

Insights for avoiding Global Collapse

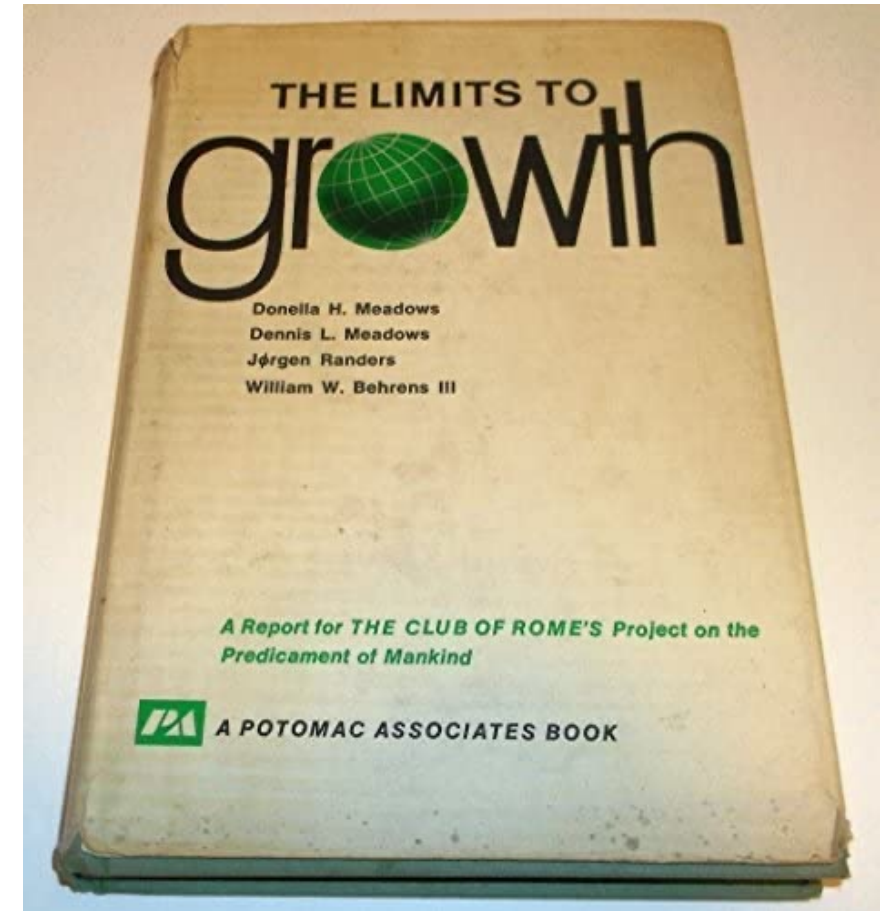
February 2023, Gaya Herrington

The illustration features two hands, one on the left and one on the right, reaching towards each other. A glowing, multi-colored line (yellow, green, and blue) connects the tips of the fingers. The background is a gradient from red on the left to green on the right, with abstract patterns of lines and dots. There are also some icons of nodes and connections scattered throughout the background.

“Predicament of humankind”



