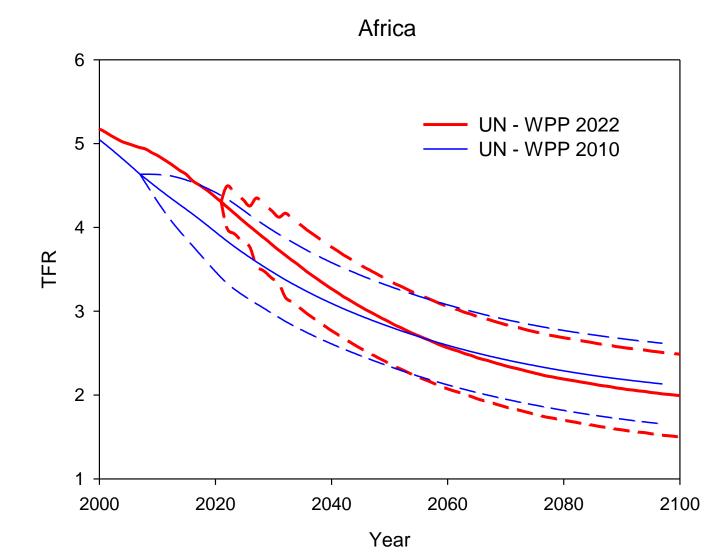




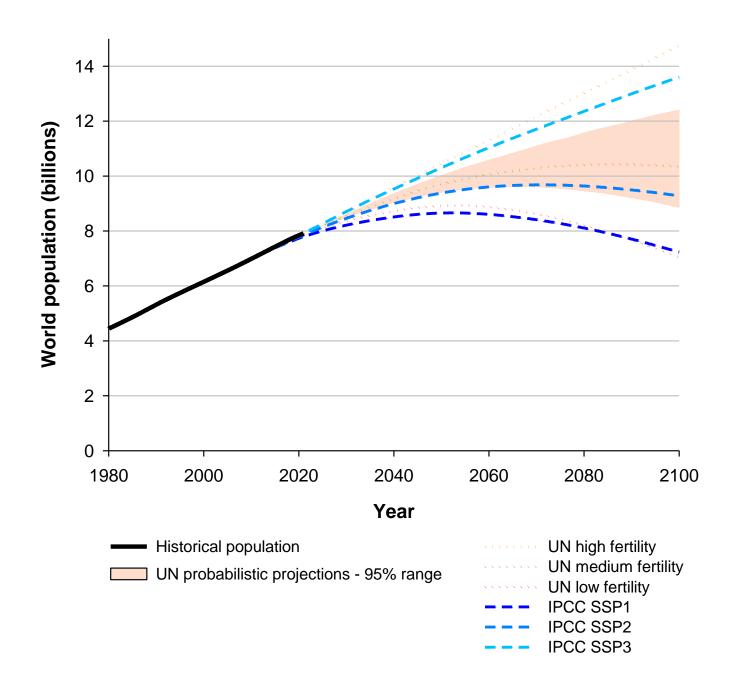
UN 2022 update:

- World population to peak in 2086 at 10.4 bn.
- (Revised downward from 2019 projection.)
- High and Low projections are illustrative, not plausible scenarios.

High and Low scenarios are not realistic



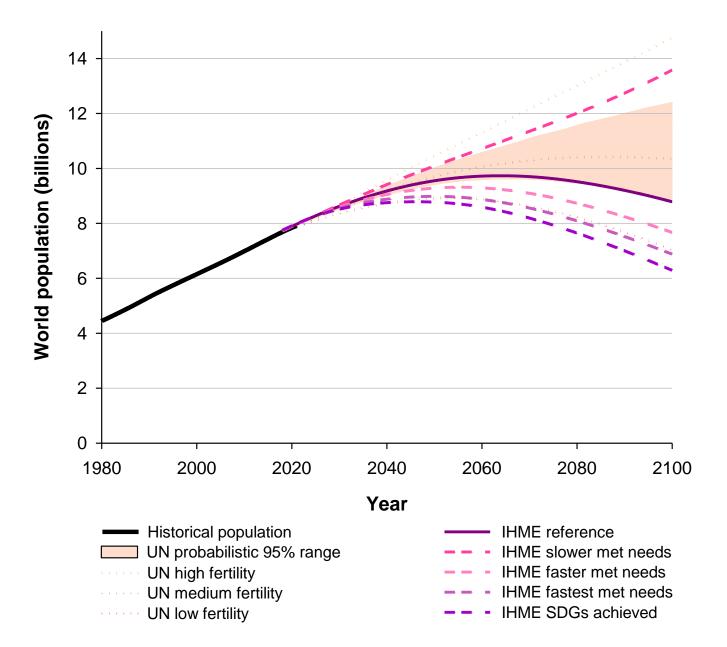
- They don't model faster or slower fertility decline.
- They simply add or subtract half a child per woman to TFR in every country.
- Revisions acknowledge slower progress in the past.
- But anticipate faster progress in the future!



