

Possibilities 2050

An assessment of
the world's prospects mid-century

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You might disagree with elements of this work.
But it might help clarify your thoughts.

Palden Jenkins

Cornwall, UK | palden.jenkins@btopenworld.com
www.palden.co.uk | www.possibilities2050.org

For my grandchildren
and for yours too

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Before we start

There are known knowns – these are things we know that we know. There are known unknowns – that is to say, things that we know we don't know. But there are also unknown unknowns – things we don't know we don't know. – Donald Rumsfeld, US Defence Secretary, 2003.

This is a concise survey of the conceivable possibilities for the world around the year 2050, mid-century. It is kept reasonably simple to help you gain an overview of the plethora of issues before us, without going into too many details, complexities and technicalities. It examines the potential situation in the mid-21st Century from a variety of angles. It highlights a range of questions, some of them awkward, that need attention if humanity is to survive and thrive in future.

This is a personal take on the matter, following much rumination. We all have our specialities, and getting our heads around issues outside our sphere can be difficult. So this is written to help you formulate an all-round picture of the future and what to do about it in the context of your own life.

The only thing we can safely say about the future is that it cannot reliably be predicted. There are too many variables, unknowns, unknowables and complexities to make dependable forecasts. All the same, likelihoods can be identified. The best approach is to look at overall trends and potentials that are visible today or that lurk under the surface – *megatrends* – and at mechanisms shaping the future. What's most important is that we prepare our thoughts for a spectrum of possibilities.

Much can happen between now and mid-century, given the intensifying conjuncture of global dynamics at play today. A multiplicity of issues are approaching a critical point in coming decades, from ecological degradation to remarkable technological breakthroughs. Things won't return to normal or go back to the good old days. Conditions could be harder than we want, yet there will be redeeming factors. Even miracles can happen – after all, sensible, considered, morally consistent, cooperative human behaviour would constitute a miracle.

It is not in our gift as humans to control all of the issues mentioned here: big and multiplex factors are at work, some of them natural, some unexpected and many of them the outcome of multiple layers of human action, reaction and error, and the incidents, decisions and omissions of former times. What will *actually happen* over coming decades remains to be seen, and much will depend on how we respond to events and developments as they arise.

Many forecasts see 2050 as a likely crux point in world history where a number of trends together come to a climax – population, climate, resources and other factors. It could even be argued that we are living through a *crux century*, stretching perhaps from around 1965 to around 2070. A century seems like a long time, but the European Renaissance, modernity's dawn, had a similar duration.

The world has tended to prioritise national, sectoral, narrower and shorter-term interests over longer term, wider, global issues. This is problematic. Longterm, wider considerations are now pulling harder on our attention. “*Progress on an incremental, piecemeal, business-as-usual basis in the coming decades will not be enough*”, says the OECD (a club of richer nations), in its 2012 forecast for the world in 2050. That's a staidly respectable organisation saying that. Truth is, instability and even a state of global emergency are possible.

One theme of the 21st Century is the unfolding of *consequences* – consequences of issues and megatrends already at play today. Two examples are population growth and the risk of nuclear war.

Population growth underlies every single subject covered in this report, from climate and biodiversity to health, society and economics – it is perhaps the biggest single driver of change today. Meanwhile, one relatively localised nuclear conflict could wreak destruction on large numbers of people, ruining and irradiating whole landscapes, and it could also change the global climate in just one week, bringing a nuclear autumn or winter. Just these two of many other issues need taking in hand if the future is to be promising for our descendants.

Scenarios and possibilities

There's a difference here between *making big decisions* (to phase out fossil fuels or eliminate poverty, for example) and *responding to defining moments and crunches* (such as dealing with financial crises, conflicts, pandemics or disasters). What's important here is the way that people and countries deal with game-changing, defining moments, critical junctures and tipping points, during which much is decided very quickly, whether by intent, by accident or by force of events. So the *responding* option could be more critical and definitive than the first, *deciding*, option.

Four conceivable generalised scenarios can be postulated for the future: *manageable*, *difficult*, *disastrous* and *transformative*. In different parts of the world, each scenario could play itself out differently at the very same time. This is what we see today: some live in relatively blessed circumstances and others subsist in a living hell, all on the same planet, simultaneously. People in Malibu or Dubai live in a totally different world to people in Gaza or Kinshasa.

