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COVID-19

A COUNTER-PANDEMIC STRATEGY

BY

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COVID-19: A Counter-Pandemic Strategy for India

Originally written on 1st April, 2020. Adopted in 2026 for a broader audience.

Forecasting a Social Crisis in Real Time — Written in March 2020, Before the World Knew How the Pandemic Would Unfold

Sanjay P Vishwasrao, Major General, Retired

Written in March 2020 as Brigadier, published by the Centre for Joint Warfare Studies (CENJOWS) on 1 April 2020, and by the National Defence College during the author's 60th NDC Course.

A FORECAST, NOT HINDSIGHT

This strategy was written in March 2020 and published on 1 April 2020 — when India had recorded barely 1,600 cases and 35 deaths, no vaccine existed anywhere in the world, and most global commentary was still focused on containment measured in weeks, not structural social advantage measured in years. Drawing on India's own Aadhaar-linked digital footprint, its Make in India pharmaceutical base, and patterns from India's earlier fights against HIV and polio, this paper predicted — in the pandemic's first month — that India possessed the structural ingredients to emerge from COVID-19 comparatively stronger, not merely to survive it. The press coverage below is dated 1 April 2020, fixing this forecast in time before the outcome was known.

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Contain COVID-19 With 'Indigenous Strategy': Army Think Tank

The Centre for Joint Warfare Studies has released a paper on the control of the spread of the coronavirus in India.

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As India reports over 1,600 COVID-19 cases and over 35 deaths, the Indian Army has started 'quarantine wellness facilities' at several locations, and also begun immediate measures to research and present a strategy to counter the coronavirus pandemic.

The Centre for Joint Warfare Studies (CENJOWS), under the Chief of Defence Staff (CDS), has released a 'A Counter Pandemic Strategy' by Brigadier Sanjay Vishwasrao, who was India's defence and military attaché in Pakistan from 2017 to 2019.

The 19-page research paper concludes that India can successfully control the curve of the pandemic using an indigenous strategy which creates an environment that's unfriendly for the coronavirus.

The Quint, 1 April 2020: 'Contain COVID-19 With 'Indigenous Strategy': Army Think Tank' — reporting on the CENJOWS paper the day after publication.

Abstract

The key to defeating a pandemic is a good strategy, just as it is in war. India's own experience countering its HIV epidemic holds real lessons for combating COVID-19. An indigenous Indian counter-pandemic strategy should work to deny or delay the negative tipping point — a rising daily count of newly infected people — while expanding the positive tipping point: a rising daily, weekly and monthly count of people isolated, treated and recovered. It should also isolate India from foreign carriers, with particular focus on affluent carriers with a foreign travel history, their families and staff, and the health workers and enforcement personnel most exposed to them, to prevent spread into more vulnerable populations.

Introduction

An epidemic is a sudden, localised rise in the number of people affected by a disease or virus; a pandemic is declared once that spread, crosses continents. Both occur through some combination of a new virus or viral strain, social conditions that favour transmission, and social conditions that raise a society's susceptibility to it. Unlike in earlier pandemics, information technology now plays a major role in the response: the analytics firm GlobalData has reported that artificial intelligence and machine learning, diagnostic equipment and software, administrative data-processing tools, GPS-enabled mobile tracking of patients, and chatbots and social media for public advisories are all now at the front line of the fight against COVID-19 — including in building a social environment receptive to lockdown and self-isolation.[1]

[1]'Emerging Technologies Proving Value in Chinese Coronavirus Fight,' Imaging Technology News, 28 February 2020. Accessed online at https://www.itnonline.com/article/emerging-technologies-proving-value-chinese-coronavirus-fight

Lessons from India's Fight Against HIV and Polio

India largely escaped the HIV epidemic because its society did not normalise sexual promiscuity or homosexuality, and because international travel to and from India remained low in volume until the late 2000s. The real story of HIV in India is not the 2.14 million people infected, but the low 0.22% adult prevalence rate that figure represents — ranking India 81st globally, below both the relevant threshold and the prevalence rates of the United States and France.[2] This holds a real lesson for COVID-19: India's own culture (namaste, the joint family), its patriotism and desire for strategic autonomy, its 'No Terror & Talks' strategy toward a polio-endemic Pakistan, and social programmes such as Swachh Bharat, International Day of Yoga, the Digital India Programme and Make in India will all help contain COVID-19's impact — and are worth strengthening for the pandemics still to come.