Limits to Growth in 1972

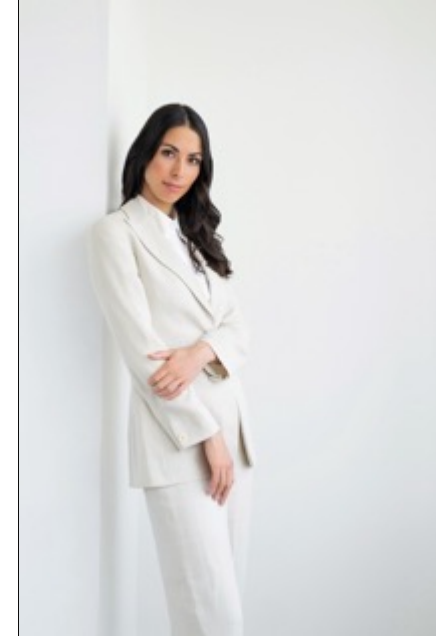




Bio

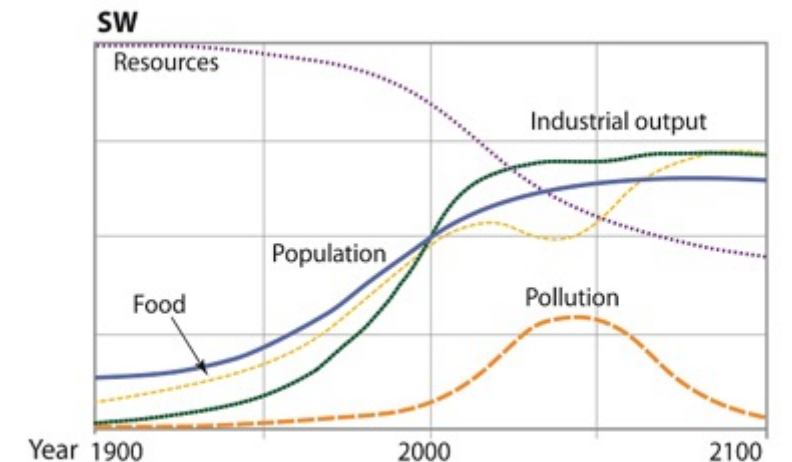
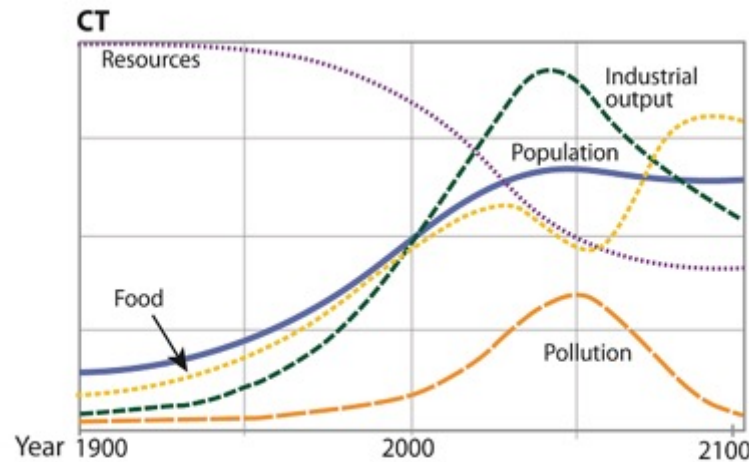
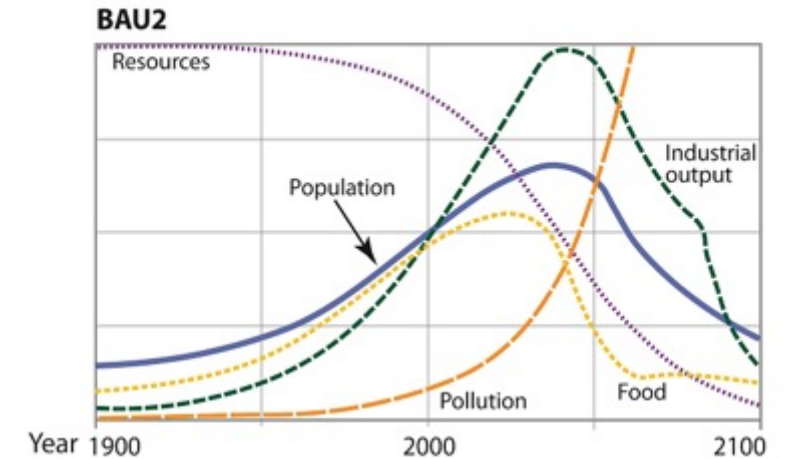
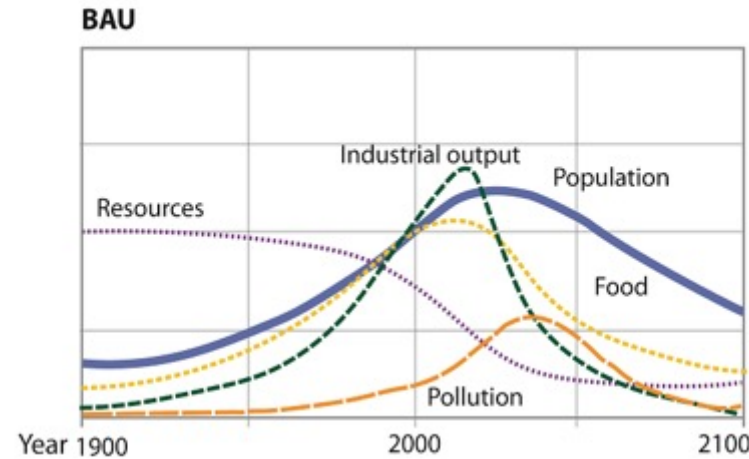
- Published author and systems thinker in sustainability
- Vice President Sustainability Research, Schneider Electric
- Club of Rome Advisor
- Master in Econometrics from the Liberal University of Amsterdam, and a Master in Sustainability from Harvard University

Gaya Herrington



The Limits to Growth scenarios

Different scenarios for global developments were generated by varying assumptions about technological innovation, nonrenewable resources, and societal priorities.

