

Net Zero & The Natural World

Kübra KOLDEMİR

Argüden Governance Academy
Sustainability Researcher

Richard BETTS

KPMG
Sustainability Director

Dr. Erkin ERİMEZ

ARGE Consulting
Partner

In our previous [Blog](#)¹, we discussed how in our modern hectic lifestyle, we often don't have time to take stock and reflect on many things, including the importance and value of the natural world. We also argued that as humans we often think of ourselves as the masters of everything in the natural world. We explored how in fact the very reason for the Covid-19 pandemic may be symptomatic of our prevailing exploitative culture as humans.

These days, we increasingly find ourselves in situations that remind us how our world is highly interconnected and how we all depend on the natural world for everything. Through our Covid-19 experience, we may now have more reason to contemplate how through our exploitation of the natural world we are not only currently endangering the survival of many species, but also risking our prosperity and ultimately our survival.

In this article, we wish to highlight the interconnections between climate change and the natural world and promote the idea that we should not look at issues in isolation but understand how in our highly interconnected world issues such as climate change and biodiversity are actually heavily interlinked. Hence, tackling one of these issues can help us tackle other key sustainability issues we are faced with. The interconnections also underline the importance of taking an integrated thinking approach.

THREAT FROM GLOBAL WARMING

The scientific literature makes clear that our planet is warming faster than at any time in its history. This represents huge risks to all species, including for many over a short-term time-frame. Indeed, through rampant wildlife poaching, deforestation, environmental degradation and global warming, amongst other risks, an influential recent scientific study from IPBES indicated that 1 million species are now threatened with extinction². Natural systems such as rainforests are complex systems that have evolved over a very long time. All species fulfill a role in the system. Hence, the loss of species also results in a reduction of system connectivity. As a result, the system becomes less able to function properly. This then reduces the ability of our natural systems such as forests to deal with global warming as they become less able to continue to soak up our carbon emissions.

In the past too, species had evolved over time based on changing environment. However, historically this change used to happen very slowly – and now we're changing the planet's climate in just a few decades. Due to the rapidity of the temperature changes, species have to adapt to new climate conditions. One of the ways many species (including animals and plants) can cope with these temperature changes is by migrating. While this may be feasible for some highly

¹ <https://www.argudenacademy.org/en/governance-files/value-of-nature-cats-of-istanbul>

² Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) The global assessment report on Biodiversity and Ecosystem Services, 2019: https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf

mobile species such as insects or fish it will not be possible for many slow-moving animals or flora.

Environmental degradation caused by humans often has many unintended consequences. It can contribute to the decline of apex predators such as tigers and lions as by reducing and impoverishing their habitat, there is less prey available for them. As an unintended consequence in this example, the habitat is less able to function properly and hence more vulnerable to both further biodiversity loss and global warming. In addition, the loss of apex predators can also lead to an increase in the population of ruminants such as deer due to the absence of predators. Their increase can often lead to further environmental degradation as, for example, forests are prevented from regenerating effectively as many saplings are eaten or damaged by an increased number of ruminants. As a further result, the impeded ability of natural ecosystems to regenerate also means that they are less able to offer effective protection against global warming. As this example shows, we should not only consider an issue such as climate change in isolation but rather we should take a system's approach and also understand the dependencies and impacts on nature.

THREAT FROM WILDLIFE TRADE

Another major threat to wildlife is posed by a rampant illegal wildlife trade. Some examples of illegal wildlife trade are well known, such as poaching of elephants for their ivory and tigers for their skins and bones or to keep them in captivity as pets.

Taking tigers as an example for wildlife trade of exotic animals, poaching is a major threat to the remaining wild tigers that are estimated as numbering only between 3,000-4,000 globally.

Despite legal protection being afforded to species such as tigers under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)³, there are many limitations at present including around enforceability and resourcing.

In many countries, including the US, EU and UK, private individuals can still keep tigers. Many governments including the U.S. lack a central

accountable agency to detect tigers held by private owners and cannot tell their location, when they are sold or traded, or what happens to their parts when they die. With the current regulation of tigers, it is not easy to track these animals. Captive tigers are a key issue in the United States. It is an eye-opening fact that there are around 5,000 captive tigers in the United States compared to the estimated 3,000-4,000 remaining in the wild⁴.

NET ZERO COMMITMENT INITIATIVE

Global context:

Recently there have been many major announcements regarding net zero commitments from countries and companies and momentum is building rapidly. An important way that countries and companies can reach net zero is to help protect and restore eco-systems such as forests as this helps lock in carbon and by soaking up a significant proportion of anthropogenic emissions. It will also help wildlife as the restored larger habitats can support more prey and hence more predators and help to restore balance in the natural world as well.

At present, major issues such as deforestation, environmental degradation and wildlife trafficking are all exacerbating the looming climate crisis as they are reducing the effectiveness of these systems in being able to contribute to solutions around climate mitigation and adaptation. In short, solutions for the protection and restoration of the environment need to be implemented together with robust legislation to reduce or eliminate wildlife trafficking.

Some of the important initiatives and their implications for the fight against climate change are outlined below.

Science Based Targets

An important initiative is the Science Based Targets, which is a joint initiative of CDP, the UN Global Compact (UNGC), the World Resources Institute (WRI) and WWF. Initially the goal was aligned with the 2015 Paris Agreement whereby world governments committed to limiting global temperature rise to well-

³ <https://www.nationalgeographic.com/animals/reference/convention-on-international-trade-in-endangered-species/>

⁴ <https://www.worldwildlife.org/magazine/issues/winter-2016/articles/captive-tigers-in-the-us#>

below 2°C above pre-industrial levels and to set decarbonization targets accordingly. However, in 2018, based on the latest climate science the Intergovernmental Panel on Climate Change (IPCC) warned that we must be more ambitious, and that global warming must not exceed 1.5°C if the world is to avoid the catastrophic impacts of climate change⁵.