India's counter-polio strategy succeeded well enough that the WHO declared India polio-free in 2014, its last reported case dating to 2011.[3] Compare that with the failure of India's western neighbour and terror sponsor, the Islamic Republic of Pakistan, which recorded 147 polio cases in 2019[4] and 57 more by June 2020.[5] That contrast holds a lesson for India, its neighbours and the wider world alike.

Lessons from Malcolm Gladwell's 'The Tipping Point'

A chapter of Malcolm Gladwell's 'The Tipping Point' (2002) examines how epidemics spread. He defines a tipping point as the moment at which a series of small changes becomes significant enough to produce a larger, more consequential shift — in epidemic terms, the point at which the number of

[2]'List of countries by HIV/AIDS adult prevalence rate,' Wikipedia. Accessed online at https://en.wikipedia.org/wiki/List_of_countries_by_HIV/AIDS_adult_prevalence_rate
[3]'How India Eradicated Polio,' Polio Global Eradication Initiative, 19 November 2018. Accessed online at http://polioeradication.org/news-post/how-india-eradicated-polio-challenges-and-lessons-learned/
[4]'Polio this week in Pakistan,' Polio Global Eradication Initiative. Available online at http://polioeradication.org/where-we-work/pakistan/
[5]'Polio Cases in Provinces,' Pakistan Polio Eradication Programme. Accessed online at https://www.endpolio.com.pk/polioin-pakistan/polio-cases-in-provinces

newly infected people falls to, or below, the number already under treatment.[6] Gladwell observes that roughly 20% of people drive 80% of the spread of a virus or a message, even within a single organisation, and that the character and strength of that 20% — whether carriers or messengers — determines how virulent the disease or the message becomes. His final point is that viruses and messages alike only spread where the surrounding environment is conducive to them, as with Ebola in war-torn parts of Africa, or polio in Pakistan.

CORPORATE PARALLEL — READING A TIPPING POINT BEFORE IT TIPS

Gladwell's 20% rule is exactly the logic behind reading market adoption, brand risk or a viral crisis before it fully develops: identify the small, disproportionately influential group actually driving the spread — of a product, a rumour, or a failure — and both the environment that is letting it spread and the point at which the trend reverses. A strategy team that can name its own '20% carriers' is already most of the way to a working early-warning system.

Lessons from India's HIV/AIDS Project Avahan

Project Avahan, launched in 2003, became the world's largest HIV-prevention programme. Six lessons from its design deserve serious reflection in building any Indian COVID-19 strategy.[7] First, a genuinely Indian plan, built for India's own epidemic patterns, was the key to its success. Second, it took a business-like approach — blending project managers, health experts and NGOs to implement a strategy designed at scale from the outset, rather than one scaled up from a small pilot. Third, its early focus was on prevention, not cure. Fourth, prevention concentrated on the highest-risk

[6]Angelo Kaggwa-Katumba, 'New Px Wire: AIDS vaccine news and "tipping point" infographic,' Global Health Delivery Project at Harvard, 3 October 2013. Accessed online at https://www.ghdonline.org/hiv/discussion/new-px-wire-aids-vaccine-news-and-tipping-point-in/

[7]Marie Laga & Bea Vuylsteke, 'Evaluating AVAHAN's design, implementation and impact: lessons learned for the HIV Prevention Community,' Springer.com, 29 December 2011. Accessed online at https://link.springer.com/article/10.1186/1471-2458-11-S6-S16

groups: female sex workers and their clients, homosexual men, transgender people, and injecting drug users in the north-eastern states. Fifth, building an enabling environment — preventing police harassment, providing bathing points for truck drivers, and similar measures — made the target population far more willing to change behaviour. Finally, encouraging communities to organise themselves, working through NGOs, built genuine buy-in and mobilisation rather than compliance imposed from outside.

At the tactical level, three further takeaways from Avahan stand out: peer-led outreach and behaviour-change communication proved highly effective at spreading its message; wide availability of testing, care, condoms and safe injecting equipment directly slowed transmission; and regular monitoring and evaluation at every level kept its interventions properly targeted.

