

Surviving the 21st Century

A MAHB Dialogue with Science Journalist and Author Julian Cribb

Geoffrey Holland



Sharing our world

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Geoffrey Holland: Your book, *Surviving the 21st Century*, AKA SC21, identifies ten global scale threats that could destroy life on Earth as we know it before the end of this century. Could you summarize these threats?

Julian Cribb: The ten intersecting risks are: ecological collapse, resource depletion, weapons of mass destruction, climate change, global poisoning, food insecurity, population and urban expansion, pandemic disease, and uncontrollable new technologies. They are assisted by a prodigious capacity for human self-delusion. More [here](#).

GH: Why is human population growth a key driver of these burgeoning existential threats?

JC: The human population has tripled in my lifetime, from a level that was sustainable in the mid-C20th, to one that clearly isn’t, especially at our present levels of material consumption. We now consume, use and waste 40 times more ‘stuff’ than our grandparents.

The worst offenders are rich societies whose per capita consumption is 10x or more that of poorer places. While we need to bring the human populations back to a sustainable level, it is even more urgent that we reduce our consumption to levels within the ability of the Earth to sustain.

GH: Climate change caused by humans is heating the atmosphere, melting the icecaps, and causing dangerous weather extremes. Perhaps the most frightening possibility is a runaway greenhouse warming caused by the unleashing of methane hydrates frozen in land permafrosts and in sediments at the bottom of our oceans. Can you talk about this phenomenon called a 'Clathrate Gun' and how it could make our Earth uninhabitable?

JC: Though the science is not yet in, there appear to be 3-5 trillion tonnes of methane locked in tundra, tropical swamps and ocean hydrates. Methane is 28x more potent as a climate driver than CO₂. Once these carbon sources vent – and there are signs they already starting – it is impossible for humanity to stop them. We will be on a one-way street to a 'hothouse Earth', uninhabitable by humans or larger animals. This underlines the urgency of ending all anthropogenic carbon emissions before 2030, if we are to have a chance of stabilizing the climate below the methane threshold. Read more on [my blog](#).

GH: When you talk about food insecurity, what are the factors that are driving it, and what are the solutions?

JC: Food insecurity is caused by the destruction, pollution and wastage of soils, water, nutrients, biota and the agricultural ecosystem. [Every meal you eat](#) now devours 10 kilos of topsoil, 800 litres of water, 1.3 litres of oil, uses 0.3g of pesticide and releases 3.5 litres of CO₂. An unsustainable global agribusiness system, motivated by profit not food or nutrition, has turned farming into mining over vast tracts of the Earth. It is the primary cause of the 6th Extinction. We need to totally reinvent the global food system, basing it on three main elements: regenerative agriculture, urban food production using recycled nutrients and water, and ocean aquaculture of both plants and fish. My forthcoming book, *Food or War*, describes this system and how to fund it.

GH: What should people know about the increasing threat caused by our unbridled pursuit of ever more advanced, potentially lethal technologies?

JC: Most powerful technologies are in very few hands, with little or no public scrutiny, either in democracies or autocracies. Key threats include killer robots (especially those armed with WMD), global mass surveillance and control of individuals, uncontrolled use of AI, potent new

biotechnologies (including experiments on the human genome) and global mass chemical pollution which is four or five times larger than our climate emissions. These can only be checked by the people demanding oversight.

Examples: <https://juliancribb.blog/2018/02/01/the-end-of-freedom/> and <https://juliancribb.blog/2017/02/06/earth-is-now-a-toxic-planet/>

GH: Your book identifies four primary human belief systems – money, politics, religion, and the human narrative. Do our beliefs need to change to give us the best chance of building a future that is both life-affirming and sustainable? If so, how?

JC: There is no scientific evidence to support any of these belief systems, yet a majority of humans subscribe to one or more of them. When we prize unevidenced belief over the real world, we are liable to create a disaster – for example, in using an infinite supply of imaginary ‘money’ to destroy a real but finite planet. Pope Francis illustrates the answer in *Laudato Si*: we need to redirect religion, politics and money to human survival and caring for our planet. One example is [here](#).

GH: Why are women so essential to the task of shaping a future that is worthy of the human species?

JC: Put simply, women don’t start wars. They don’t pillage the biosphere without regard to the future. They don’t release nearly so much carbon as men. They tend to consider the future, their children and grandchildren. Men like simple solutions using technology, chemistry or weaponry – and to hell with the consequences. So, women should be in charge of everything. This has nothing to do with feminism or equal opportunity. It is now a foundational rule for human survival on a hot, overcrowded, resource-depleted planet.

For more: <https://juliancribb.blog/2016/10/12/women-must-lead-if-humanity-is-to-survive/>

GH: How important is it for women and men of all races, creeds, and nationalities to embrace our common planetary citizenship to address the looming global scale issues that threaten our survival? What’s the first step in doing this?

JC: The first step towards human survival is for us to learn to ‘think as a species’, instead of a squabbling bunch of greedy, selfish, competing individuals. For the first time in human history, the internet and social media enables us to exchange information, ideas, solutions, views and values around an entire Planet, at lightspeed. It is the first, tentative, step in our learning to think together and to solve our problems at supra-human level, by consensus instead of argument or war. The renewable energy revolution is an example of this global thought process

in action – but we need similar endeavors in all ten of the existential threats, to change human behaviour from destructive to regenerative.

More at: <https://juliancribb.blog/2017/03/27/learning-to-think-as-a-species/>

GH: If we humans truly have come to a civilization scale crossroads, can we afford to take our time in reinventing our approach to life?

JC: As the Doomsday Clock advises us, we are two minutes to midnight. There is little or no time left. The real question is how many people do we lose once the cycle of catastrophe begins? Half the population? 90%? All of it? This is presently unknowable, as we cannot predict global human behaviour – but a key factor is the number of nuclear wars that result from the climate famines, water crises, mass refugee movements (in the 100s of millions to billions) economic crises, conflicts and pandemics that result. More [here](#).

GH: What advice would you give to people who want to be part of the solution to the existential crisis before us?

JC: All ten of the existential threats are capable of being eased or solved by concerted human action and worldwide behavioural change by individuals. But they must be solved together, simultaneously – partial ‘solutions’ only make other threats worse. The sooner we start to solve the combined existential emergency, the fewer lives it will cost and the sooner we can return the Earth to a balanced, sustainable condition.

In ‘*Surviving the 21st Century*’ I not only outlined the global solutions to these ten mega threats, but also what individuals can do in their own lives to secure a viable future for themselves, their Planet and their grandchildren. We cannot afford to wait for governments - who are mostly the puppets of the corporate sector - to wake up. We must all act now. More:

<https://juliancribb.blog/2019/03/11/the-rise-of-woman/>

Julian Cribb FRSA FTSE is an Australian author and science communicator. A former newspaper editor, his published work includes over 9000 articles, 3000 science media releases and eleven books, the latest four on the existential emergency facing humanity and potential solutions to it. He has received over 30 awards for journalism. Julian Cribb’s latest book is Food or War, which ties the existential threats faced by humanity to the food choices each of us makes every day. It will be released this summer by Cambridge University Press.

The MAHB Dialogues are a monthly Q&A blog series focused on the need to embrace our common planetary citizenship. Each of these Q&As will feature a distinguished author, scientist, or leader offering perspective on how to take care of the only planetary home we have.

Geoffrey Holland is a Portland, Oregon based writer/producer, and principal author of [The Hydrogen Age](#), Gibbs-Smith Publishing, 2007

The [MAHB Blog](#) is a venture of the Millennium Alliance for Humanity and the Biosphere. Questions should be directed to joan@mahbonline.org