Wittgenstein Centre's SSP projections:

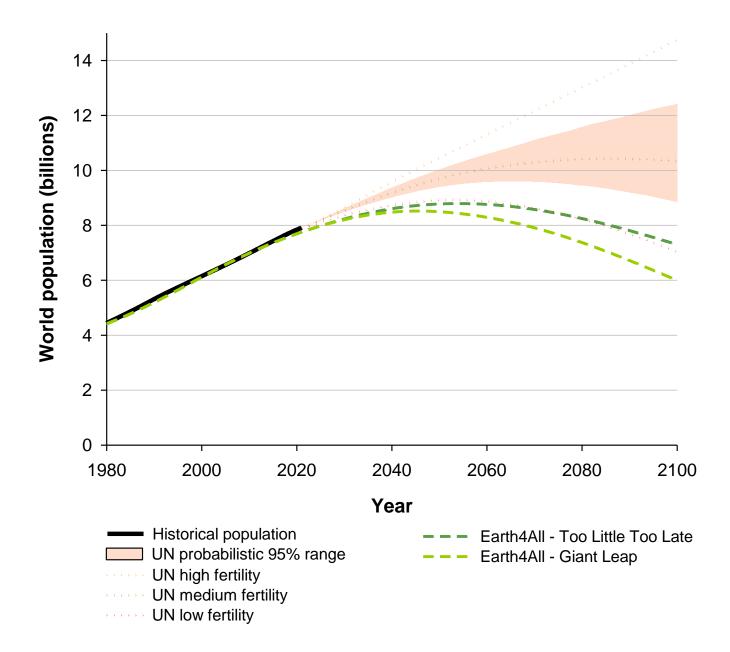
- Standard run (SSP2) is much lower than the UN's, peaking below 10 bn.
- High and Low projections presented as plausible depending on development path.
- IPCC's scenarios for successful climate change mitigation require low projections:

"As a matter of fact, reaching the lowest target of 2.6 W/m² from an SSP3 baseline was found **infeasible** across all IAM models" Riahi et al., 2017



IHME/Lancet projections:

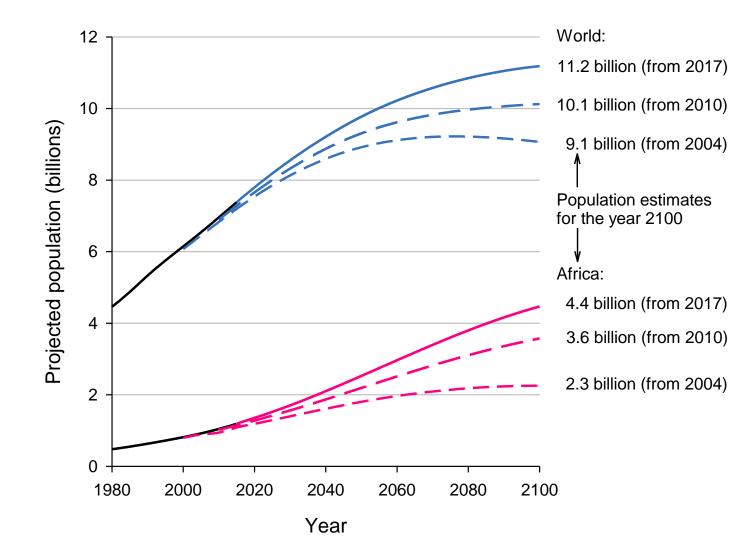
- Standard run similar to SSP2.
- Scenarios go even lower than UN Low.
- Emphasis on women's education.



