

## REFLECTION; WE ARE AHEAD OF SCHEDULE

*'Not about what is to come but what is already happening'. 'The catastrophe is that it continue to go on'.*

*March 2024, Arie Voorburg*

*Humanity is not dealing with only a single-incident, non-interconnected local or regional crisis. Humanity is heading into a deteriorating and undeclared globalized emergency involving the collapse of its critical global survival and stability systems (such as the trespassing geobiophysical boundaries of the Earth System , the economy, and our political and social systems.)*

### SHORT VERSION

The Club of Rome commissioned the report **The Limits to Growth** in 1972 that shifted how we see what humans are doing to the planet. Looking back five decades later, what did we do and not do, what did we learn -if we did-, and what happens now?

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The world is in the midst of a multicrisis and facing existential risks: ecological deterioration and trespassing geo-biophysical planetary boundaries, increasingly social inequality, unequal distribution of health, income and wealth in a continuously globalizing world, as well as financial upheavals and recurring economic recessions. A unique and extraordinary set of economic conditions is steering the globe toward a crisis worse than any of the stock market crashes or energy shocks of the past 70 years. Signs of ecological crisis include climate change, the disappearance of wild nature, relentless resource depletion, the increasing chemical pollution of air and water, soil loss and degradation, and fresh water scarcity. Evidence of social crisis includes increasing economic inequality, poverty, racism and other forms of discrimination, the rise of authoritarianism, and impacts of rapid technological change and disruption.

Due to the growth of world population, continued high levels of consumption in the developed world and the rapid industrialization of emerging economies, worldwide demand for natural resources such as raw materials, rare earth elements, energy, water and land is steadily increasing.

We are now witnessing the cumulative effects of globalization without forward-looking governance. This includes a slew of new, growing risks that are particularly difficult to manage, including those which are existential and systemic in nature. These interacting crises produce harms greater than

the sum of those the crises would produce in isolation, were their host systems not so deeply interconnected. Our current set of crises can be described as a multicrisis because self-reinforcing feedbacks between ecological breakdown and social breakdown are strengthening and growing more numerous.

#### THE LONG VERSION

The world is in the midst of a multi crisis and facing existential risks: ecological deterioration and trespassing geo-biophysical planetary boundaries, increasingly social inequality, unequal distribution of health, income and wealth in a continuously globalizing world, as well as financial upheavals and recurring economic recessions. Signs of environmental crisis include climate change, the disappearance of wild nature, relentless resource depletion, the increasing chemical pollution of air and water, soil loss and degradation, and fresh water scarcity. Evidence of social crisis includes increasing economic inequality, poverty, racism and other forms of discrimination, the rise of authoritarianism, and impacts of rapid technological change (such as automation).

The debate on governance goes hand in hand with a geopolitical race to lead technological innovation and, unlike the EU, in the case of the United States and China that also means development of its military application. There is a growing diversity of options and alliances. Thus far, hegemonic narratives are either challenged or no longer serve to make sense of the world. In this unbalanced multipolarity, with medium-sized powers setting regional agendas, the major traditional powers are compelled to seek their own space. Global competition for resources to fuel the green and digital transitions accentuates this variable geometry of agreements and alliances still further. The crisis of the liberal order, aggravated by the international reaction to the latest conflicts, and the erosion of multilateralism – with an explicit challenge to the United Nations – foster yet further this sensation of a dispersion of global power towards an assortment of dynamic medium-sized powers capable of helping to shape the international environment in the coming decades.

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We are in a multicrisis. The word ‘multicrisis’ describes the rare situation in which multiple crises hit society simultaneously. Our ecosystems are on the brink of collapse, our economic system is

stressed, and socio-political relations are under pressure, long-term crises simultaneously culminating into a moment of systemic risk, with each one complicating the solution of the others. The consequences of these crises can be assessed more thoroughly, looking through three different lenses: an ecological, an economic, and a social/political lens.

