

# Report on Global Reports, 2020-2021: The Whale and the Minnows

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## **Abstract**

The first survey of 25 recent online reports on the global environmental emergency was published in CADMUS (4:1, 2019), with emphasis in the title on "Scientists Reporting." This second survey also covers 25 recent reports on sustainability issues, but it is juxtaposed with a relatively long review of the March 2021 global trends report of America's National Intelligence Council, which received a lot of publicity, and is thus described as "the whale" in terms of its visibility. The NIC report has much to consider in terms of structural forces and emerging dynamics leading to "a more contested world." However, remarkably, it pays no attention to gathering forces for sustainability, the Sustainable Development Goals, or science-based environmental reports from the UN and other respected organizations, described here as "the Minnows" in terms of their visibility. These reports are arranged in four categories: 1) Other General Reports (WEF, GCF, UNOG/WAAS, UNDP, etc.); 2) Biodiversity in Peril (CSR, PNAS, WWF, UNEP, etc.); 3) Climate Concerns (CCS, The Lancet, NOAA, CIEL, etc.); and 4) Proposals (Oxfam, HRW, ILC, FABLE, CIEL, UNEP, WBCSD). If the NIC social scientists had paid attention to the earth scientists and biologists, their outlook would be even more grim. But our contested world could be less bleak if widely proposed transformations to security and sustainability are recognized and even partly successful in the critical decade ahead. Concludes with proposals for strengthening visibility and leadership of the "minnows."

As the COVID-19 pandemic recedes in some countries, while spreading in others, vaccines are becoming available, although distribution is still problematic in many locations. Reports on COVID itself (see *Cadmus*, 4:3, 2020) have waned, but many reports on other global challenges continue to be issued, and many mention COVID as a concern, and often as a possible spur to action on other challenges, notably climate change and biodiversity.

The sub-title of this review is somewhat exaggerated to make an important point. "The Whale" refers to the quadrennial Global Trends report of America's National Intelligence Council, which was reviewed in *The New York Times* and also prompted a lengthy Times editorial. It even got a half-page review from *The Washington Post* reprinted in the local newspaper where I live in upstate New York. The NIC report is a powerful multi-disciplinary synthesis of structural forces, emerging dynamics, and regional forecasts (see below). But it is weak on environmental challenges, notably biodiversity.

"The Minnows" refers to 25 other reports mentioned here, many as long as the NIC report and just as important. But *in terms of public visibility only*, especially in the US, they are like a variety of small fish not swimming in formation. There is no easy solution to this inconvenient truth of visibility, seldom mentioned, if at all. At the least, the other reports, both descriptive and normative, deserve to be mentioned, and perhaps they will grow larger than minnow-size.

"The international system—including the organizations, alliances, rules, and norms—is poorly set up to address the compounding global challenges facing populations." – Global Trends 2040

## 1. The "WHALE"

**Global Trends 2040:** A More Contested World (March 2021, 144p) is the 7<sup>th</sup> edition from the National Intelligence Council, published every four years since 1997, to assess key uncertainties that will shape the strategic environment of the United States. It is also published "for audiences around the world to read and consider," in the polite but problematic hope that it "provokes a conversation about our collective future."

And there is much to consider in three general sections: 1) *Structural Forces:* on demographics, health challenges (antimicrobial resilience, infectious and non-communicable diseases, mental health), environment (but only one skimpy paragraph on biodiversity), economics, and technology (other than green technology); 2) *Emerging Dynamics*: societies (disillusioned and divided), state tensions (turbulence and transformation), international (more contested, uncertain, and conflict prone), and the future of terrorism (diverse actors, fraying international efforts); 3) *Scenarios for 2040:* "Renaissance of Democracies" led by the US and new technology; "A World Adrift" due to slow vaccine rollout and other crises; "Competitive Coexistence" of US and China, "Separate Silos" of states raising barriers and retreating into Blocs, and "Tragedy and Mobilization" on a global catastrophe in the early 2030s leading to a global movement for bold systemic change.

GT2040 also has a section on forecasts to 2035 for nine world regions, and a valuable summation of the outlook for international norms (p.109), divided into least likely to be contested (national sovereignty), likely regional variation (LGBTQ protection), norms at high risk of weakening (arms control, women's rights, democracy), and norms in early development (Arctic access, biotechnology, AI, and cybersecurity).