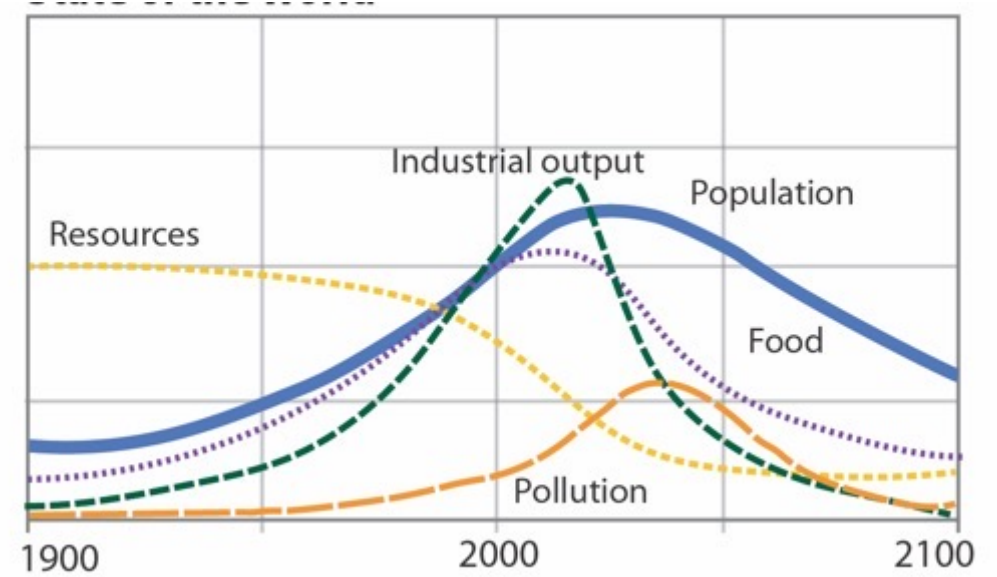


Source: Meadows, D. (2012). *Thinking in systems*. White River Junction, VT: Chelsea Green. ; Meadows, D. H., Meadows, D. L., Randers, J., Behrens, W. W. (1972). *The limits to growth : A report for the Club of Rome's project on the predicament of mankind*. New York: Universe Books.;

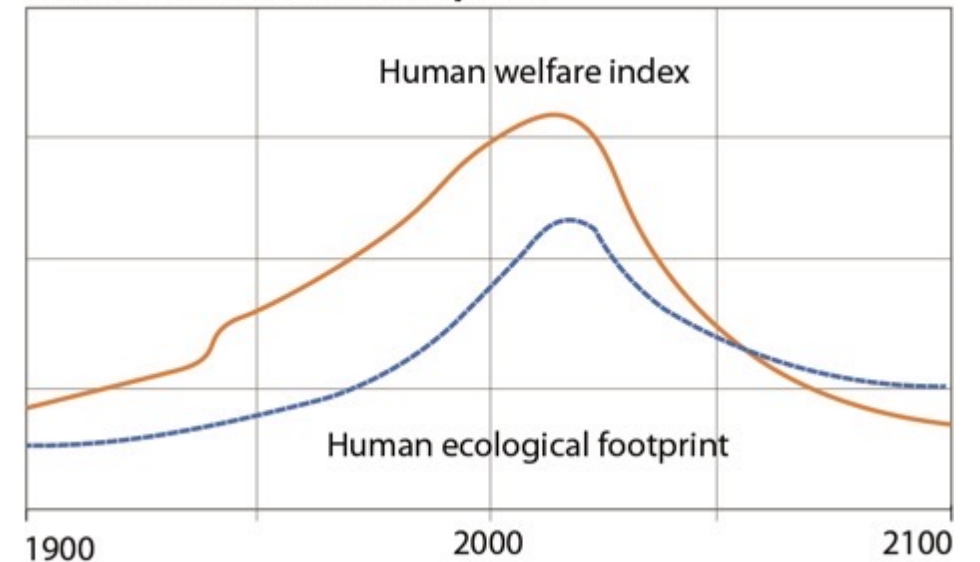
BAU

Some scenarios end in sharp declines, i.e., a collapse, including the “business as usual” scenario (BAU). This scenario runs on historical averages.

Collapse in this context did not mean that humankind would cease to exist altogether, just that next generations would be significantly worse off than previous ones, as for example can be seen from the human welfare index.