The consequences are increasing uncertainty, lack of progress on the sustainable development agenda and an unstable economy. Policymakers do not know where to start to fix this. And there is no easy fix because we cannot go back to our pre-multicrisis world. That world was fossil-fueled and geared towards efficiency and perpetual growth; it brought us into this position in the first place.

## CONTESTED WORLD

Today's world is consistently described by the dominance of national interests, a low degree of multinational combined efforts as well as a decoupling of the Global South. In a highly individualized world, people are losing trust in politics, administration and public media. At the global level, this is also weakening the role of nation states, so that various interest-driven actors – from companies and lobbyists to civil society groups and numerous regional and local entities – are stepping into this gap. Urban areas in particular are becoming actors in their own right on the world stage, so that overall one could speak of a shift toward market states. While the USA and China are able to secure their position in this process, Europe is torn apart between the various centers of power.

In coming years and decades, the world will face more intense and cascading global challenges ranging from conflicts to climate change to the disruptions from new technologies and financial crises. These challenges—which often lack a direct human agent or perpetrator—will produce widespread strains on states and societies as well as shocks that could be catastrophic. They will repeatedly test the resilience and adaptability of communities, states, and the international system, often exceeding the capacity of existing systems and models. This looming disequilibrium between existing and future challenges and the ability of institutions and systems to respond is likely to grow and produce greater contestation at every level.

Novel technologies will appear and diffuse faster and faster, disrupting jobs, industries, communities, the nature of power, and what it means to be human. The effects of climate change and environmental degradation are likely to exacerbate food and water insecurity for poor countries, increase migration, precipitate new health challenges, and contribute to biodiversity losses. Continued pressure for global migration will strain both origin and destination countries to manage the flow and effects. These challenges will intersect and cascade, including in ways that are difficult to anticipate. The development is exacerbated by the global consequences of ecological

tipping points, which in many countries of the global South further restrict the functioning of state institutions. The lack of global cooperation and overarching governance ultimately leads to a lack of reforms in the agricultural and food sector, and in some regions even jeopardize food supplies. Climate policies remain limited to individual regions, segments or corporate initiatives, which makes global success impossible from the start.

In this more contested world, communities are increasingly fractured as people seek security with like-minded groups based on established and newly prominent identities; states of all types and in all regions are struggling to meet the needs and expectations of more connected, more urban, and more empowered populations; and the international system is more competitive—shaped in part by challenges from a rising China—and at greater risk of conflict as states and nonstate actors exploit new sources of power and erode longstanding norms and institutions that have provided some stability in past decades. These dynamics are not fixed in perpetuity, however, and we envision a variety of plausible scenarios for the world of 2040—from a democratic renaissance to a transformation in global cooperation spurred by shared tragedy—depending on how these dynamics interact and human choices along the way.

The loosening of nation-state structures coupled with the weak position of global institutions is creating a patchwork of different actors and rules. Uniform value systems that provide orientation no longer exist. Instead, competing value systems rise all over the world. Authoritarian ideas are gaining a foothold in the West and, in parallel, Western ideas are attractive worldwide – even if China and other authoritarian states are trying to seal themselves off from this development. In this world without global leadership and cooperation, numerous conflicts occur, which also repeatedly trigger large migration flows.

Digital network monopolies act purely according to power and profit considerations. In doing so, they also rely on alternative private means of payment, thus forcing the public sector to lose control over the monetary system.

The digital elite acts largely independently of real developments in specific countries and regions. While Western nations are largely able to maintain their position, the growth of the global middle class in Asia is stagnating and the global South is falling further behind. Many people around the world are having to curtail their consumption desires. This fragmentation ultimately also weakens the dynamics of the global economy – even with formal free trade structures.