One can readily agree with the overall assessment that "The international system—including the organizations, alliances, rules, and norms—is poorly set up to address the compounding global challenges facing populations."

The report concludes with three pages thanking hundreds of organizations and individuals for various inputs. But there is no reference to any UN agencies, environmental think tanks,

or any of the thousands of earth scientists and biologists who increasingly warn that we are close to exceeding planetary boundaries. This is an egregious blindspot!

The NIC report, which summarizes the findings of 17 US intelligence agencies plus the outsiders mentioned above, is not supposed to make recommendations. But optimistic scenarios are a way to suggest what might be done. Unfortunately, the five scenarios are simplistic, such that the general outlook is not bleak enough due to underestimating the growing environmental crisis—yet not sufficiently optimistic by pointing to what is being done!

The first scenario, a Pollyannish future based on US leadership and new technology, depends on successful distribution of COVID-19 vaccines in 2021, which will not happen in most nations until 2022 or even 2023, allowing time for new variants to develop. Along with many other challenges described elsewhere in the report, and some not mentioned, it does not meet the scenario standard of plausibility. The next three scenarios are somewhat more plausible.

The last scenario, however, has a major flaw. It begins by stating that "In the early 2030s, the world was in the midst of a global catastrophe." This leads to widespread famine that catalyzes a global movement in 2040 led by the EU for "bold systemic change," and setting a new target date of 2050 for the UN's Sustainable Development Goals. Remarkably, this is the first and only mention of sustainability, the UN, or the UN's 2030 SDG Agenda! If the NIC had consulted the expanding world of sustainability science and concerns, the final scenario would recognize that a global environmental catastrophe is well underway today, and that both the EU and President Biden are mobilizing to address it. Our "contested" future would still be difficult, but less bleak if widely proposed transformations to security and sustainability are even partly successful by 2030, rather than beginning in 2040.

The "minnows" described below provide ample support for this more realistic and hopeful view.

# 2. Other General Reports (5 Items)

The World Economic Forum in Davos, Switzerland, is widely known by business and political leaders. Their Global Risks Report 2021 (Jan 2021, 96p) is the 16<sup>th</sup> annual edition sharing results of their Global Risks Perceptions Survey, while offering proposals for enhancing resilience. The *Top Ten Risks by Likelihood* are extreme weather, climate action failure, human environmental damage, infectious diseases, biodiversity loss, digital power concentration, digital inequality, interstate relations fracture, cybersecurity failure, and livelihood crises. (Note that the top five risks are all environmental!) Their *Top Ten Risks by Impact* are infectious diseases, climate action failure, weapons of mass destruction, biodiversity loss, natural resource crises, human environmental damage, livelihood crises, extreme weather, debt crises, and IT infrastructure breakdown. The report also discusses increasing inequality due to COVID-19, growing digital divides, youth disillusionment in an age of lost opportunity, climate change as a looming risk as global cooperation weakens, and better pathways to manage risk. In sum, this is a pretty big "fish" classified with the "minnows" for the sake of convenience, and quite different from the NIC report.

Global Catastrophic Risks 2020 (July 2020, 54p), from the Global Challenges Foundation in Stockholm, describes weapons of mass destruction (nuclear, biological, and chemical), catastrophic climate change, ecological collapse, pandemics ("If ever there were an argument for enhanced global cooperation to tackle catastrophic risks, COVID-19 is it"), asteroid impact, supervolcanic eruption, and artificial intelligence (significantly smarter than any person, with a note on autonomous weapons), key factors affecting risk levels, and governance issues. "We have now exceeded the safe limit for 4 of the 9 identified planetary boundaries...with human actions estimated to be causing the planet's climate to change 170 faster than natural forces." (pp.4-5).

"The COVID-19 crisis has exposed stark global inequities, fragilities, and unsustainable practices that pre-date this pandemic and have intensified its impact." – UN Research Roadmap for the COVID-19 Recovery

Global Leadership for the 21st Century (Feb 2021, 20p) summarizes the 15-16 December 2020 conference sessions sponsored by the <u>UN Office at Geneva</u> and the <u>World Academy of Art & Science</u>. The conference aimed "to develop cross-catalytic strategies to address current global leadership challenges," with >800 participants from some 100 countries joining online. Topics from the 16 working groups included a new social and economic paradigm, the continued importance of the 2030 Agenda for Sustainable Development as a compass for action, restoring public trust, the inequality crisis, a paradigm shift in the world of work, empowering youth to become leaders of today, climate change as the defining issue of our times, renewing multilateralism, global governance innovations needed at all levels, the need to break down silos across disciplines and stakeholders as well as different UN entities (e.g. this Report on Global Reports), the mainstreaming of human security into all UN actions, a Planetary Emergency Plan, global health and food security, reorganizing education, financing the SDGs, and more.

