

Value of Nature & Cats of İstanbul

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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. In addition, we have tended to take the many free services the natural world provides us for granted. Genetically, we have a deeply engrained short-term focus and just one manifestation of this can be that we often assume that our world will always stay the same. Clearly, whenever we do find time to reflect on our planet's history, we can see this is a misplaced assumption. However, when we do not reflect on the importance of the natural world, our lives become more impoverished.

Culturally, we often seem to think of the very concept of the environment as being marginal to our civilization and almost as if without relevance in our modern hectic lives. The reasons can be many: for example, the 'sophistication' of our civilization or our technological advances. The world is rapidly urbanizing. Many of us now live far from the countryside and in our city lives. We spend most of our time in sterilized apartments, offices and shopping centers. Consequently, in many ways, we have lost our direct connection with the natural world.

As we go on with our daily routines, at some point something like Covid-19 comes along and wakes us from our complacency. Since Covid-19 first struck, many studies have emerged that highlight the connections between the root cause of zoonotic diseases and the degradation of the natural world. But how did we really get to the current situation where people everywhere have been deeply affected by the Covid-19 pandemic? At one level the reason can be found in scientific explanations about how

unsustainable practices greatly increase the risk of infectious diseases. For example, through rampant environmental degradation we are increasingly removing the natural buffers. Furthermore, by removing exotic species from their natural habitats, we are also increasing the risk that we will be exposed to direct contact with dangerous pathogens. One such example is wildlife trade markets, like the one in Wuhan China, where it seems the Covid-19 virus first emerged.

On a deeper level, there is an even more fundamental question we should ask ourselves about why Covid-19 has emerged. Why do we as humans often think of ourselves as the masters of the natural world? And why - more specifically - do we think we own all animals? Our human mindset unfortunately functions in a way that we treat animals, including wildlife, as if they were our "things" which we rule. In fact, we could reasonably argue that the very fact that wildlife trade markets even exist is symptomatic of our prevailing exploitative culture as humans. Through our prevailing linear economic model, the whole world and all of its species and resources are seen as being for humans to consume and exploit as we see fit.

Until relatively recently, we could get away with this 'frontier' mentality as there were still new areas that could be colonized and cleared, for example, for farming. But due to the rapid increase in recent decades in the global population, we are increasingly running out of key resources. We are driving many species to the brink of extinction. Consequently, 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. And therefore, through our Covid-19 experience, we can now see more clearly where we are headed unless we collectively change course.

Arguably another way we have a tendency to dominate the natural world is our urge as humans to make our environment “perfect” and “orderly”. For instance, this is demonstrated by our need to have well-organized gardens with tidy flowerbeds and cut lawns. This links to our misconception, borne through our short-term focus, where we assume everything is constant and always stays the same. However, in reality the natural world, as well as containing a lot of order, also has much randomness. And there is a beauty and productivity derived from that randomness. Nature consists not just of species acting in isolation but of the ever-shifting ebb and flow in their relative fortunes with each other and with their environment. There is a wide range of symbiotic relationships such as the interconnections between predators and prey or pollinators and flowering plants. Therefore, by trying to bring order to chaos we can impede nature from flourishing as it is forced unnaturally to stay within certain bounds.

Maybe it would help if we stopped seeing the natural world as a rival and its preservation as a cost but accept nature for what it really is:

- We are not nature’s rival nor its master. As humans, we co-habit a highly interconnected world along with all of the other species.
- Nature is a provider of many free and economically vital services: And why? Because nature provides us with many essential services and resources that include, to give just a few examples:
 - 1) our most cost- effective carbon capture and storage system,
 - 2) a source of lifesaving medicines,
 - 3) our best flood protection system,
 - 4) the source of our food and drink and
 - 5) provider of the oxygen we breathe.

Our home is indivisibly linked to the natural world and ecology is the sine qua non for the economy. Nature is, in fact, essential to the continuation of our economy and our way of life. Hence by preserving and restoring nature we will not be abandoning civilization but enhancing it.

NATURE PROVIDING HUMANITY A FREE SERVICE

Forests are essential in the fight against climate change, as they essentially act as natural ‘carbon capture and storage units in absorbing billions of tons of GHG emissions each year. Indeed, natural assets like forests are arguably the most cost-effective solutions. In addition, rainforests provide us with an estimated 20% of the oxygen we breathe. In essence, they function as ‘ancient libraries’ that contain the accumulated knowledge of the earth through millions of years of evolutionary history. Unquestionably, this extensive ‘database’ of knowledge is the source of extensive financial value to the global economy. It is also the main source of value for industries such as the pharmaceutical industry.