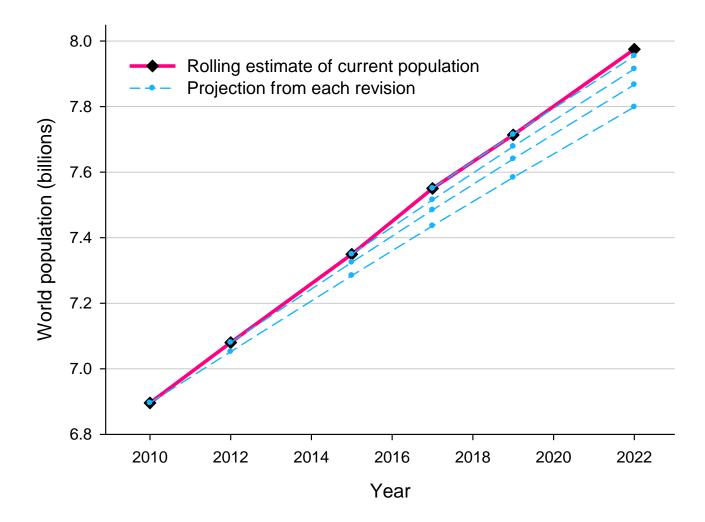
Earth4All (Club of Rome) projections:

- Standard run similar to UN's Low-fertility!
- On this basis, they dismiss population as an environmental concern.
- No plausible rationale.

UN repeatedly revised upward this century



Each revision found previous one underestimated growth.

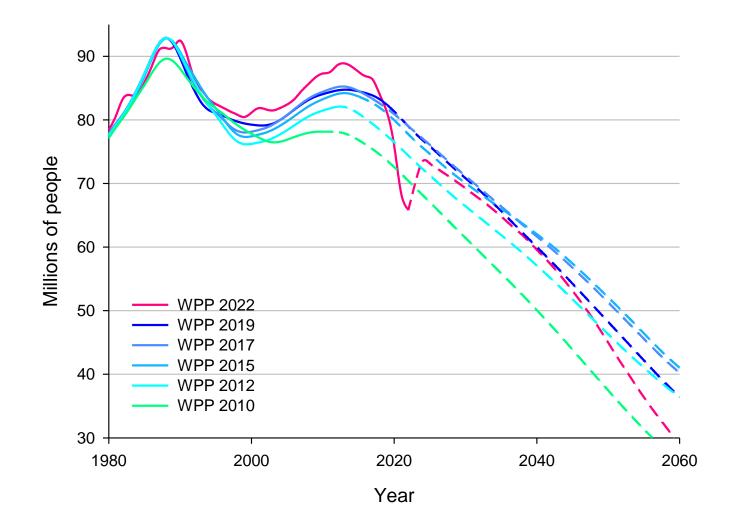


UN 2022 Revision:

- World population estimated at 7.975 bn.
- 21 million more than the mid-2022 population projected in 2019 revision (despite Covid-19).
- 177 million more than projected in 2010.
- 253 million more than projected in 2000.

But expects more rapid deceleration in future!

Past increments revised upward, but future increments revised downward!



Annual increment:

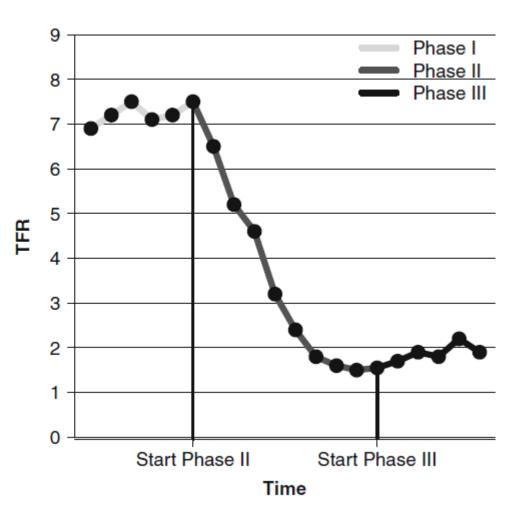
- Solid lines past estimates
 Dashed lines future projection
- Revisions revise the past as well as the future.
- Up to 2017, more growth in the past meant more in the future.
- Since 2019, steeper declines projected despite recalcitrant growth so far.