Human Development Report 2020. The Next Frontier: Human Development and the Anthropocene (Dec 2020, 317p) is the 30th anniversary edition of the <u>UN Development Programme</u> flagship report, noting that pressures on planet Earth have grown exponentially, taking the Earth to the brink. Climate change, inequality, and people forced from their homes by conflict and crisis "are the results of societies that value what they measure instead of measuring what they value." Advancing human development while erasing planetary pressures is the next frontier. Chapters discuss leveraging the human development approach for transformation, the scale and speed of human pressures on the planet, empowering people (for equity, innovation, and stewardship of nature), unleashing transformation, finance to incentivize transformation, nature-based human development, and a new planetary pressures-adjusted Human Development Index that broadens the vista. "It is not a question of choosing between people or trees; it is neither or both."

UN Research Roadmap for the COVID-19 Recovery: Leveraging the Power of Science For a More Equitable, Resilient and Sustainable Future (Nov 2020, 123p), from the UN Office for Partnerships, warns that "the COVID-19 crisis has exposed stark global inequities, fragilities, and unsustainable practices that pre-date this pandemic and have intensified its impact." Recovering better will depend on bold efforts. Designed to complement an April 2020 Framework for socio-economic response, the Roadmap outlines 25 research priorities for the five pillars of the framework: health systems, social protections, economic recovery programs, macroeconomic policies and multilateral collaboration, and social cohesion and community resilience. Chapters discuss interdependence and co-benefits, science strategies, rapid learning systems, knowledge mobilization, and a "quadruple bottom line" of equity, resilience, sustainability, and COVID recovery.

## 3. Biodiversity in Peril (6 Items)

Underestimating the Challenges of Avoiding a Ghastly Future (Frontiers of Conservation Science, 13 Jan 2021, 23p), by Corey J. A. Bradshaw, Paul R. Ehrlich, Peter H. Raven, Mathis Wackernagel, and 13 others, issues a stark warning. "Humanity is causing a rapid loss of biodiversity and, with it, Earth's ability to support complex life...Major changes in the biosphere are directly linked to the growth of human systems." The 17 authors review the evidence that "future environmental conditions will be far more dangerous than currently believed," as concerns declining populations of vertebrate species, some 40% of plants considered endangered, and rapidly disappearing insects in many regions. Summarizes future trends in biodiversity decline, climate disruption, and human consumption and population growth, demonstrating "the near certainty that these problems will worsen over coming decades." Suggested solutions abound, but the current scale of implementation "does not match the relentless progression of biodiversity loss." This fact is difficult to grasp for even well-informed experts, and no one seems prepared to handle the predicted disasters and stresses to human health and well-being. "The science underlying these issues is strong, but awareness is weak."

The Security Threat That Binds Us: The Unraveling of Ecological and Natural Security and What the United States Can Do About It (Feb 2021, 130p), from The Converging Risks Lab of the Council on Strategic Risks, describes global ecological disruption as the most underappreciated security threat of the 21st century. Earth is entering a sixth mass extinction period, with degraded ecosystem services, growing pandemic risk, and environmental crime amplifying ecological stress and social instability. National security seeks to protect citizens from malign nations. *Natural* security, or ecological security, seeks to protect water, food, wildlife, forests, and fisheries. International conservation strengthens national security, and policy proposals include strengthening international alliances and mechanisms to reverse or reduce ecological disruption, reducing pandemic risk at the point of origin, an ecological security research agenda, and engaging the public on these issues.