The scale of transnational challenges, and the emerging implications of fragmentation, are exceeding the capacity of existing systems and structures, a state of disequilibrium. There is an increasing

mismatch at all levels between challenges and needs with the systems and organizations to deal with them. The international system—including the organizations, alliances, rules, and norms—is poorly set up to address the compounding global challenges facing populations. A key consequence of greater imbalance is greater contestation within communities, states, and the international community. This encompasses rising tensions, division, and competition in societies, states, and at the international level. Many societies are increasingly divided among identity affiliations and at risk of greater fracturing. Relationships between societies and governments will be under persistent strain as states struggle to meet rising demands from populations. As a result, politics within states are likely to grow more volatile and contentious, and no region, ideology, or governance system seems immune or to have the answers. At the international level, the geopolitical environment will be more competitive—shaped by China’s challenge to the United States and Western-led international system.

This contestation is playing out across domains from information and the media to trade and technological innovations.

Global alliances will play an important role in the future. System rivalry as a conflict between value-oriented democracies and illiberal governments up to authoritarian states characterizes the image of the future of Western evaluators in particular, while in China and the global South other images of the future are at least as important. The most effective states are likely to be those that can build societal consensus and trust toward collective action on adaptation and harness the relative expertise, capabilities, and relationships of nonstate actors to complement state capacity.

Within societies, there is increasing fragmentation and contestation over economic, cultural, and political issues. Decades of steady gains in prosperity and other aspects of human development have improved lives in every region and raised peoples’ expectations for a better future. As these trends plateau and combine with rapid social and technological changes, large segments of the global population are becoming wary of institutions and governments that they see as unwilling or unable to address their needs.

Human responses to these core drivers and emerging dynamics will determine how the world evolves during the next two decades. Of the many uncertainties about the future, we explored three key questions around conditions within specific regions and countries and the policy choices of populations and leaders that will shape the global environment.

Raw materials, like metals or minerals, are limited and bounded by access and availabilities. Global distribution but also total raw material reserves determine general availability – this can change over time. To overcome these limitations, moving away from a 'produce-consume-discard' cycle, waste itself should be more universally understood as a raw material – increasingly, it can be recycled, re-processed and re-integrated into production cycles, thus moving from a linear to a circular economy model.

Access to life's most basic resources, food and water, is unevenly distributed on Earth. Thanks to continuous efforts, progress to improve the situation of the most dependent could be observed over past decades: The global prevalence of undernourished children aged 5 years or younger dropped from 28% in 1990 to 13% in 2020. Still, too many people are exposed to famine around the world. The goal should not only be to feed everyone, but to do so in a sustainable way. Specifically, this includes lowering the consumption of water- and land-intensive foods, and to lower GHG emissions caused by food production.

All processes – in the economy, in transportation, in households and elsewhere – depend on energy. Current energy generation drives GHG emissions the most, urging the need for a transition to renewables. Major elements of the energy transition are to electrify the global economy, to replace fossil fuels, and to generate electricity from renewable sources. But replacing fossil fuels by renewable energy is not enough. In addition, a considerable improvement in energy efficiency is necessary to meet the future energy demand.

#### CAUSAL LINKS

Failing to address the causal links between multiple existential crises could lead to a situation in which we face a global multicrisis — a single, macro-crisis of interconnected, runaway failures of Earth's vital natural and social systems that irreversibly degrades humanity's prospects. Avoiding this fate calls for new types of research and analysis frameworks to understand the causal dynamics that connect systemic risks and to inform actions to generate positive feedbacks. A global multicrisis occurs when crises in multiple global systems become causally entangled in ways that significantly degrade humanity's prospects. These interacting crises produce harms greater than the sum of those the crises would produce in isolation, were their host systems not so deeply interconnected. Our current set of crises can be described as a multicrisis because self-reinforcing feedbacks between ecological breakdown and social breakdown are strengthening and growing more numerous. These cycles are part of complex systems, or of systems with a large number of highly

interconnected elements. Complex systems interact with each other in continuous, multidimensional ways, making them unpredictable and prone to shocks, or unexpected events with severe impacts.