A manageable future is one in which, relatively speaking, our luck holds, evolving circumstances aren't as bad as some people fear, the powers-that-be make sensible decisions and world society adapts well enough to intensely changing conditions. We navigate a challenging time by implementing blueprints such as the UN Sustainable Development Goals, instigating responsible business, government, social and ecological good practice, improving

international relations, reducing consumption, improving resilience and sustainability, reducing inequality and making bold responses to unfolding events and trends. This relatively comfortable option is what most people would prefer, though it nevertheless means managed, large-scale change, and much more change than we anticipate today. Some will be winners and some losers, and one key question is whether the gap between them grows or shrinks and whether losers are catered for or left to suffer or die, just as we have left Yemenis, Syrians and Congolese to their sorry fates today.

A difficult future involves serious crises and things getting much harder, not just for the poor and the marginalised but for everyone. It involves scarcities, painful conflicts of interest, tough events and complexities, perhaps war, pestilence, superstorms, geopolitical and other threats and critical crunch-moments, making life precipitous and insecure and demanding a firefighting approach to unfolding developments. There could be mass migrations of people seeking food and safety. In parts, lawlessness could break out. Safe, secure countries would become a memory. Governments and economies struggle, helpful changes move too slowly, anxiety goes global and many people experience significant loss, but the world system more or less holds up. Humanity might get through it, scarred but alive, by late-century – conceivably by going into an emergency-mobilisation mode. The world would change radically, and not in a way we would like. There could also be compensating factors, amazing breakthroughs and remarkable moments, even under duress.

A disastrous future sees us encountering shocking, overwhelming catastrophes, currently inconceivable. We might survive these in a much reduced condition, but a large majority of people could die and much would be destroyed. It is survival-of-the-fittest, the lucky and the most-organised. Cities might become uninhabitable. The world's climate goes severely out of balance. Humanity might not survive at all. It is devastation. The interdependencies and organisational systems needed for the civilisation we now know would be diminished or gone. It is then a matter of how survivors,

if any, progress from there. This scenario most of us would prefer not to contemplate but we *must* consider it as a possibility. Our overall handling of events and developments today, internationally, fails to ensure that we will avoid this option.

A transformative future is one where, in answer to show-stopping situations and circumstances, the world's societies and economies decide to make fundamental adaptive changes in their manner of operation – as much a product of mass initiatives as of good, Mandela-esque leadership. The nature of the game would change from bottom to top. This would be a spirited psycho-social, as well as a material and a systemic shift – and not without big challenges. We would start grappling with issues and problems very differently from now, reorienting the direction, rules, norms and priorities of society, international relations and our relationship with the natural environment and resources (for example, by instituting a ‘circular economy’). At heart this would involve a profound shift in the way we see things. Sounds idealistic, perhaps, but it would more likely be made up of pragmatic strategies to deal with high-impact, real challenges. It wouldn't be heaven – more the application of unusually good sense and realistic cooperation, together with a mobilisation of all available, particularly human, resources. Things would start looking and feeling very different.

A precedent is the WW2 war effort of 1939-44 in Britain, in which society and the economy were transformed in 2-3 years from a capitalist to a command economy, in response to threatening circumstances. It worked, more or less, though it demanded national unity, strong leadership, public consent and mobilisation, fairness, rationing of essentials, major acts of trust and many selfless sacrifices. Public will and consent were important, and they shall be so in coming decades.

We must consider two further matters. The first is this: it's important to avoid skewing our picture of the future with predispositions inherited from the past. This concerns *what we want* and *what we fear*. We all have our various positions, beliefs and preferences and we each see the future through a certain optic. This

report has its perceptual biases too – that’s unavoidable. The future will be sculpted amidst a ferment of viewpoints and a multiplicity of situations, a process of jostling. A variety of futures will arise for different people and in different regions. This will summate into a multifarious global totality. Hopes and fears don’t necessarily help, and can make things worse.

The second is: *we will get what we get*. The key question here is *what will actually develop* by mid-century – not necessarily what we want, visualise, campaign for or dread. What unfolds will be the reality people of the time will have to live with. Estimating what this might look like is an elasticising experience, posing a challenge to explore unthinkable and look beyond the reality-field of knowns, accepted opinions and comfort-zones of today. John Lennon once sang, *life is what happens when you’re busy making other plans*, and there’s truth in it.