Insect Decline in the Anthropocene: Death by a Thousand Cuts (Proceedings of the National Academy of Sciences, 118:2, 11 Jan 2021, 10p) summarizes 11 papers presented at the Nov 2019 annual meeting of the Entomological Society of America on declining insect

populations. Conservation efforts have historically focused on protecting rare and charismatic species. The "insect apocalypse" is a different challenge, with many reports on sweeping declines of formerly abundant insects providing ecosystem services such as pollination, biological control of weeds and disease vectors, decomposition of leaves and wood, and removal of dung and carrion. Not all insects are declining, but some are decreasing at the rate of 1-2% per year, due to land-use change, introduced species, nitrification, pollution, climate change, habitat loss, pesticides, fire, droughts, and urbanization. [NOTE: This PNAS Special Feature is probably the definitive scientific account of insect decline.]

Living Planet Report 2020: Bending the Curve of Biodiversity Loss (Sept 2020, 159p). The World Wildlife Fund seeks "to stop the degradation of the planet's natural environment by conserving biodiversity, and reducing pollution and wasteful consumption. This report, produced in collaboration with the Zoological Society of London, warns of serious declines in species populations, and that "decades of words and warnings" have not changed society's business-as-usual trajectory—until now. "Perhaps the COVID-19 pandemic will spur us on...to revolutionize how we take care of our home." The WWF Bending the Curve Initiative is proposed to deal with "biodiversity on the brink." The most important direct driver of biodiversity loss has been land-use change, primarily conversion of pristine forests into agriculture, driven largely by a doubling of human population since 1970. Climate change has not been the most important driver to date, but is projected to become as important as other drivers in coming decades—or more so.

Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies (Feb 2021, 168p) from the <u>UN Environment Program</u> begins with a statement by the UN Secretary-General that humanity is waging a suicidal war on nature, and "making peace with nature is the defining task of the coming decades." This report makes a scientific case that loss of biodiversity and ecosystem integrity, along with climate change and pollution, will undermine efforts on 80% of SDG targets. Chapters describe the many ways that society is failing to limit environmental damage, transformative systemic change as prerequisite to a sustainable future, leverage points for transformative change, overcoming barriers from inertia and vested interests, the need to address environmental emergencies together, scaled-up and accelerated actions, transforming land management to meet human needs, science-based management to reduce adverse effects of chemicals, transforming economic and financial systems, transforming food and water systems to become equitable and resilient, access to clean energy for all, promoting peaceful societies as key to reducing environmental degradation, and all actors having a part to play in this transformation.

Strengthening Synergies: How Action to Achieve Post-2020 Global Biodiversity Conservation Targets Can Contribute to Mitigating Climate Change (Nov 2020, 11p), from the UN Environment Program and the World Conservation Monitoring Centre (Cambridge UK), notes that "the climate and biodiversity crises are fundamentally connected and more integrated approaches are needed." Identifies the regions where global action via Nature-based Solutions will deliver the most to achieve conservation goals and mitigate climate change: the Amazon rainforest, the Congo Basin, and Mesoamerica. Indigenous peoples, local communities, and other stakeholders are crucial for effective NbS.

## 4. Climate Concerns (7 Items)

World Climate and Security Report 2020 (Feb 2020, 151p) is published by The Center for Climate and Security. It convened a 12-member Expert Group of the International Military Council on Climate and Security, which considered climate-related risks in seven world regions, and a security risk perception survey of 56 other experts worldwide, 1 year, 10 years, and 20 years from 2020. "Climate change not only acts as a threat multiplier, but can have direct implications for military operations. Climate change-exacerbated water security is already a significant driver of instability, and will pose a significant or higher risk to global security by 2030. All regions are facing more natural disasters, food insecurity, and forced displacement." Climate mitigation and adaptation efforts are increasingly urgent, but rising authoritarianism and nationalism are hampering needed cooperation.

Also from The Center for Climate and Security is A Security Threat Assessment of Global Climate Change: How Likely Warming Scenarios Indicate a Catastrophic Security Future (Feb 2020, 84p). The National Security, Military, and Intelligence Panel analyzed two warming scenarios: Near Term (1-2°C by 2050) and Medium-Long Term (2-4°C). The former poses High to Very High security threats; the latter poses a Very High to Catastrophic threat to national and global security. "At all levels of warming, climate change will pose significant and evolving threat to global security environments, infrastructure, institutions, and US military missions in all geographic areas. These threats could come about rapidly."