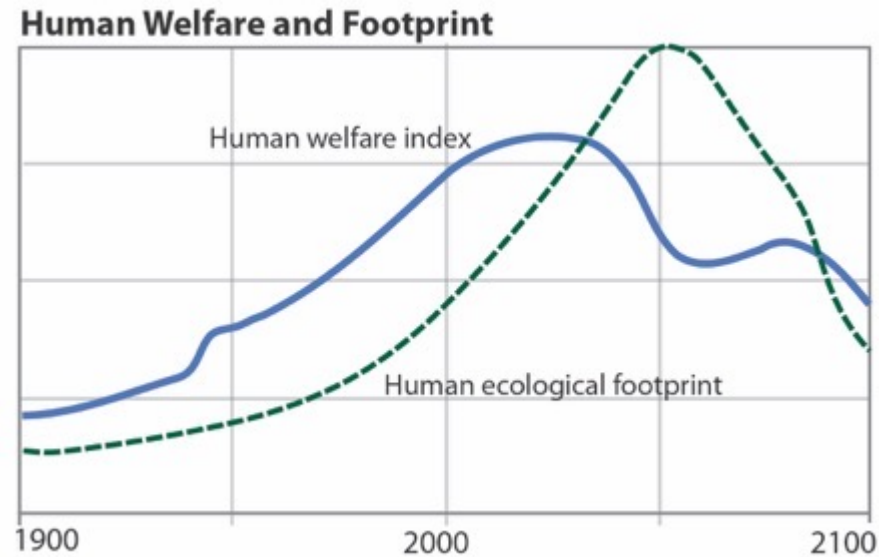
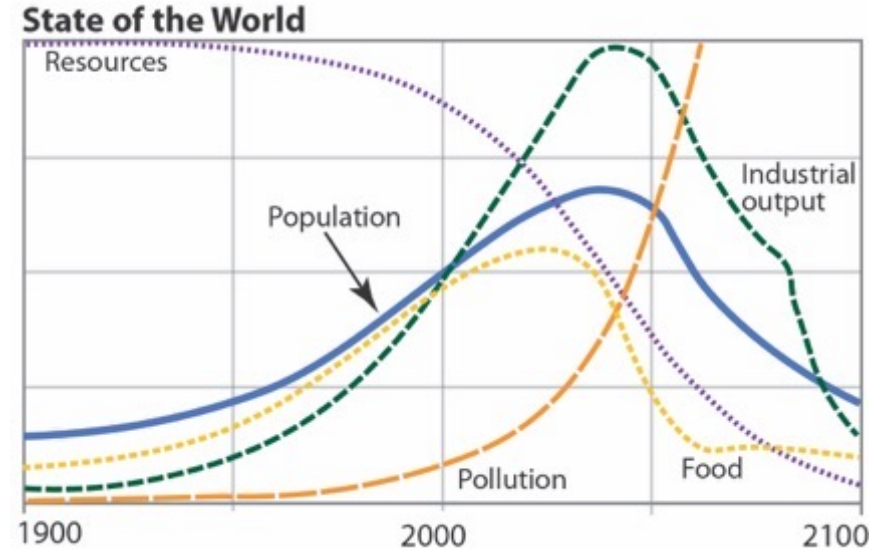
Human Welfare and Footprint