The UN projections assume all high-fertility countries have rapid fertility decline.

Fig. 2 Illustration of the three phases of the evolution of the TFR

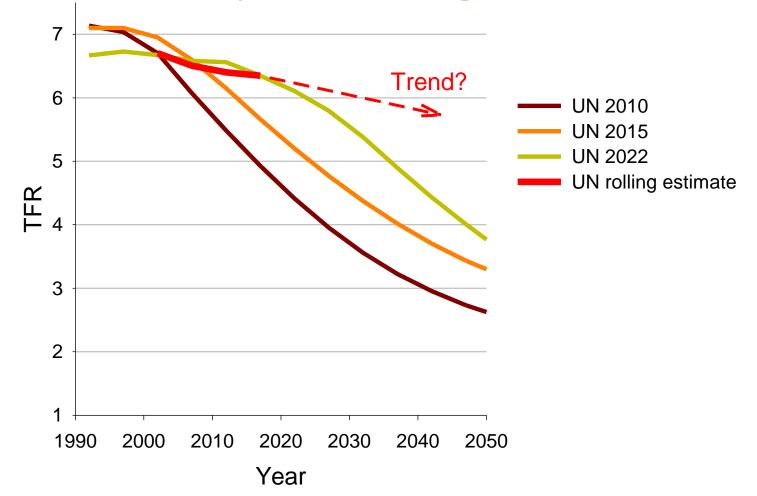
"The observed trends in TFR in Phases II and III are used to develop a model for each phase. Phase I is not modeled because the TFR in all countries has now started to decline, so Phase I is not relevant for projections."

Alkema, L.; Raftery, A.E.; Gerland, P.; Clark, S.J.; Pelletier, F.; Buettner, T.; Heilig, G.K. Probabilistic projections of the total fertility rate for all countries. *Demography* **2011**, 48(3), 815–39. <u>https://doi.org/10.1007/s13524-011-0040-5</u>



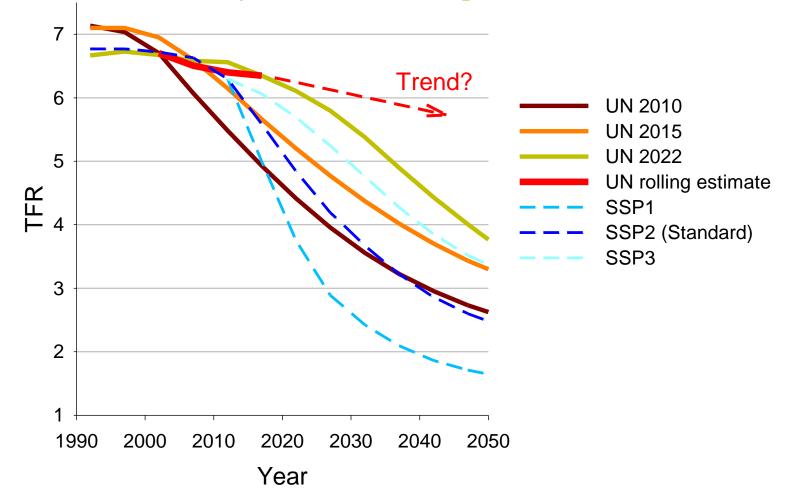
Persistent over-optimism about TFR in Africa