The 2020 Report of The Lancet Countdown on Health and Climate Change: Responding to Converging Crises (The Lancet. Vol 396, 2 Dec 2020, 42p), is signed by c.80 authors from 35 academic institutions and UN agencies. It warns that "the changing climate has already produced considerable shifts in the underlying social and environmental determinants of health at the global level," and that "the 2020 indicators present the most worrying outlook reported since the Countdown began in 2016." Among the 43 indicators: increase in heat-related mortality and its monetized cost, potential labor capacity lost, increased floods and droughts, threats to global food security, air pollution deaths from coal-fired power, growing emissions from livestock, growing climate suitability for infectious disease, more people exposed to risk of wildfire, rising migration and displacement, and growing inequality due to climate change and COVID. Accelerated efforts are needed in the next 5 years to tackle climate change, as well as COVID, and measures should be closely linked. "Considerable financial, social, and political investment will be required to protect populations."

Arctic Report Card 2020 (Dec 2020, 141p) is the 15<sup>th</sup> annual edition from NOAA, the National Oceanic and Atmospheric Administration. It reviews surface air and sea surface temperatures, terrestrial snow cover, the Greenland ice sheet, glaciers and ice sheets outside of Greenland (a continued trend of significant ice loss), sea ice, the response of marine algae to climate warming and sea ice decline, tundra greenness, coastal permafrost erosion, and wildland fire in high northern latitudes. In sum, "The sustained transformation to a warmer, less frozen and biologically changed Arctic remains clear."

Emissions Gap Report 2020 (Dec 2020, 101p) from the <u>UN Environment Program</u> warns that greenhouse gas emissions hit a new high in 2019, and 2020 is on course to be the warmest on record. The pandemic-linked economic slowdown is expected to cause a drop of up to 7% in 2020 emissions, but "this dip will have an insignificant impact on the Paris Agreement goal of limiting global warming to well below 2°C." The expected 2020 fall in emissions translates to a 0.01°C reduction of global warming by 2050. "Overall, we are heading for a world that is 3.2°C warmer by the end of this century, even with full implementation of unconditional nationally determined contributions under the Paris agreement." However, a green pandemic recovery could shave up to 25% off the emissions we would expect to see in 2030. Measures to deliver these cuts include support for zero-emissions technologies and infrastructure, reducing fossil fuel subsidies, backing nature-based solutions such as large-scale landscape restoration and reforestation, lower emissions for shipping and aviation, and encouraging low-carbon lifestyles.

Gauging Economic Consensus on Climate Change (March 2021, 51p). The Institute for Policy Integrity at the New York University School of Law conducted a large-sample global survey of economists who have published climate-related research in the highest-ranked economic journals, with 738 participants (a 34% rate of response). 74% said that "immediate and drastic action is necessary," while <1% believed that climate change is not a serious problem. Nearly 80% of respondents increased their level of concern about climate over the past five years, and most viewed the climate challenge as "rapidly escalating." 89% believe that climate change will exacerbate income inequality between countries, and some 70% see this happening within countries. If the current warming trend continues, economic damages from climate change will reach \$1.7 trillion/year by 2025 and some \$30 trillion/year by 2075. 66% view the benefits of reaching net-zero emissions by 2050 as likely to outweigh the costs, while only 12% disagreed. Rapid expansion of clean energy technologies is expected, resulting in >50% of the global energy mix in 2050, up from some 10% today.

Funding Our Future: Five Pillars for Advancing Rights-Based Climate Finance (March 2021, 40p), one of many reports from the Center for International Environmental Law, states that "confronting climate change may be the costliest challenge the world has ever faced. Responding to an accelerating global crisis of the scale, scope, severity, and urgency of the climate emergency requires an unprecedented mobilization of resources." To advance human rights, climate finance must be 1) Ambitious, commensurate with the scale and scope of the crisis; 2) Equitable, prioritizing fund distribution to the most vulnerable countries and communities; 3) Fair, with financing terms not adding to recipient country debt burdens; 4) Effective, with funded activities delivering real emissions reductions and remediation; and 5) Rights-based, with projects respecting and promoting human rights throughout the project lifecycle. Also, the immense public funds committed to economic recovery from COVID-19 present an opportunity to invest in an environmentally sound direction.