BAU2

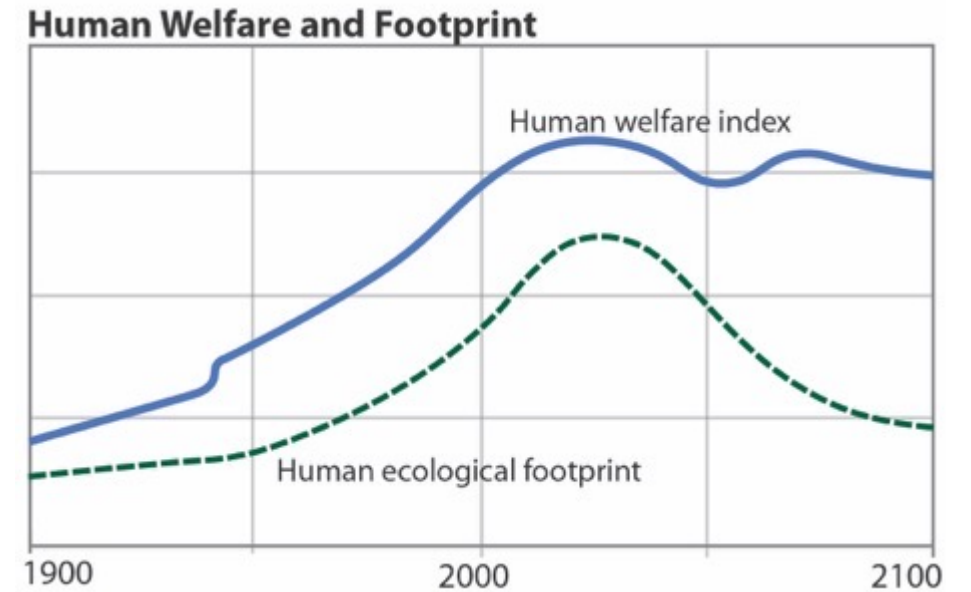
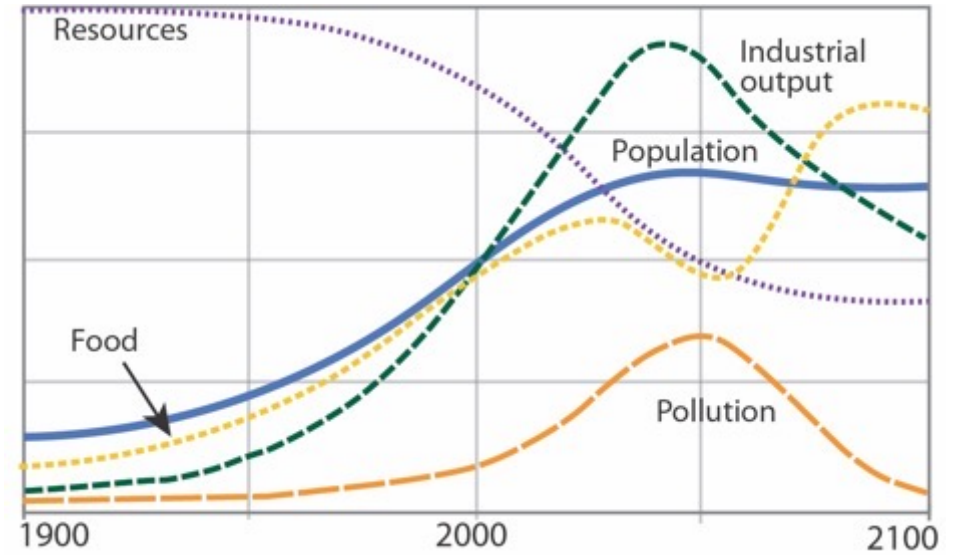
The “business as usual 2” scenario (BAU2) is assumed to have twice the amount of nonrenewable resources as in BAU. No other difference in assumptions.

More resources delay, but do not avoid the collapse. It cause changes from resource depletion to the effects of pollution (which would include climate change), and the decline becomes steeper.



CT

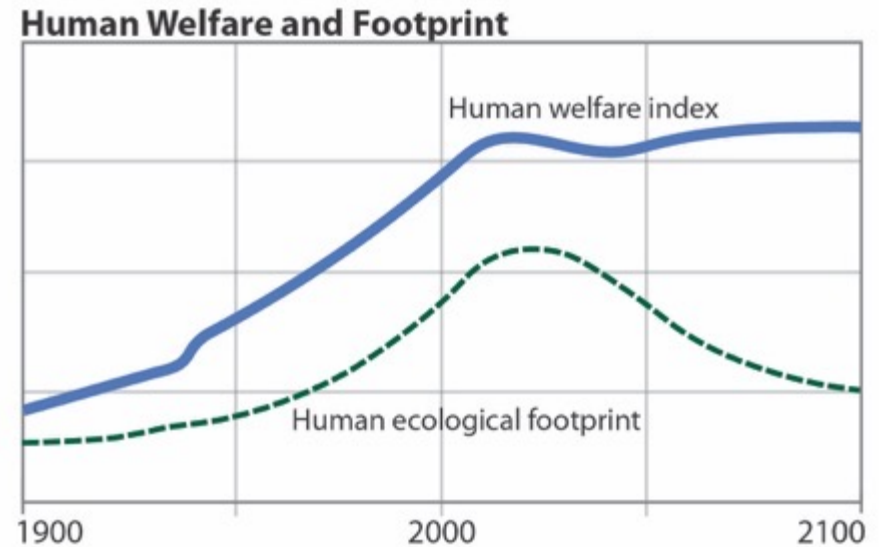
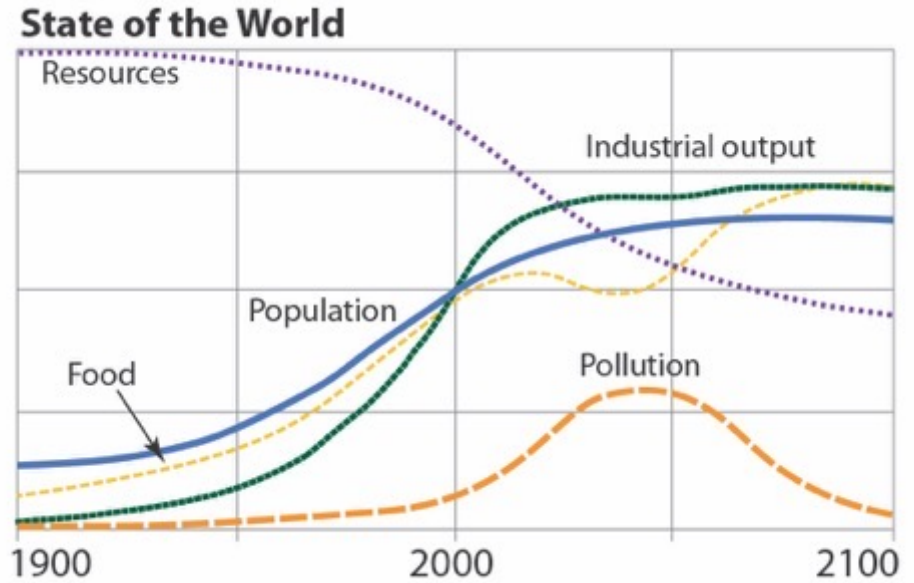
Not all scenarios displayed steep declines; Comprehensive Technology (CT) assumed unprecedentedly high technological innovation rates. This does avoid a collapse, although there are still some declines.