Of defining moments and black swans

By 2050, people won’t judge things by today’s norms. Millennials and their children will decide the shape of mid-century reality, especially in the majority or ‘developing’ world where they are numerically the largest generation. Things we now consider remarkable, unimaginable or outrageous will become the new normal. New factors we haven’t considered will appear, and some anticipated probabilities will not happen at all, or not in the way we think they will, or leading to the consequences we currently expect. And life will go on. If you showed the fullness of today’s reality to someone from, say, the 1950s, they’d look at it with a mixture of fascination and horror.

Only part of the future will be forged by making thought-through, principled decisions. Much of it will arise from questionable choices, dodgy politics, ricocheting circumstances, evolving facts, luck, opportunism, profit perceptions, corruption, brilliance, incompetence, incidents and accidents. *Black swans* will be involved – events and developments that no one believed possible until they actually happen. Centuries ago, people thought that

swans were white only, until black swans were found in Australia – hence the name.

Recent black swan instances have been the 1989 fall of the Berlin Wall, the 2008 Credit Crunch, the 2014 rise of the Islamic State, and Brexit and Donald Trump in 2016. Go back a few years before each of these and they were unforeseeable and impossible, to most. After the event we re-edit our mental maps to incorporate such events as if they had been expected, but they weren't. Black swans will continue happening – this is guaranteed – though their nature, shape and size is the stuff of guesstimates. This makes forecasting difficult, but factoring in black swans is necessary. Airplanes, cars and computers were once upon a time impossible, and so too, before your birth, were you.

Events tend to evolve in pattern-setting jumps – periodic defining moments where the game-plan changes critically. The whole period from 2008 to 2014 was like that. Our sense of future possibilities tends to be defined by groupthink and received beliefs, a safe territory of knowns and expectations established by consensus or in the utterances of experts and authorities. But things can head in different directions from this, and more can happen than we bargain for. In a sense, events are not guided solely by the past – it is almost as if the future pulls the present forward, toward possibilities or inevitabilities we hadn't quite reckoned on.

These shifts happen suddenly, sometimes surreptitiously. The tipping point in today's power shift from the West to Asia was the 2008 Credit Crunch – a defining moment that most people thought was a banking crisis, but its implications were bigger, deeper and further-reaching. There will be further tipping and inflection points, each preceded by incremental shifts along a trajectory that suddenly goes critical and changes, and 2008 was such a moment. Expect more.

Even so, the after-effects of such shifts take time to emerge. In the late 2010s there has been a flurry of technological inventions and advances arising from ideas hatched around 2008-12 in hidden

away labs, backrooms and meetings. It takes time for things to unfold, even when a tipping point has been crossed. Not only this, but the symptoms of a defining moment can appear in disguise, looking as if the wrong thing is happening when things are going strangely right. Around 2008-12, Asia discovered that it had a serious pollution problem – smog and toxicity. Up to that point, nagging Westerners with their environmental concerns were not fully believed. This discovery marked a tipping point after which Asia became the leading source of momentum in a global-scale clean-up that will unfold in future years. The West will contribute significantly since it has had a head start, but the leading impetus now comes from Asia. That wasn't expected.

In surveying the future it is thus necessary to factor in defining moments, tipping points and black swans. By their very nature, and because of our *normality bias*, we don't easily see them coming. But they come anyway. Talking of which, there is a fifth possible future world scenario that we must mention here, an *apocalyptic scenario* – apocalypse meaning 'revelation', not catastrophe. There is the smallest of chances that the greatest of all black swans could occur, in the form of a return of the Christ, or of the Mahdi, or of a landing of ETs, or of a sudden dawning of a new light-filled age, or some other such miracle cure for our woes. This possibility does not suit the modern mindset, though for some people it is an article of faith. Although several end-of-the-world and redemption mega-events have been predicted in the last fifty years, none has happened – at least, noticeably. This also happens to leading politicians, whose key pronouncements have an uncanny habit of turning to their opposite – Margaret Thatcher's 'people's capitalism' allowed the rich to get richer and Donald Trump's 'making America great again' seems to be hastening its subsidence.

If this report suggested that, by 2050, an apocalyptic scenario were to happen, it would quickly lose credibility – such a thing is, after all, commonly agreed to be impossible, the stuff of fantasy. But wait, it is wise not to exclude remote possibilities completely, even when they confront our normality bias. They might look

improbable or impossible, but let's not lock that door: if the high commander of the Galactic Confederacy just so happened to ring the bell, we might be faced with a few rapid choices to make. So we must accommodate the slim possibility of enormous black swans in our future calculations. "*Trust in Allah, and tether thy camel*", said the Mullah Nasrudin. Have faith in whatever you wish to believe in (including rationality), but do the sensible thing anyway.