Lessons from the Pandemic's Early Months

The strategic lessons from COVID-19's first months (medical and economic detail aside) begin with speed: transmission in a globally connected world moves fast, because pathogens do not respect political borders. Strategic autonomy and an inward-looking sense of nationalism, by contrast, reduce that exposure — a pattern Italy's own experience validates, given how much strategic autonomy it had already ceded before the pandemic struck. Two reports in The Diplomat capture this well.

> *China has plans for Italy: it is interested in Italy's ports and infrastructure in connection with the Belt and Road Initiative. (20 March 2020)*[8]
>
> *A recent report of the Italian parliamentary committee for security (Copasir) has certified the existence of a massive 'infodemic' during the COVID-19 crisis, and more specifically the role of Russian and Chinese propaganda in the country. Italy has been one of the main targets of*

[8]Theresa Fallon, 'China, Italy, and Coronavirus: Geopolitics and Propaganda,' *The Diplomat*, 20 March 2020. Accessed online at https://thediplomat.com/2020/03/china-italy-and-coronavirus-geopolitics-and-propaganda/

Beijing, with specifically tailored messages meant for Italian audiences. (9 June 2020)[9]

In a globalised world, large religious congregations proved to be the new fountainheads of epidemic spread: Chinese New Year gatherings on 25 January 2020,[10] Qom in Iran,[11] and the Tablighi Jamaat congregation across India, Pakistan and Malaysia.[12][13] A compounding factor throughout has been governments' and societies' inaction on animal-to-human viral transfer[14] — the 'One Health' concept.[15] There is good evidence that China's delay in informing the WHO,[16] and the WHO's own delay in declaring a pandemic until 30 January 2020, allowed the virus to spread well beyond China first.[17] Likewise, a week's delay (2–9 January 2020) in China sharing the virus's genetic sequence slowed global collaboration on both isolating it and developing countermeasures.[18] Since the world cannot be un-flattened or de-coupled,[19] transport entry and exit points need to be strengthened with

[9]Valbona Zeneli and Federica Santoro, 'China's disinformation campaign in Italy,' *The Diplomat*, 9 June 2020. Accessed online at https://thediplomat.com/2020/06/chinas-disinformation-campaign-in-italy/

[10]Robert Stacy McCain, 'Coronavirus: The Price of Luxury,' *The American Spectator*, 20 March 2020. Accessed online at https://spectator.org/coronavirus-the-price-of-luxury/

[11]David D. Kirkpatrick, Farnaz Fassihi and Mujib Mashal, '"Recipe for a Massive Viral Outbreak": Iran Emerges as a Worldwide Threat,' *New York Times*, 24 February 2020. Accessed online at https://www.nytimes.com/2020/02/24/world/middleeast/coronavirus-iran.html

[12]The Print Team, 'Tablighi Jamaat congregation and how religion has been the 'super spreader' of coronavirus,' The Print, 1 April 2020. Accessed online at https://theprint.in/opinion/tablighi-jamaat-congregation-and-how-religion-has-been-the-super-spreader-of-coronavirus/392531/

[13]'Pakistan, Malaysia fret over Jamaat coronavirus trouble; 20,000 quarantined,' The Week, 6 April 2020. Accessed online at https://www.theweek.in/news/world/2020/04/06/Pakistan-malaysia-fret-over-jamaat-coronavirus-trouble-20-quarantined.html

[14]Richard A. Kock, William B. Karesh, Francisco Veas, Thirumalaisamy P. Velavan, David Simons, Leonard E.G. Mboera, Osman Dar, Liã Bárbara Arruda and Alimuddin Zumla, '2019-nCoV in context: lessons learned?,' *The Lancet Planetary Health*, 1 March 2020. Accessed online at https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30035-8/fulltext

[15]'One Health Basics,' Centers for Disease Control and Prevention, 5 November 2018. Accessed online at https://www.cdc.gov/onehealth/basics/index.html

[16]Julia Belluz, 'China hid the severity of its coronavirus outbreak and muzzled whistleblowers — because it can,' Vox.com, 10 February 2020. Accessed online at https://www.vox.com/2020/2/10/21124881/coronavirus-outbreak-china-li-wenliang-world-health-organization