SW

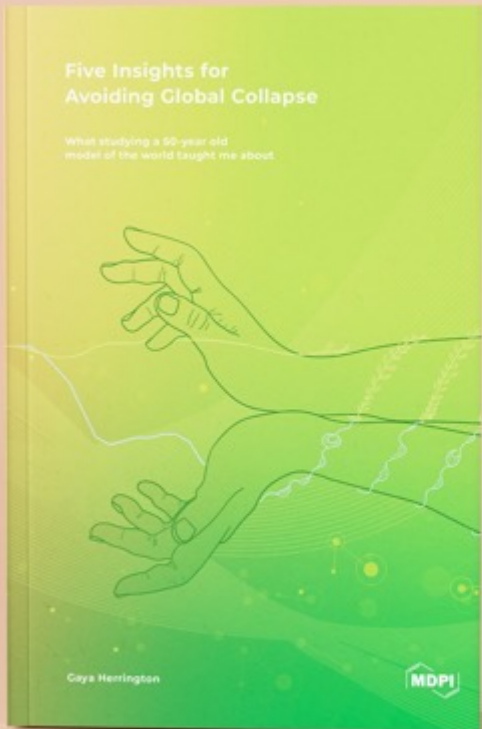
The LtG team also identified a set of assumptions that produced a “stabilized world” (SW) scenario in which collapse was avoided and welfare remained high.

In SW, *in addition to the high innovation rates in CT*, humanity consciously limits its material consumption, and diverts resources away from industrial output towards human services, here: education and health.



My research

I conducted a [2020 empirical update](#), peer-reviewed and published in Yale's *Journal of industrial ecology*.



2022 update available in [my book](#), including more background research.

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A 1970s paper predicted societal collapse in 2040 - here's what the analyst who confirmed it says

Her Harvard thesis offers a bleak outlook on the course of civilization but sustainability expert Gaya Herrington tells Louise Boyle that the worst-case scenario is not inevitable. 'We need to completely re- envision what our role is in the world'



MOTHERBOARD
THEY'RE VICE

MIT Predicted in 1972 That Society Will Collapse This Century. New Research Shows We're on Schedule.