As a result, the Science Based Targets launched a more ambitious target based on a 1.5°C decarbonization pathway and is encouraging all companies to align with this more ambitious goal. Indeed, a growing number of leading companies have now committed to reaching net zero much earlier within the next 10 years. In short, companies and countries need to have a net zero decarbonization strategy that is aligned with the latest peer-reviewed climate science. Company Boards have an important responsibility and role in adapting to and implementing science-based targets. Boards should review and approve material issues for the company. The risk management plans and approaches need to be reviewed and approved by the board as well. Such measures need to be considered for a period of time longer than the term of management. Another issue that the board needs to consider is the impact created by actions in addition to the short-term outcomes.

EU:

This year the EU enshrined its climate neutrality target into law through its European Climate Law as part of the EU Green Deal. The EU target is in line with the Paris Agreement objective to keep the global temperature increase to well below 2°C and pursue efforts to keep it to no more than 1.5°C. In addition, in September this year, the EU increased its 2030 decarbonization target from 40% to at least 55% reduction below 1990 levels in order to meet the net zero by 2050 target it adopted in 2019. The EU has also made climate action one of its three main Covid-19 response priorities, meaning that at least 30% of its multi-annual budget and recovery fund is to be spent

on achieving its increased 2030 emission reduction targets and its climate neutrality goal for 2050.

UK:

In June 2019, the UK became the first nation state in the world to pass legislation requiring the government to reduce the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050. In November 2020, the UK Prime Minister, Boris Johnson, announced an ambitious decarbonization plan 'The Ten Point Plan' to kickstart a Green Industrial Revolution and green recovery from Covid.

Asia:

In September 2020, in a significant announcement for progress on tackling climate change, the Chinese President, announced to the UN general assembly that China would aim to become carbon neutral before 2060. China is currently responsible for 28% of the world's greenhouse gas emissions, more than the United States and the European Union combined. Though China is a huge polluter, it also leads the world in the clean technologies that could make net zero decarbonization feasible⁶. In October, Japan, the world's fifth biggest emitter of carbon dioxide, also announced it would reduce its carbon emissions to net zero by 2050⁷. South Korea, currently the 8th highest emitter of carbon emissions in the world, with 36 GW of coal power capacity and 1 of the 3 biggest public financiers of overseas coal projects globally, also recently announced its net zero target to 2050. There is also now a bill that would end financing for overseas coal projects though this is yet to be approved⁸.

United States:

Though the result has yet to be formally certified, it currently seems that Joe Biden will be the next US President in January next year. This is significant for tackling climate change as Biden has promised to rejoin the Paris Agreement as soon as he takes over and to commit the US to a net zero 2050 goal and kickstart a USD c. 2 trillion net zero program. He has also vowed to use all of America's influence to exert

⁵ <https://www.ipcc.ch/sr15/>

⁶ <https://www.theguardian.com/commentisfree/2020/oct/05/china-plan-net-zero-emissions-2060-clean-technology>

⁷ <https://www.climatechangenews.com/2020/10/26/japan-net-zero-emissions-pledge-puts-coal-spotlight/>

⁸ <https://www.climatechangenews.com/2020/10/28/south-korea-formally-commits-cutting-emissions-net-zero-2050/>

pressure on other countries to rapidly decarbonize. Indeed in an early significant announcement towards the end of November 2020, Biden announced he was appointing [John Kerry](#) as his special presidential envoy for climate and that for the first time this would be a Cabinet-level position and on the US National Security Council. This new announcement underlines the commitment the new US administration can be expected to have to tackling the [global climate crisis](#)⁹. Hence, it is likely that the net zero momentum will intensify and that other countries will be encouraged to rapidly follow suit.

CONCLUSION

In a highly interconnected planetary system, systems-based solutions are needed for tackling both the climate crisis and the biodiversity crisis, which are issues of overarching significance to us all.

In terms of implications for business, a key recommendation is corporations should assign board responsibility for overseeing the company's response to systemic risks related to the environment. A company should also ensure all its board members have a basic understanding of climate change and the natural world as well as how they are connected. Corporations need to be actively contributing to the net zero transition and solutions for dealing with the key issues facing us all.

Board members indeed need to have the right skills to provide guidance and oversight to the sustainability plans of the corporation. The Board needs to contain members who are familiar with the rapidly evolving sustainability standards, issues and guidance to adequately evaluate different dimensions, perspectives and risks of sustainability issues.¹⁰

According to an impact research called "Sustainability Governance Scorecard ©" by Argüden Governance Academy, which evaluates ESG-compliant corporations in 7 countries across 10 sectors through a governance lens, only 11% of GSLs (Global

Sustainability Leaders) identified sustainability as a required board member skill.¹¹

Finally, appointing a sustainability committee and/or a Chief Sustainability Officer (CSO) with specific responsibility for major sustainability issues such as climate change could strengthen the relationship between board and management in defining an effective road map to dealing with them. It would also indicate to key stakeholder groups including investors, lenders, insurers and regulators that the company is committed and proactive in terms of its sustainability response.¹²

⁹ <https://edition.cnn.com/2020/11/23/politics/john-kerry-biden-climate-envoy/index.html>

¹⁰ <https://www.argudenacademy.org/en/publications/sustainability-governance-scorecard>

¹¹ <https://www.argudenacademy.org/en/publications/sustainability-governance-scorecard>

¹² <https://home.kpmg/xx/en/home/insights/2020/11/towards-net-zero.html>