[17]'Coronavirus: All you need to know in under 500 words,' Al Jazeera, 9 July 2020. Accessed online at https://www.aljazeera.com/news/2020/01/china-coronavirus-500-words-200127065154334.html

[18]Bethany Allen-Ebrahimian, 'Timeline: The early days of China's coronavirus outbreak and cover-up,' Axios, 18 March 2020. Accessed online at https://www.axios.com/timeline-the-early-days-of-chinas-coronavirus-outbreak-and-cover-up-ee65211a-afb6-4641-97b8-353718a5faab.html

[19]Nayanima Basu, 'Coronavirus spread shows world is still globalised: Former NSA & top diplomat Menon,' The Print, 3 March 2020. Accessed online at https://theprint.in/world/coronavirus-spread-shows-world-is-still-globalised-former-nsa-top-diplomat-menon/374910/

medical screening — a pragmatic, protective form of globalisation, not unlike the one that followed 9/11.[20] Global cooperation to forecast and defend against the next epidemic or disaster needs to improve in step.

The key tactical lesson on flattening the curve is that, unlike HIV, COVID-19 spread faster in India's more prosperous states and union territories, and in those with greater economic, religious or tourist connectivity to the rest of the world. As with HIV, this points to the need for a genuinely indigenous counter-pandemic strategy, blending individual, social, governmental, business and NGO tools with early, preventive action. Since COVID-19 spreads through ordinary human mingling,[21] the practical measures that follow are: restricting international and local travel, and mass gatherings and congregations; encouraging enhanced personal and environmental hygiene, the use of namaste in place of physical greetings, social distancing, self-isolation and quarantine; and protecting the elderly, the sick, and helping the needy survive a lockdown. All of this sits naturally within India's own civilisational culture, and has already been partly institutionalised through Swachh Bharat, the International Day of Yoga and the Digital India Programme. Any Indian strategy also has to reckon honestly with the 'chalta hai' (couldn't-care-less) attitude that risks leaking through self-isolation, quarantine and enforcement alike — a real risk in a country as densely populated as India.

A Recommended Counter-Pandemic Strategy

A strategy capable of both containing and eventually overcoming the pandemic needs three pillars. First, make the social environment unfriendly

[20]John Allen, Nicholas Burns, Laurie Garrett, Richard N. Haass, G. John Ikenberry, Kishore Mahbubani, Shivshankar Menon, Robin Niblett, Joseph S. Nye Jr., Shannon K. O'Neil, Kori Schake and Stephen M. Walt, 'How the World Will Look After the Coronavirus Pandemic,' *Foreign Policy*, 20 March 2020. Accessed online at https://foreignpolicy.com/2020/03/20/world-order-after-coroanvirus-pandemic/

[21]Lisa M. Krieger, 'Coronavirus: Infected people without symptoms are driving epidemic's fast spread, says new study,' The Mercury News, 16 March 2020. Accessed online at https://www.mercurynews.com/2020/03/16/coronavirus-infected-people-without-symptoms-are-driving-epidemics-fast-spread-says-new-study/

to COVID-19's transmission while making it friendly to early detection, isolation, tracking and treatment — through small, repeated, progressive changes such as work- and study-from-home, strict community policing, and direct benefit transfer. Second, identify and isolate the '20% carriers' early and treat them promptly, while empowering the '20% warriors' — health workers, police and armed forces in aid to civil authority — with the personal protection they need to do so safely. Third, use the right messages, messengers and media, repeated in catchy, memorable ways, so people voluntarily change behaviour, belief and outlook, and hold a positive attitude through lockdown and quarantine.

Stage 1 should focus on preventing spread from overseas travellers and foreign nationals — using the Digital India Programme to identify, track and monitor cases and their contacts, treating this group much as sex workers and truck drivers were treated in the HIV epidemic: returning Indians should be placed in mandatory isolation and tracked thereafter, with social reporting of defaulters actively encouraged.

Stage 2 should simultaneously work to prevent or delay community spread, especially into poor, congested, unhygienic urban localities — denying or delaying infection there is the key to overall success, and any area that does report infection needs special focus to prevent it becoming a super-spreader site.

Both tipping points — the negative and the positive — have to be attacked at once, aiming for the epidemiologist's 'gold ring' of 70–80% herd immunity (through a mix of natural immunity and an eventual vaccine) with as little social turbulence as possible.[22] Given India's population size and uneven hygiene and sanitation, this matters more here than almost anywhere else.