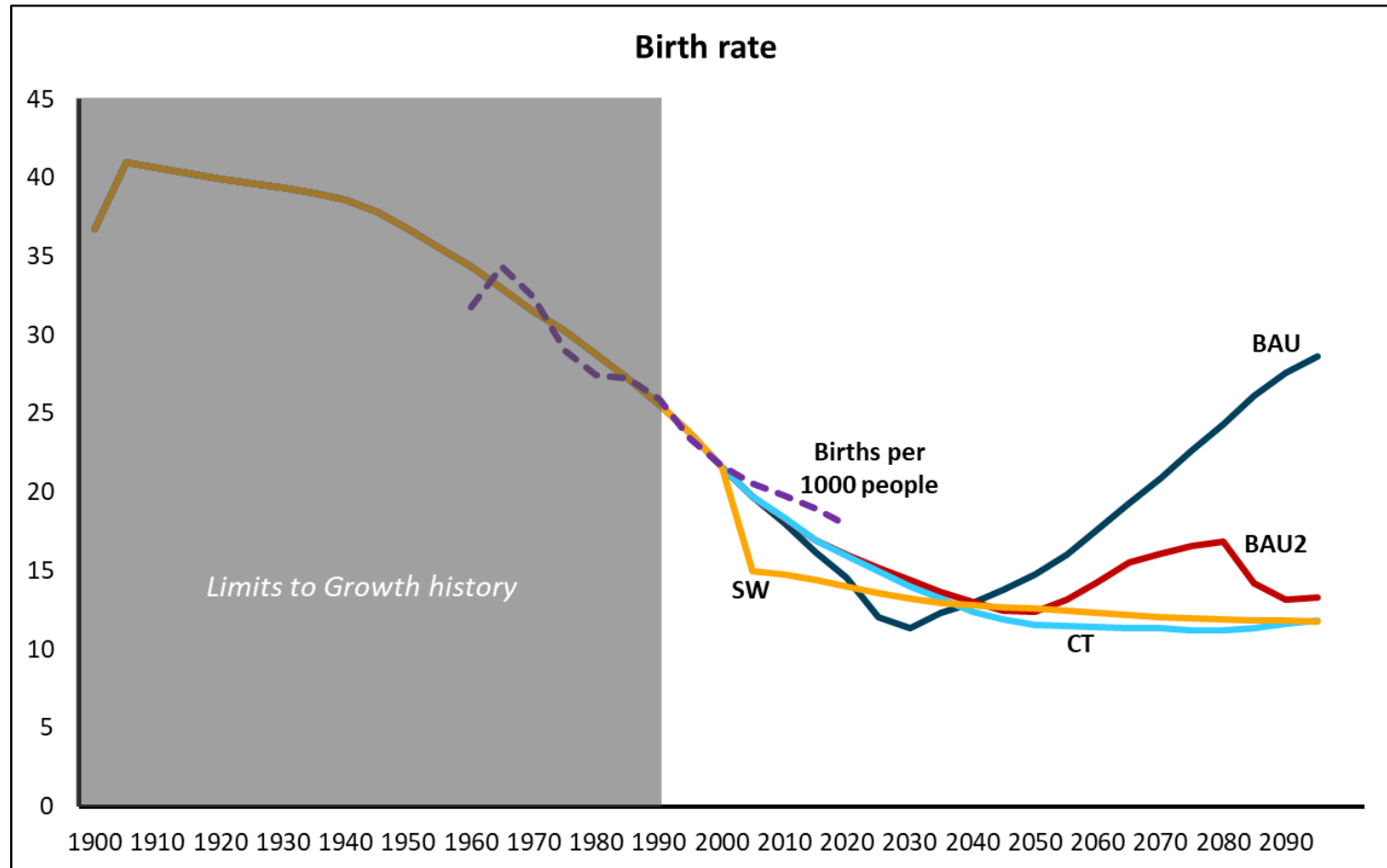


Interview

Yep, it's bleak, says expert who tested 1970s end-of-the-world prediction

Edward Helmore

My research findings



*Empirical data for birth rate (births per 1,000 people) and the variable for each scenario.
See journal article for all graphs, datasets and details on methodology.*