Like forests, mangroves and salt marshes also store billions of tons of carbon. They are also essential in flood protection. For example, in 2005, Hurricane Katrina caused an estimated USD 125 billion of economic damage in Louisiana and Mississippi making it the costliest hurricane in US history¹. Studies² found that Katrina reached land in areas where much of the original coastal vegetation including salt marshes and freshwater swamp forests had been removed. However, another Category 5 hurricane, Rita which occurred around the same time, and is still the most intense hurricane on record in the Gulf of Mexico, caused much less damage. The coastal wetlands there were still largely in place and hence provided a natural buffer against the hurricane. Consequently, once the storm reached the land it had already lost much of its potency. Estimated direct deaths attributable to Katrina range between 1,200 and 1,800 and 7 for Rita.

¹ <https://www.nhc.noaa.gov/news/UpdatedCostliest.pdf>

² Juniper (2013): What has Nature ever done for us?

PUTTING A VALUE ON THE SERVICES PROVIDED BY THE NATURAL WORLD

Firstly, when we think of the value of nature, we need to recognize that there are clearly different kinds of value. At one level, the natural world clearly has great intrinsic value as there is much that is inherently beautiful, but which may be immeasurable in purely economic terms. However, in addition, the natural world provides us all with many free services and many of these aspects can be valued. Arguably, if we can place an economic value on more aspects from the natural world, we will understand and appreciate the enormous debt we owe to the natural world. As countries, companies and individuals we will then take better care of these 'green' assets and 'green infrastructure'.

Often, as we do not pay for many benefits provided by nature, we are also not in the habit of pricing them. Cities, for example, typically do not put a monetary value on the natural water filtration systems provided by the trees and other vegetation in their watersheds.

In addition, it is often not straightforward to measure the value provided by nature. There are many reasons for this including issues such as how biodiversity can vary enormously between locations. Hence, what would be relevant guidance to report in one location may be irrelevant even for a nearby location due to a completely different micro-habitat. In addition, while many corporations can calculate their greenhouse gas emissions themselves, for example, through direct measurement, or through estimating from their energy consumption records, information pertaining to biodiversity tends to lie not within companies but externally in environmental data sets held by universities, NGOs or governments. Hence, as so often in sustainability, there is the need for effective multi-stakeholder collaboration to measure, manage and drive improvement in areas connected to biodiversity.

This trend is starting to change with many studies to value natural assets.

For instance, a recent report from the World Economic Forum (WEF 2020) mentions how humanity had already wiped out 83% of wild mammals and half of all plants. WEF also estimates USD 44 trillion of economic value generation, more than 50% of global GDP, is moderately or highly dependent on nature³.

Another example of nature's value is the world's oceans, where micro-organisms generate an estimated 50 to 80% of the oxygen we breathe. Similarly, since the start of the Industrial Revolution around 30% of the CO₂ we have put into the atmosphere has been absorbed by marine organisms through the process of photosynthesis. One pioneering study estimated the economic value of the world's oceans at USD trillion p.a.⁴.

BEAUTY IN THE RANDOMNESS OF THE NATURAL WORLD

The natural world contains both order and randomness. To give an example from Istanbul, any visitor will notice how many stray animals, especially cats, roam the streets. These animals, rather than being pets, co-exist with people and are supported collectively by Istanbul's city dwellers.

The number of stray animals in Istanbul has increased since an animal protection law, introduced in 2004, forced municipalities to take care of stray animals. There are now an estimated 130,000 dogs and 165,000 cats on Istanbul's streets. Prior to this, there were extermination policies as there still are in cities in many other countries. Since the law change, municipalities have followed a different approach of reducing the population of stray animals through vaccination and sterilization. As a result, the municipality now cares for far more animals: 73,608 animals in 2018 compared to only 2,470 back in 2004. And in spite of Istanbul's large cat population, there has not been a single case of rabies in Istanbul since 2016⁵.

While there can be many downsides linked to the presence of so many feral animals, including public health concerns and negative impacts on native

³ <https://www.weforum.org/press/2020/01/half-of-world-s-gdp-moderately-or-highly-dependent-on-nature-says-new-report/>

⁴ Costanza et al (1997) The value of the world's ecosystem services and natural capital.

<https://www.nature.com/articles/387253a0>

⁵ <https://www.france24.com/en/20190218-istanbul-vets-make-citys-stray-animals-feel-home>

species, the practice also shows how humans can co-exist humanely with some species.