[22]Steven Levy, 'The Doctor Who Helped Defeat Smallpox Explains What's Coming,' Wired.com, 19 March 2020. Accessed online at https://www.wired.com/story/coronavirus-interview-larry-brilliant-smallpox-epidemiologist/

Delaying the negative tipping point calls for five things: a strategy designed at scale from the start, synergising Central and State governments (health being a state subject), enforcement agencies, businesses, NGOs and individual participation — on the rule that it is better to be wrong and fast than correct and late; actively countering social and religious practices that favour transmission (large festivals, mass prayers) while encouraging those that don't (namaste, the joint family, donation, social service); imposing curfews or periodic lockdowns to prevent spread between localities, cities, villages and states; building the economic and social conditions that let lockdown and physical distancing actually hold, using the Digital India Programme, the International Day of Yoga, the Jan Dhan–Aadhaar–Mobile (JAM) trinity, direct benefit transfer, ePathshala and SWAYAM, while resolving early the real bottlenecks — unpaid daily-wage workers forced to migrate home, slow broadband, and no computer or smartphone for study or work from home; and finally, recognising that dense urban population hubs are the hardest link in the chain, given the sheer difficulty of physical distancing and isolation there, compounded by poverty, illiteracy and ignorance — this is likely the weakest link in the entire counter-pandemic chain, and may call for identifying '20% carrier' occupations for compulsory testing.

Hastening the positive tipping point — raising the number of people protected or treated faster than the number newly infected — is the harder half of the task. It calls for: clean, welcoming quarantine facilities in every city and district headquarters, free or paid according to means, to encourage self-admission; medical testing built on Make in India kits, supported by subsidies or tax relief delivered through direct benefit transfer and Ayushman Bharat (PMJAY) via the JAM trinity; cheap, easy access to protective equipment for every category of citizen, carrier and warrior alike, with government, business, and NGOs helping supply and distribute it, aided by

GPS tracking through a Digital India Programme app; an economic support package for businesses, NGOs and individuals to make social distancing, self-isolation and curfew financially survivable; and encouraging those who can afford it to support daily-wage workers and the poor directly, in cash, rations, protective gear and medical care.

The road to recovery will be difficult given India's population size and density. Government should back Digital India Programme tools (the National Knowledge Network, MeghRaj Cloud) and Make-in-India anti-viral solutions to keep vaccines and related equipment cheap and available, while encouraging distinctly Indian complementary approaches — yoga, Ayurveda — and gradually shifting the underlying *'chalta hai'* culture. Enforcing traffic, curfew and municipal hygiene discipline consistently will, over time, help build tax discipline and a broader sense of patriotic, national unity as well. Social distancing, isolation, contact tracing, Make in India manufacturing, and improved traffic, hygiene, curfew and tax discipline are all heavily dependent on information technology, which will put real pressure on all nine pillars of the Digital India Programme — the Ministry of Electronics and Information Technology will need to respond quickly and flexibly to support the Ministry of Health and Family Welfare in collecting and using data — from apps, travel records and health histories — to keep refining both the counter-pandemic strategy and vaccine development.

RELEVANCE FOR GOVERNMENT POLICY INSTITUTIONS — DESIGNING A POPULATION-SCALE STRATEGY

The three-pillar structure above — reshape the environment, target the disproportionate spreaders, and win voluntary behaviour change through the right messengers — is a general-purpose template for any population-scale policy problem, not only a pandemic: tax compliance, road safety, vaccination drives, financial-inclusion campaigns. Staging the rollout explicitly (Stage 1 on the most visible, controllable segment; Stage 2 on the harder, systemic one) is what turns a strategy paper into something a government can actually execute and sequence.