# 5. Proposals: Inequality, Land Use, Plastic Pollution, Capitalism (7 Items)

The Inequality Virus: Bringing Together a World Torn Apart by Coronavirus Through a Fair, Just, and Sustainable Economy (Jan 2021, 82p). Notable for 420 footnotes,

this <u>Oxfam</u> Briefing Paper warns that the pandemic may lead to increased inequality in almost every country at once. "The virus has exposed, fed off, and increased existing inequalities of wealth, gender, and race." Over 2 million people have died, and hundreds of millions are being forced into poverty, while many of the richest individuals and corporations are thriving. Transformative policies that seemed unthinkable before the crisis are now seen as possible, and various surveys show strong public support in many countries. Five steps toward *A Better World* are described: 1) One that is profoundly more equal and measures what matters (GDP as a metric fails to provide guidance); 2) One where human economies care for people (where governments invest in free quality public services and cradle to grave social protection for everyone; 3) One with income security and dignified working conditions, living wages for all, and increased public investments in smallholder farmers (see below); 4) One where the richest people pay their fair share of taxes, through transparent and accountable revenue systems; 5) A world of climate safety, radically breaking from business as usual, where the rights of indigenous people and local communities are protected, and fossil fuel subsidies ended.

"Of some 275 million tons of plastic waste produced annually, up to 12 million tons leak into oceans, wreaking havoc on livelihoods and ecosystems. This crisis is transboundary, thus requiring a concerted global response to adequately address it."

Future Choices: Charting an Equitable Exit from the COVID-19 Pandemic (March 2021, 54p). Human Rights Watch regrets that the severity of the pandemic enabled some governments to use public health emergency measures to grab power and abuse rights, with systematic neglect of some minority populations. To prevent further human rights backsliding, governments should ensure universal and equitable vaccine access, protect the rights of healthcare workers, ensure access to food and water when quarantines or lockdowns are imposed, combat the spread of misinformation on the pandemic, protect older people and people with disabilities, decrease the risk of COVID-19 spread in congregate settings, avoid austerity measures harmful to human rights, provide support for a moratorium on evictions for inability to pay, and invest in quality services for all.

Uneven Ground: Land Inequality at the Heart of Unequal Societies (Nov 2020 72p; 16p Executive Summary) presents research findings from the Land Inequality Initiative of the International Land Coalition based in Rome. "In most countries, land inequality is growing." New measures and analysis in this synthesis report show that it is significantly higher than previously reported, threatening livelihoods of some 2.5 billion people in smallholder agriculture. Family farmers, indigenous peoples, rural women, and youth are being squeezed into ever smaller parcels of land or forced off the land, while more land is concentrated in corporate agribusiness and distant investors. "Climate change is both a cause and consequence of land inequality, reducing agricultural productivity and forcing many

off the land altogether." More sustainable practices of small-scale farmers and indigenous peoples are threatened by evictions, deforestation, biodiversity loss, and water scarcity. A range of policies is needed, including redistributive programs, land market regulatory reforms, taxation to reduce speculation, securing women's land rights, and enforcing accountability measures to compel due diligence and human rights standards.

Pathways to Sustainable Land-Use and Food Systems: 2020 Report (Dec 2020, 715p; 13p Executive Summary). The second report of the FABLE Consortium is part of the Food and Land Use Coalition. FABLE (Food, Agriculture, Biodiversity, Land-Use, and Energy) is led by IIASA and SDSN, working with EAT, PIK, and others. Teams from 20 countries (including Brazil, Canada, China, India, Russia, the UK and the US) present national pathways for sustainability to meet mid-century objectives on food security, healthy diets, greenhouse gas emission, biodiversity, forest conservation, and freshwater use, consistent with the UN Sustainable Development Goals and the objectives of the Paris climate agreement. They ensure consistent trade flows and can inform long-term climate strategies toward netzero greenhouse gas emissions and biodiversity. The pathways have been "significantly improved" from the initial 2019 report. Country reports occupy >600 pages of this report. Next steps for the FABLE Consortium include welcoming new country teams, partnering with the Food Systems Economics Commission, and working with interested governments to support integrated strategies.