About this report

This assessment is divided into broad sections which each stand as realities, or *silos*, in themselves, though they are inseparable and interrelated. Unfortunately, these bundles of issues pull in quite differing and contrary directions, and that's a key problem. Their presented order in this survey does not reflect their order of importance. We're looking at a multifaceted hologram.

By necessity, a concise work like this cannot include statistics, evidence, discussions, explanations and footnotes, otherwise it would fail to be concise. Were it lengthy and erudite, readers would set it aside for another day – "*Interesting, but I'm too busy*". Herein lies another problem: the Big Picture is, for most of us, too big to comprehend. So it has been boiled down to a succinct overview. However, useful links are given in each section, allowing some follow-up.

The scale and breadth of what we need to consider makes this whole question perplexing. It would be good to present a consistent, all-embracing plan for the future, but this is not easy because the paradoxes, inconsistencies, contradictions and hypocrisies of our day lie at the heart of this question. Many factors pull in different directions. The world is in an enormous mess and tangle.

Many people understandably switch off, set the matter aside, wring their hands or ruminate in quiet concern, and we all have busy lives to get on with. So we tend to give passing concern to these issues and then return to our hectic schedules. Yet clarifying the all-round issues that are visible today will surely help us see more clearly

through the swirling fog of the longterm. And whether or not we act sensibly is *the big issue*, especially since our grandchildren will inherit the results.

Methodology and sources

The initial intention was to survey the existing literature to report on the overall drift of future-oriented thinking. In doing the research it was found that the literature is patchy, tilting in contradictory directions, and some of it is neither useful nor very forward-thinking. Researchers often report what they believe their sponsors want to hear, or they avoid career-killing statements, or they seek publicity or support, or they stay within their own silos and ignore the rest.

Many reports on the future focus on technology – generally upbeat, distorted by the billion-scale profits involved and airbrushing over complications and impediments. Economic research often stays within a set of business-friendly assumptions to bolster market confidence and reinforce corporate groupthink. Climatic and ecological research tends understandably toward dismay and pessimism, motivated by a need to persuade governments and the public to take it seriously, and striving to counteract the views of deniers. Geopolitical analyses depend greatly on what side you're on and on national perspectives. Research on the future of society is scanty – journalists tend to be good at this. Some material is over-idealistic and some, conversely, lacks vision. Historians, averse to counterfactual historical analysis and forecasting, think futurology is distinctly outside their sphere. Very few writers survey *the whole, wide picture*. But a few do.

So there has been a need to cross silo-boundaries, fill gaps, stretch beyond current memetic perspectives, go deeper and bring skyscraper thinking down to ground floor. Quite a lot of carpet has been worn out in the process. The report does not claim to be authoritative though hopefully it is illuminating, best used as a way of stimulating your own thought on the big picture. One recurrent theme throughout is rarely mentioned in the available research: the

shape of the future depends greatly on humans' subjective foibles, political choices and sometimes madneses.

We start with the UN Sustainable Development Goals, a global programme of action agreed by UN member states. Whether or not this plan works, it is well intentioned and constitutes a serious and rare attempt at formulating a body of global aims for nations and institutions to follow.

Thanks for reading. Now let's start the journey.

Palden Jenkins

Cornwall, UK, 2018.

Sustainable Development Goals

This is the closest to a global plan that we have. It was agreed by UN member states in 2015, following on from the Millennium Development Goals (MDGs) of 2000-2015 and setting seventeen goals and 169 targets for all countries to achieve by 2030.

- *End poverty.* Extreme poverty was halved between 1990 and 2015, but wider signs of poverty also include poor healthcare and education, hunger, discrimination and political exclusion.
- *Zero hunger and malnutrition.* Doubling agricultural productivity and the incomes of small-scale food producers, ensuring sustainable food production systems, improving land and soil quality, maintaining the genetic diversity of seeds, preventing trade restrictions and distortions in world agricultural markets, limiting food price volatility and eliminating waste.
- *Good health and wellbeing.* Universal health coverage including access to medicines and vaccines, ending preventable deaths of new-borns and under-fives, ending epidemics such as AIDS, TB, malaria and waterborne diseases, and preventing and treating substance abuse, death and injury from traffic incidents, hazardous chemicals, pollution and contamination.
- *Quality education.* All girls and boys to complete free, equitable and quality primary and secondary education (a key ingredient in economic growth and change in social attitudes).
- *Gender equality.* Providing women and girls with equal access to education, healthcare, decent work and representation in political and economic decision-making processes.
- *Clean water and sanitation.* Safe drinking water, water sources and hygienic toilets.
- *Affordable, reliable and clean energy,* including goals to increase renewable energy.