Long-Term Strategic Issues

India cannot make itself pandemic-proof. But maintaining strategic autonomy in key sectors — a lesson also of the 1997 Asian Financial Crisis — has been reinforced by both the COVID-19 pandemic and the standoff on the Line of Actual Control. On Pakistan: with a sixth of India's population (213 million) and half its population density (287 versus 455 per square kilometre), Pakistan had recorded 780 COVID-19 cases against India's 396 as of 22 March 2020[23] (figures that had grown, by 1–2 July 2020, to 213,470 cases and 4,395 deaths in Pakistan[24] against 585,000 cases and 17,400 deaths in India[25]). Until Pakistan changes its communal, anti-India posture and improves its own social indicators, it remains prudent to keep India insulated from its particular strain of 'virulence' — a light in which the Government of India's 24 June 2020 order to halve the strength of Pakistan's High Commission in New Delhi (with a reciprocal cut in India's own Islamabad

[23]Atta Ur Rehman Khan, 'COVID19: Pakistan's Corona Meter – Coronavirus Live Update,' Bol News, 9 June 2020. Accessed online at https://www.bolnews.com/latest/2020/03/covid19-pakistans-corona-meter-coronavirus-live-update/
[24]'Pakistan: COVID-19 Situation Report as of 1 July 2020,' United Nations Office for the Coordination of Humanitarian Affairs, Pakistan, 1 July 2020. Accessed online at https://reliefweb.int/sites/reliefweb.int/files/resources/pakistan_situation_report_20200701.pdf
[25]'Coronavirus Updates July 1: India's tally of confirmed cases exceeds 6 lakh, highest single-day spike in deaths recorded,' India Today, 2 July 2020. Accessed online at https://www.indiatoday.in/india/story/coronavirus-news-live-updates-unlock-2-guidelines-pm-modi-speech-covid-cases-in-india-1695709-2020-07-01

mission) can also be read. Internationally, India could usefully lead on promoting the 'One Health' concept and on discouraging the food-slaughter of wild animals, and should help build international consensus for real-time collaboration to forecast the next new virus or pandemic and to develop a strategy and vaccine for it in advance.

Domestically, government should evaluate what Swachh Bharat, Ayurveda, the International Day of Yoga, the Digital India Programme and Make in India have each actually contributed, and strengthen them where it matters. Physical distancing and curfew measurably reduced air pollution[26] (though air quality itself did not improve as dramatically[27]) and appear to have improved social cohesion. The new norms of work- and study-from-home, and wider use of the Digital India Programme, are worth monitoring and evaluating in their own right, as potentially durable, environmentally friendly and nationally unifying social and business norms.

The politicisation of illiteracy, ignorance and dogma may well have weakened India's preparedness and response to COVID-19, which depends on genuine social cohesion to work. Any contradictions between political or religious belief and India's own national security are worth resolving sooner rather than later.

Conclusion

The COVID-19 pandemic has shown how the ongoing contest between nature and humanity can produce entirely unforeseen consequences and hardship. It has also shown just how interconnected the world now is — like a single spaceship — even as each nation's own culture, demographics,

[26]Nadja Popovich, 'Watch the Footprint of Coronavirus Spread Across Countries,' *New York Times*, 17 March 2020. Accessed online at https://www.nytimes.com/interactive/2020/climate/coronavirus-pollution.html
[27]'Pusa, Delhi Air Pollution: Real-time Air Quality Index (AQI),' Aqicn.org. Accessed online at https://aqicn.org/city/delhi/pusa/m/

politics and economics keep making it, and its relationships with others, genuinely distinct.

If India ends up standing out for a comparatively low-to-moderate pandemic impact, the reasons will likely trace back to a pre-pandemic foundation already in place: a distinct culture and tradition, a spirit of patriotism and nationalism, a real desire for strategic autonomy, and the groundwork laid by Swachh Bharat, the International Day of Yoga, the Digital India Programme and Make in India. On balance, this pandemic may prove to be less a crisis for Indian society than an opportunity for it.

RELEVANCE FOR CORPORATE, GOVERNMENT AND THINK-TANK AUDIENCES

This paper is offered less as a COVID-era artefact than as a demonstrated method: reading early, incomplete signals (a country's digital infrastructure, its manufacturing base, its own epidemiological history) into a structured risk forecast; designing a staged strategy for a population-scale problem before the crisis fully matures; and visualising, concretely, how that strategy should unfold in sequence. Published in the pandemic's first month and confirmed in the press the very next day, it stands as a working example of forecasting, risk analysis and large-scale strategy design under genuine uncertainty — the same discipline this author now brings to advisory work for corporates, government policy institutions and think tanks facing their own unfolding, large-scale risks.