Democratic Republic of the Congo



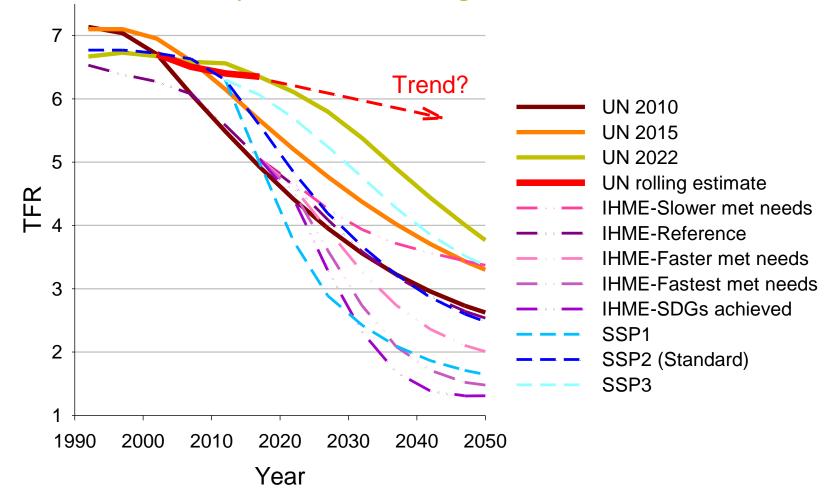
Persistent over-optimism about TFR in Africa

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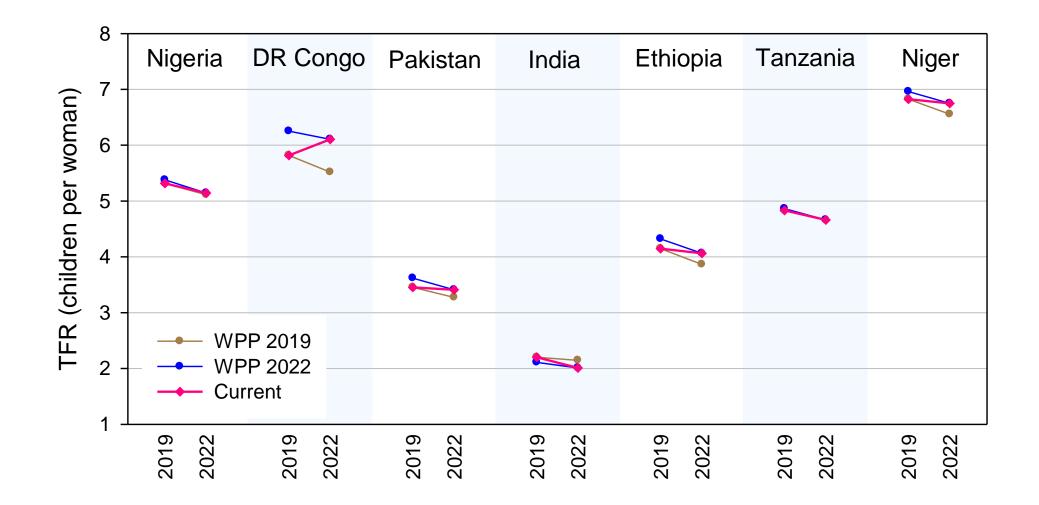


Persistent over-optimism about TFR in Africa

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2019 vs 2022 fertility revisions: most are upward



What have we learned?

- UN has persistently underestimated growth and overestimated fertility decline in high-fertility countries.
- Other projection groups are anticipating even faster fertility declines.
- None advocate population-targeted interventions to make it happen.
- All maintain that education and development are the main drivers.

Why did fertility decline slow?

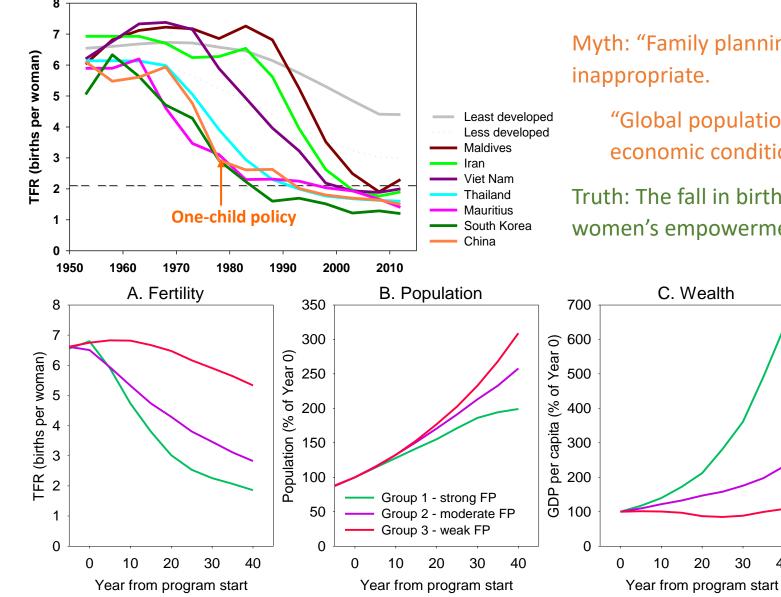
- Since the 1994 UN Conference on Population and Development, governments were discouraged from having population-focused interventions.
- Family planning should be provided for the sake of women's reproductive health and rights, always voluntary. *This was always the position of the family planning movement.*
- Myth that population-motivated programs undermine women's rights. Historically, they have contributed enormously to women's betterment.
 We should see these as synergistic goals, not antagonistic.