Multiple global systems become causally entangled in ways that significantly and irreversibly degrade humanity's prospects. These interacting crises produce greater harm than they would have individually, if their host systems were not so profoundly interconnected. Humanity is in the midst of this interdependent, complex, dynamic world in a constant flux of change. How mobilize the information, knowledge, skills and capabilities of a distributed group (intern and extern) to extend problem solving ability. Unfortunately we tend to think in traditional disciplines, and, at best, across traditional disciplines.

The next years and decades will see further dramatic development in society, economy and global powershift driven by fast-paced technological innovation. Artificial Intelligence and neural nets are unleashing exponential increase in autonomous computational power. Humanity will further deepen its imprint on the Earth and create further uncertainties and vulnerabilities for its safe inhabitation.

In the current circumstances, we must find a new way to look at the future of our society and economy. The way out is a transformation, a multifaceted transition. This requires choices from society – policymakers, business, voters, investors: what needs to be broken down, what needs to be converted and what needs to be built up.

Regeneration– the capacity of a system, be it an individual, a forest, a city, or an economy, to deal with change and continue to develop – should be valued more as an essential element in the economic system needed to first shelter against the multicrisis and thereafter as a prerequisite to transition.

The world's dominating economic system is capitalism. The key purpose of this system is wealth accumulation through profit making. This leads to a sharp dichotomy in society: between those who earn money by selling their labor and those who earn money by making a profit by investing. Both want to increase their earnings. The solution to the conflict between labor and capital is productivity growth: only by working smarter can both achieve their aim. Working smarter means more production per hour worked. With that rising productivity, there is more left to split between profits for employers and rising wages for employees, but also for consumers in the form of lower prices for products. For everyone to have a job, more must be sold, because then profits can be higher, wages higher, and so on. Conflict may have been averted, but at the cost of a growth addiction. Only growth placates the fundamental tension between labor and capital.

According to supply-side economists, the essential growth has merely two drivers: productivity growth and growth of labor supply. The outlook for both is not promising in advanced economies. Labor supply growth is decreasing in most advanced countries and in some countries already declining. Proposed solutions for this, such as increasing retirement ages are only partly successful, while other options such as migration are in most countries politically very sensitive. Labor productivity growth is also declining in most Western countries and hence the 'growth machine' falters. This is a fundamental problem in all capitalist economies.

#### THE PURSUIT OF GROWTH CREATED FRAGILITY

The solution that is chosen up till now is 'buying time' with money. Initially by increasing public spending (resulting in higher public indebtedness), followed by rising private spending and thus indebtedness. Each in turn defused a potentially destabilizing social struggle, but each strategy exhausted itself after roughly a decade. In the process, the tax state transformed into a debt state and finally, today's consolidation state, where the locus of sovereignty has increasingly shifted to the financial interests of creditors trumping a state's responsibilities to voters. The first shift was driven by a sell-off of assets: privatization of infrastructure, utility companies, rail roads and postal services. A further deterioration happened when public indebtedness rose on the back of the 2008/09 Global Financial Crisis (GFC), and again when the COVID-pandemic started.

At the same time, private asset ownership concentrated globally in the hands of a few asset managers. Technology, regulation, and globalization were the driving forces of this development. This so-called asset manager capitalism is the most cynical form of capitalism: A few asset managers are universal owners of large parts of the global economy, but they do not care what happens as long as short-term returns are sufficient. Only when returns stall and de-risking is no longer possible, is it in the interest of asset managers to change course. This does not have to include trying to save the assets: if it is better for risk-return to adjust the portfolio of holdings, they will suddenly do so, wreaking havoc to the real economy in the process. Consequently, asset manager capitalism is a very fragile, financialized economic system with financial shocks that have real economic consequences.

The economy has become more financialized than ever, as indicated by liabilities as a percentage of GDP. The more financialized the economy, the more prone to boom and bust it is.