Convention on Plastic Pollution: Toward a New Global Agreement (June 2020, 12p), from the Environmental Investigation Agency and the Center for International Environmental Law, views plastic pollution as "one of the greatest anthropogenic threats our planet faces." Of some 275 million tons of plastic waste produced annually, up to 12 million tons leak into oceans, wreaking havoc on livelihoods and ecosystems. This crisis is transboundary, thus requiring a concerted global response to adequately address it. To prevent plastic pollution in the marine and other environments, it is increasingly clear that a dedicated instrument is needed, a Convention on Plastic Pollution addressing the full lifecycle of plastics, from production and design to waste prevention and management. Three pillars are required: 1) Monitoring and Reporting: developing a harmonized system that includes standardized definitions on the presence of plastic pollution and progress toward a circular economy; 2) Prevention: to eliminate long-term discharges of plastic into land, sea, and air with national action plans, especially concerning microplastics; 3) Coordination: with other international and regional instruments that regulate sea-based sources, the plastic waste trade, chemicals and additives, biodiversity conservation, agriculture, financial resources, assessment panels, and compliance mechanisms.

The New Plastics Economy Global Commitment 2020 (2020, 75p). In contrast to the top-down Convention proposed above (also valuable), this second annual Progress Report from the Ellen MacArthur Foundation and the UN Environment Program celebrates >500 businesses, governments, and NGOs that have come together behind a common vision of a circular economy for plastics. These organizations, accounting for >20% of the plastic packaging market, have set ambitious 2025 targets to realize that vision. "Plastic pollution is clearly a threat to planetary and human health," however, and much more must be done

and at greater speed to achieve the targets. Progress across the signatory group is examined as regards elimination, reuse models, recycling and composting in practice, decoupling from consumption, and transparency. Credibility and transparency are ensured by a clear minimum level of ambition for signatories, common definitions for all commitments, publication of commitments, and annual reporting on progress. The minimum ambition "will become increasingly ambitious over time to ensure that the Global Commitment continues to drive true leadership." Along with the Plastic Pacts network (which now covers 20 countries) and the Global Tourism Plastics Initiative, >1000 organizations are now united behind the vision of a circular plastics economy.

Reinventing Capitalism: A Transformation Agenda (Nov 2020, 33p). In 2010, the World Business Council for Sustainable Development released Vision 2050, a pathway to a world in which 9 billion people are able to live well, within planetary boundaries. Revisited 10 years on, this "Vision 2050 Issue Brief" seeks to align the pathway with the Sustainable Development Goals and to prioritize the critical actions that business can take to unlock necessary transformations. It is increasingly clear that doing so requires a shift in the outcomes that our market-based systems incentivize, reorienting capitalism to pursue true value, preserving and enhancing natural, social, and financial capital. "The COVID-19 pandemic has made the reinvention of capitalism even more important," to ensure that sustainable development is prioritized in recovery strategies. Five features of a reinvented capitalism: stakeholder concern, impact internalizing, long-term perspectives, regenerative, and accountable. Some priorities for business: reporting on ESG risks and impacts, ensuring interests of all stakeholders, paying fair taxes in a transparent way, shifting taxation from "goods" such as employment to "bads" such as pollution, and rewarding true value creation. [NOTE: Also see "Greening Capitalism, Quietly: Seven Types of Organizations Driving the Necessary Revolution," Cadmus, 3:2, 2017.]

#### 6. Conclusion

More reports published in the past 12 months or so could be added here, but the 25 "minnows" described above can suffice to illustrate the wide variety of important science-based reports, both descriptive and normative, that are ignored by the NIC Global Trends report, especially as concerns the biodiversity crisis and the "insect apocalypse" mentioned in PNAS. The NIC report devotes a single skimpy paragraph to loss of biodiversity (p.36), attributing it only to climate change, rather than equally important pollution, changes in land use, population growth, environmental crime, etc.

The UNOG/WAAS report on Global Leadership for the 21st Century mentions the importance of breaking down "silos" among academic disciplines, stakeholders, and UN agencies. This "modest report on global reports" is a small step in doing so, but much more needs to be done. Individual writers should cite more of these reports, which are often leading-edge exemplars of multi-disciplinary and multi-author thinking. UN agencies should reference their major reports and learn from each other, and refer more often to major reports from NGOs, which in turn should cite UN reports. All of these reports are free online—only a couple of clicks away—and most are handsomely produced. But far more attention should

be paid to publicizing them, recognizing the fierce competition for attention in an age of infoglut.

Most importantly, NIC hopes that its global trends report "provokes a conversation about our collective future." So why not do so, where the NIC and representatives of several UN agencies and NGOs come together for a serious science-based conversation on security and sustainability in the decades ahead? It could be a major step forward for effective global leadership in our troubled times.

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