The UNFPA is rewriting history:

- that birth control programs had been conducted "without heed to people's reproductive aspirations, their health, or the health of their children."
- "... engineering population numbers has not proven successful in the past. Rather, it only serves to undermine human rights."

Ineffective? There have never been more effective development interventions than family planning programs

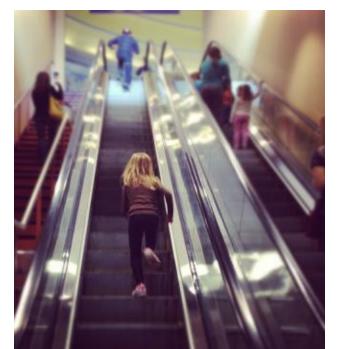
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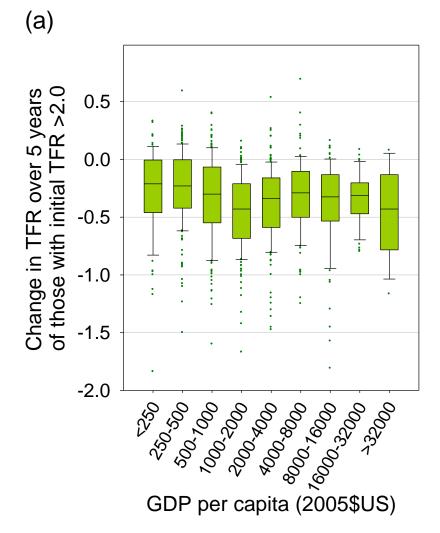
Myth: "Family planning programs were unnecessary, ineffective and

"Global population is stabilising anyway, driven by improving economic conditions and girls' education."

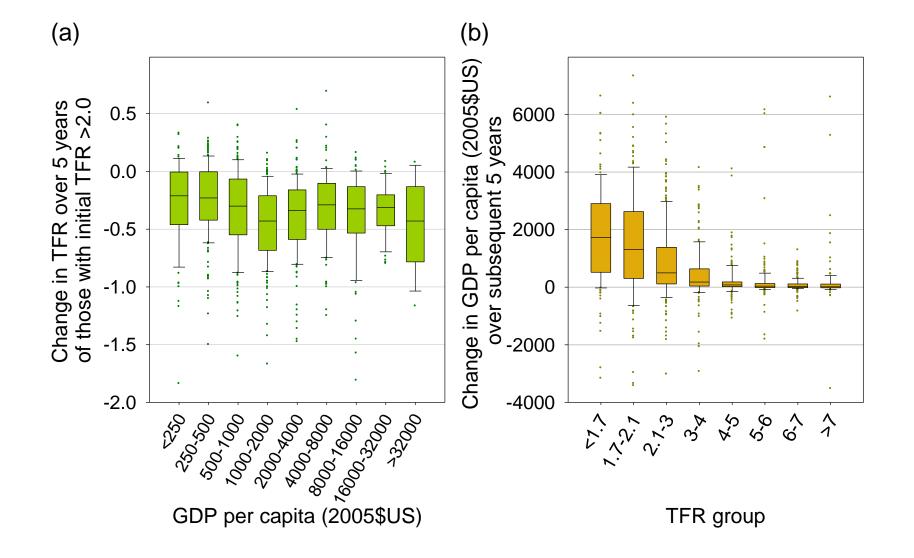
Truth: The fall in birth rates enabled economic betterment and women's empowerment, to a much greater extent than the reverse.