## POLARISATION AND INEQUALITY FEED UNCERTAINTY

Certainly, comparative advantages lead to welfare gains. But one of the side effects is that the wealth gains are not distributed properly, which increases inequality. Using the mobility of capital – and crafting the international regime to facilitate this – capitalists managed to break free from (unionized) labor at the national or regional level and turn it into an international race-to-the-bottom. Greater income and wealth inequality within countries results from the low-skilled in richer countries having to compete with workers in countries with a much lower living standard. Wealth inequality is increasing as overpowered companies exploit their global supply chains and capital flies very efficiently through tax optimization routes into the pockets of the very rich. As a result, social tensions and polarization have increased.

Because of all these developments, global wellbeing is no longer increasing. For the first time in years, progress on the Sustainable Development Goals (SDGs) stalled, while there was even a decline in the Human Development Index.

But inequality does not only affect society: it also aggravates the ecosystem crisis: a concentration of wealth leads to overconsumption and to more emissions than necessary. The bottom 50% of the global population is responsible for 16 of emissions growth over the last 30 years, whereas the top 1% is responsible for 25% of emission growth. In addition to that, unsustainable food patterns (such as too much meat and processed food) are both detrimental to health and the planet.

## THE ECOSYSTEM CRISIS IS PARTICULARLY PRESSING.

The potential for rapid destabilization of Earth's ecosystems is, in part, supported by observational evidence for increasing rates of change in key drivers and interactions between systems at the global scale. The current situation around climate change mitigation as 'a closing window'. non-stationary trends for ecosystem degradation imply that unstable subsystems are common We are on a path to 2.6 degrees of global warming. It is 'code red' on Planet Earth, a climate emergency. We see already the results, in terms of extreme weather conditions and their consequences: droughts, flooding, wildfires, melting ice, ocean acidification. It is not just a climate emergency, however. We are also facing a biodiversity crisis. The nine planetary boundaries are increasingly being transgressed: from four out of nine in 2009 to seven out of nine in 2022 according to recent research. Increasing loss of biodiversity, biosphere integrity in general, land-system change, changing biochemical flows, introduction of novel entities, pollution, water scarcity, are all leading to enormous systemic challenges. There is an urgent need for a new paradigm that integrates the continued development of human societies and the maintenance of the Earth system in a resilient and accommodating state.

Despite some natural environmental fluctuations over the past 10 000 years (e.g., rainfall patterns, vegetation distribution, nitrogen cycling), Earth has remained within the Holocene stability domain. The resilience of the planet has kept it within the range of variation associated with the Holocene state, with key biogeochemical and atmospheric parameters fluctuating within a relatively narrow range. At the same time, marked changes in regional system dynamics have occurred over that period. Although the imprint of early human activities can sometimes be seen at the regional scale (e.g., altered fire regimes, megafauna extinctions), there is no clear evidence that humans have affected the functioning of the Earth System at the global scale until very recently. However, since the industrial revolution (the advent of the Anthropocene), humans are effectively pushing the planet outside the Holocene range of variability for many key Earth System processes.

There are the non-negotiable planetary preconditions that humanity needs to respect in order to avoid the risk of deleterious or even catastrophic environmental change at continental to global scales. These thresholds are defined as non-linear transitions in the functioning of coupled human–environmental systems and are intrinsic features of those systems and are often defined by a position along one or more control variables. Trespassing thresholds -tipping points- trigger non-linear dynamics at the lower scales and this non-linear changes, from a desired to an undesired state.

The complex of ecosystem crises is culminating, and tipping points are near. The path to a ‘sustainable Anthropocene’ is getting smaller every day we continue to go on the same footing.

In the midst of a multicrisis it is too easy to say that systems have to change, that a radical transformation is required. In the midst of chaos – also a typical element of a transition – it is also good to work on system resilience. But the balance is important here. If we invest too much in redundancy, diversity and adaptability, the much-needed transformation would probably not take place: we would only strengthen our current system. We would make it less efficient in an economic sense, less profit making in the short-term, but we would shield it from breakdown.