- *Decent work, full employment and economic growth.* Longterm economic development, reduction of youth unemployment, living wages, acceptable working conditions.
- *Industry, innovation and infrastructure.* Building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation and entrepreneurship.
- *Reduced inequalities* within and among countries. Redistributive taxation, equality of opportunity, fair remittance costs and low import duties favouring least-developed countries.
- *Sustainable cities and communities.* Inclusive, safe, resilient and sustainable cities with well serviced and affordable housing, adequate public services and urban impacts.
- *Responsible consumption and production.* Eco-friendly production, waste and pollution reduction and sustainable practices.
- *Climate change.* Combating climate change and its impacts by regulating emissions and promoting developments in renewable energy.
- *Oceans, seas and marine resources.* Dealing with pollution, acidification, plastics, species conservation, shipping and coastal and fishery conservation.
- *Life on Land.* Protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification and halting and reversing land degradation and biodiversity loss.
- *Peace, justice and strong institutions.* Promoting peaceful and inclusive societies, access to justice for all, and effective, accountable and inclusive institutions at all levels. Reducing violent crime, sex trafficking, forced labour and child abuse.
- *Partnerships for achieving the goals.* Developing international cooperation and multi-stakeholder partnerships to share knowledge, expertise, technology and financial support. Responsive government and public-private partnerships involving civil society.

However, there are problems with these goals. Some of them conflict with each other: there are inherent conflicts particularly between economic, social and environmental aims. Also, the cost of achieving these goals is high and, under current conditions, arguably it is politically unrealistic, requiring about \$2-3 trillion per year until 2030, at a time when pledged funding and paid-up funds can differ considerably – a regrettably common habit today. Estimates for providing clean water and sanitation alone could be as high as \$200bn.

SDG implementation started in 2016. Governments are required to translate the SDGs into national legislation, develop a plan of action, establish budgets and search for implementation partners. There is a reporting and monitoring problem since many nations massage their figures to appear compliant, or they apply measures that are not entirely beneficial overall (they just look good, or they can serve veiled vested-interest purposes), or they simply say one thing and do another. Meanwhile, the UN has few sanctions it can apply for non-compliance.

One unstated development goal seriously affects and contradicts the above-named SDGs: *making a profit*. The international system is a capitalist system, and corporate profit priorities clash with many of the problems that the SDGs set out to address. So the current world business climate can impede progress in achieving the SDG aims, and it has spent the last 50 years doing so. There is therefore a serious glitch with the SDGs inasmuch as they attempt to bring about their noble aims without addressing more fundamental systemic changes to deal with the excesses and impacts of the global economic system.

The SDGs are therefore weakened and, while notable progress will indeed be made with these goals by 2030 and many benefits will arise from them, a tension between the aims of the SDGs and those of the economic system and its main beneficiaries – richer countries, people and corporations – will undermine them. This is a critical issue.

We are thus faced with an unresolved question of global priorities. *This single matter lies at the heart of all calculations concerning the world's future.* Until it is resolved, the world is attempting to move in two divergent directions – toward both profitable aims and sustainable and just aims. This jeopardises our longterm future. It represents an unclarity over the world's primary goals and objectives. This is seriously problematic. This issue, currently avoided, is likely to become critically unavoidable at some point in the future.

Interesting links

SDG Index, Bertlesmann, 2016 (*about progress being made, nation by nation*). http://www.sdqindex.org/assets/files/sdq_index_and_dashboards_compact.pdf

Critique of the SDGs, Yale Univ, 2017.

https://campuspress.yale.edu/thomaspogge/files/2015/10/SDG-HR_Rev-Jan-25-uugh97.pdf

Three Challenges facing the UN's Sustainable Development Goals, WEF, 2015. <https://www.weforum.org/agenda/2015/08/3-challenges-facing-the-uns-sustainable-development-goals/>

Global Pressing Problems and the Sustainable Development Goals, GUNI Network, Catalonia, 2017. <http://www.guninetwork.org/articles/global-pressing-problems-and-sustainable-development-goals>