Did development drive fertility decline? Or vice versa?



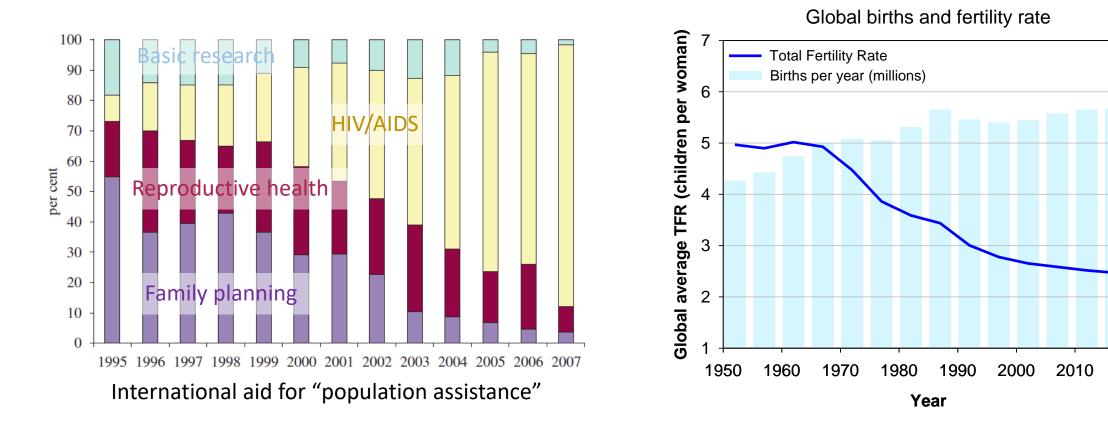
Did development drive fertility decline? Or vice versa?



Since the 1994 UN Conference in Cairo, funding plummeted, fertility declines stalled and more women have unmet need for contraception

"The ultimate tragedy is that the idealism at Cairo has actually left women worse off." Malcolm Potts

Millions of births per year

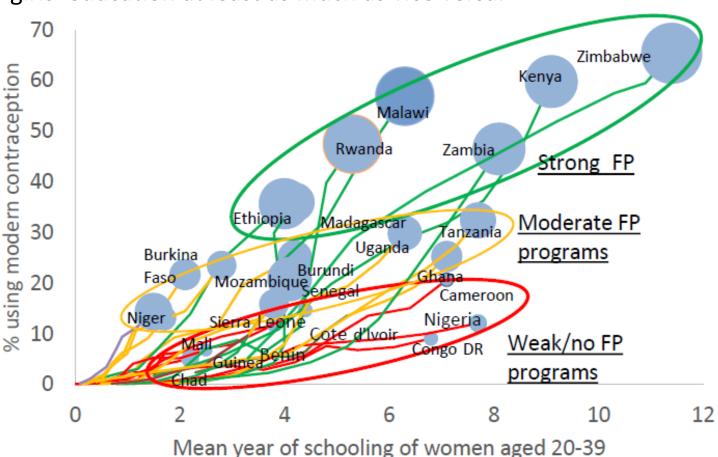


Girls' education is not more effective than directly promoting small families

- It helps, but not strongly in the absence of family planning efforts.
- Family planning promotes girls' education at least as much as vice versa.

Contraceptive prevalence by level of female education and family planning effort, 1970-2015

Source: Bongaarts and Hardee. 2019. Trends in Contraceptive Prevalence in Sub-Saharan Africa: The Roles of Family Planning Programs and Education. *African Journal of Reproductive Health.*



It's not about deflecting blame for unsustainability



Minimising population growth is first and foremost a humanitarian imperative:

- Food and water security
- Economic betterment
- Women's health, rights and empowerment
- Peace and stable governance
- Climate change adaptation/resilience

It is nevertheless essential for:

- Limiting biodiversity loss
- Keeping warming below 2°C

"Family planning could bring more benefit to more people at less cost than any other single technology now available to the human race."

UNICEF Report 1992

Thank you!