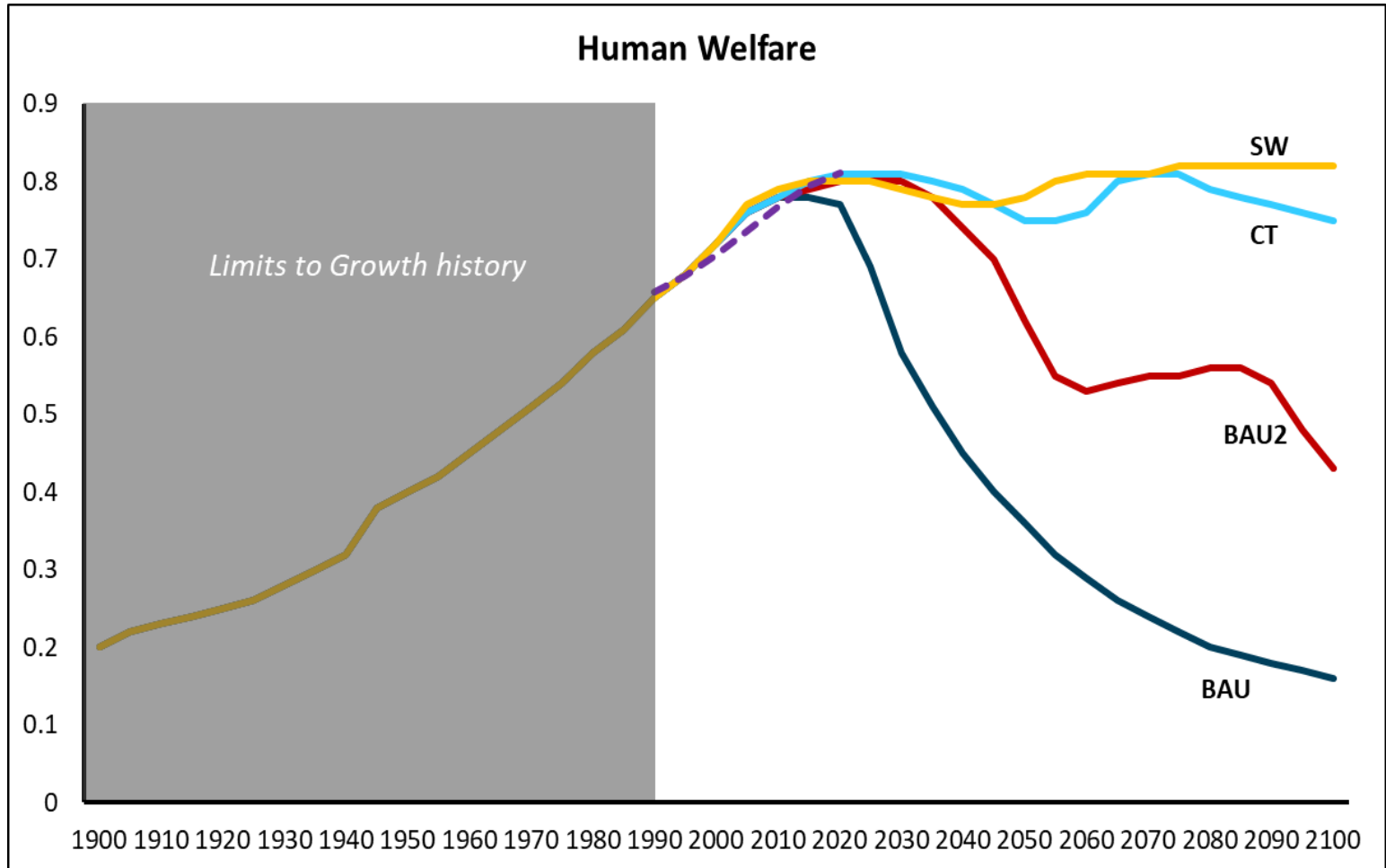
Data from a.o. UN entities, government agencies, and the World Bank, were compared against the output from the LtG model.

Observed data shows relatively close alignment with the scenarios decades into the future, especially two of them: BAU2 and CT.

The scenarios have not diverged much yet. This means it is not too late to align with SW and maintain our welfare levels of today.

My conclusions

- Growth is not a good goal. It will halt one way or another, either by our conscious choice or otherwise possibly through ecosystem breakdown.
- Humanity has a “now or never” opportunity to deliberately and significantly change course.
- For this, it *has to* redefine its core values and paradigms. The goal of the economy must change from growth to human and ecological well-being.



Empirical data (UN Human Development Index) plotted against human welfare variables for all four scenarios. See journal article for all graphs, datasets and details on methodology.

Change the Goal, Change How We Relate To Nature

In other words: reimagine our relationship with nature, or perhaps, find it again.

Revaluing Natural Capital can and should be a part of that. But the entire societal and economic system must change.

Will it?

- The majority of people in advanced economies want deep reforms in their political and economic systems.
- Three in four people in G20 countries are aware that Earth is approaching tipping points and support deep systemic changes towards prioritizing health, well-being, and the planet.



Let's talk about fear



Fear of social unrest

Fear of being left out

Thank You

- LinkedIn, <https://www.linkedin.com/in/gayausa/>
- Book, *Five Insights for Avoiding Collapse*:
<https://www.mdpi.com/books/mono/6206>
- Article in Yale's *Journal of Industrial Ecology*,
<https://onlinelibrary.wiley.com/doi/abs/10.1111/jiec.13084>

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The background features a stylized illustration of two hands, one in a reddish-orange hue on the left and one in a greenish-blue hue on the right, reaching towards each other. A glowing, wavy line of light connects the two hands. The background is a gradient of warm colors, transitioning from orange to green, with faint, abstract patterns of lines and dots.