This is a time that calls for new attitudes and behaviors. Strategies that seemed to make sense before the multicrisis, such as efforts to grow national economies, will need to be replaced by different ones, such as efforts to build resilience. Fortifying resilience at the community level will be especially important: as global supply chains grow brittle and shatter, humanity will depend more upon local economies for survival and opportunities to thrive. Cooperative strategies to ration scarce resources and reduce inequality will also be required so as to defuse conflict and ensure optimal outcomes for as many as possible.

## THE DISSONANT SOCIETY

The success of a modern society is due to functional differentiation, which allows for the autonomous development of the economy, politics, healthcare, the law and education. The instruments to resolve different social problems can do so only if their own logic is respected: the law resists political instrumentalization; the market is emancipated from political guardianship; cultural creators are freed from moral censorship; science can concern itself only with the truth; even religion stops being responsible for maintaining social cohesion.

Politics, and maybe specifically democracies, have practical difficulties when it comes to managing crises, not because they are democratic but because they are designed for a world that is now largely non-existent. They assume that society continues to be harmoniously differentiated when the truth is that it is dramatically fragmented, as if we were in a global society composed of self-sufficient sovereign states. They assume they are capable of unifying criteria and mobilizing when, in reality, they barely manage to do so within themselves or with the rest of the states. If we do not understand the nature of this anachronism, we will not be able to take responsibility for the crisis in our society. Problems do not stem from the lack of differentiation but from the difficulty with balancing those differences. Society finds itself in a very different situation than the glorious age of the nation states, in spite of the nostalgic attempts to recover that coherence.

The main issue (problem) confronting today could be formulated like this: how can we re-establish coherence between all those areas that are currently in opposition without sacrificing the freedoms that have been achieved due to their separation and knowing we can no longer depend on undisputed authorities capable of unifying everything?

Our perception of reality and the institutions themselves are designed to solve isolated and well-defined problems, but they find themselves overcome when one problem is interspersed with another and requires the collaboration of diverse actors, viewpoints and institutions. Institutions that resolve isolated problems relatively well—in accordance with the concept of differentiation—, that fail systematically when dealing with a problem that implies various areas and social rationales. Society itself is in crisis because the management of these crises must be carried out in a world that is interdependent, decentralized, of distributed intelligence, radically plural, while its institutions are frequently none of those things. Crises today come about in a quick and complex fashion; they involve many interactions between diverse aspects -ecologic, economic, societal, shifting global powers-, without respecting bureaucratic and jurisdictional delimitations. This produces catastrophic chains of events that are not resolved in cause-and-effect relationships, but as a result of

unforeseeable emergencies. Many of the crises we suffer are not due to simple causalities but to complicated realities

The true crisis of our societies and the recurring catastrophes are its reminders, then we must address these problems in another way, with more foresight, holistically, transnationally, collaboratively and horizontally; the crises are reminding us of the necessity to think in a new way about governance, more receptive for the unprecedented procedures it will need to adopt in a society that is becoming increasingly unpredictable.

Surrounded by a paradox; society can do so much and yet so little at the same time. It is concurrently so powerful and so fragile. It is capable of deploying unprecedented technological power, yet it cannot guarantee development that is balanced in legal, social or ecological terms. Society today is, simultaneously, what should change and the place where the greatest resistance to change is generated.

If humanity descends into blame and desperate efforts to maintain a status quo that by its very nature cannot persist, the future looks dark indeed. Our longer-term message to society, business should be aligned with the principles of anti-fragility, transformation and long-term value creation instead of short-term risk-return profiles. In the debate sessions we produce a long-term outlook, we will dive into the nature of the global multicrisis, resilience, transformation and regeneration. Creating a more anti fragile society to make the necessary transformation towards regeneration is now more critical than ever. It is time to make a giant leap forward.

If we work together now to build a truly sustainable way of life, maybe future generations will have at least some reasons to thank us.