IN CONCLUSION

As mentioned at the start, in our modern hectic lifestyle, we often don't find time to reflect on many things, including the importance and value of the natural world. The natural world is immeasurably beautiful by itself and the source of all economic value. When we do not reflect on the importance of the natural world, our lives become more impoverished. It is time for us all to rise to the challenge and help protect and restore our world.

As Istanbul's practice related to street animals shows, collectively, humans can be humane and compassionate to nature and to animals, and this can be facilitated by society and by government. Without necessarily arguing if more upsides or downsides, our conclusion is the following: One way to stop the emergence of other viruses such as Covid-19 in the future, is to appreciate more our nature and to feel more gratitude, respect and compassion towards the animals. In conclusion, if we start our approach with this mindset, we can start to reduce exploitive practices towards nature. For example, we can ensure that an illegal wildlife market – such as the one in Wuhan, China- does not even exist in first place.

SUPPLEMENTARY SECTION

UPDATES FROM GLOBAL ORGANIZATIONS AND EXCHANGES ON THE VALUE OF THE NATURAL WORLD

In recent years, in growing recognition of the critical importance of the natural world, there have been many important initiatives that have focused in full or in part on biodiversity. To give just a few examples: UN SDGs 14 and 15 focus on the preservation and restoration of life under water and of terrestrial ecosystems respectively.

However, according to an impact research called "Sustainability Governance Scorecard ©" by Argüden Governance Academy, which evaluates companies through a governance lens, only 19% of leading ESG-compliant global corporations align their overall strategy with SDG 14 (life below water) and only 29%

align with SDG 15 (life on land). The study therefore highlights an urgent need to push for more ESG integration in this area⁶.

More recently, following in the footsteps of the TCFD, that focused on developing a set of climate-related financial disclosures, a taskforce has been assembled to create a global set of financial disclosures for nature 'TNFD'. TNFD is being developed through a partnership between Global Canopy, UNEP FI, UNDP and WWF together with the financial support of the UK France and the Netherlands. The goal is to increase the resilience of the global economy by reducing flows of finance that are negative for nature and people. The initiative also aims to increase finance towards outcomes that are positive, in alignment with the Paris Agreement, the Post 2020 Biodiversity Targets and the Sustainable Development Goals.

One of the most important initiatives on making nature's value visible is TEEB (The Economics of Ecosystem and Biodiversity). This initiative aims to present concepts and state-of-the-art methodologies for economic valuation of biodiversity and ecosystem services, how to value and internalize biodiversity and ecosystem values in policy decisions. Even though the initiative is in infancy that initiative could help to develop an accounting approach which could be aligned to the balance sheet and P/L of the companies to understand the future impact of its operations from sustainability and shareholders' value perspective.

A number of global exchanges are pushing for ESG integration for biodiversity through general policies, guidelines and ratings. B3 guides its listed companies through a sustainability index questionnaire, which also includes biodiversity topics. In a similar fashion, JSE's Responsible Investment Index also includes biodiversity under the broader theme of environment in its ESG ratings. Likewise, in Australia, the Fourth Edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations recognizes that threats to biodiversity can be an environmental risk that requires disclosure and management by listed entities.

⁶ <https://sgscorecard.argudenacademy.org/findings-and-good-practices/guidanceee>

Other global exchanges contribute to the nature by focusing on forestation programs. Colombia Securities Exchange sets a good example to its listed companies by its commitment to a forestation initiative with around 1500 trees, which also helps the corporation to offset its carbon footprint. Likewise, Borsa Istanbul dedicates 2/3 of its corporate land to a green area where 1450 trees have been planted.

NSE Foundation, the corporate social responsibility arm of the National Stock Exchange India (NSE) implements environment sustainability projects in three ecologically fragile districts of India that have some of the lowest human development indicators in the country. The projects focus on a community-led approach to address the issues affecting the ecosystem especially the availability of water for both irrigation and community consumption. Locally available materials are used to improve the resilience of the ecosystem and productivity of the soil and water resources.

In Thailand, SET (Stock Exchange of Thailand) has started engaging its listed companies early into various environmental programs by giving them guidance in their reporting. At the moment, forestation and biodiversity is one of the most popular programs amongst listed companies and there are numerous initiatives including PTT Reforestation Initiative, Thai Conservation Forest Foundation by EGCO Group and Biodiversity and Ecosystem Program by SCG Group.

Thanks to Michael Armao, Mohan Kumar & Gamze Talay for research, editing and design support.

Thanks to Tirtankar Patnaik, Shameela Soobramoney, Nareerat Santhayati, Carlos Barrios, Recep Bildik, Kate Griffiths & Luiza Junqueira for Exchange and Subject Matter insights.
