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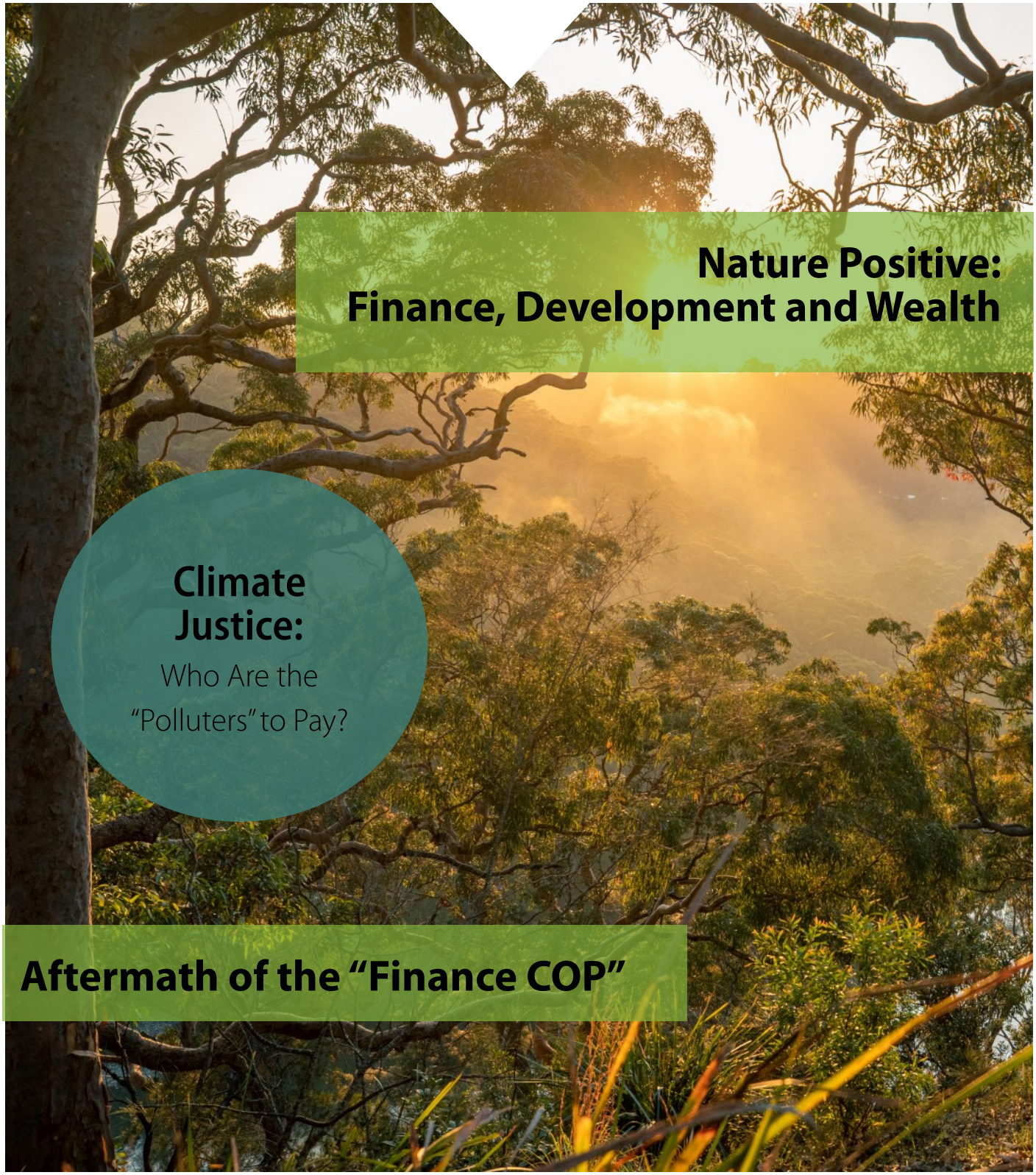

Nature Positive: Finance, Development and Wealth

Climate Justice: Who Are the "Polluters" to Pay?

Aftermath of the "Finance COP"

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under the supervision of TSKB Economic Research

About TSKB Advisory Services

While TSKB supports Turkish private sector investments with its thematic loans and innovative financing products, we continue to create added value for the business world and all of the drivers of development with our sector specific advisory services which we have been offering for 35 years. With our advisory teams consisting of financial advisors, engineers and economists, we guide the companies operating in the sectors driving the Turkish economy in its journey of transformation, development and sustainability. TSKB supports businesses to assess the risks and opportunities with data-based methods associated with environmental, social and governance (ESG) policy and to analyse the public and political expectations.

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Hale and Hearty

Greetings from our 17th issue!

"A little less conversation, a little more action" is a great stance, isn't it? Wearing this practical hat, one can perhaps only add the undiscussable need for reaping the fruits of our labors. Put another way, our actions matter if only we guide them towards solid and purposeful goals.

Indeed, this current issue of the Ecosystem Review aims to set out what this purposeful goal should be and what we should do to achieve this goal. Here we present the concept of "nature-positive", a stance which calls to *"**halt and reverse** the nature loss measured from a baseline of 2020, by increasing the health, abundance, diversity and resilience of species, populations and ecosystems so that by 2030 nature is visibly and measurably on a path to **recovery**"*.

This very definition of nature positive is important for more than one reason. First of all, as climate anxiety rises, it has the unfortunate potential of triggering fatigue for "action inertia", which is an important obstacle to tackling ecosystem change. However, a nature-positive stance reminds us that recovery is still possible, killing the desperateness and encouraging the action.

Obviously, we need reasons to act and here I will tell you a few good reasons why nature-positive gives us a full set of reasons. Nature action is critical from an inequality perspective. The World Bank (WB) refers to natural capital as the "wealth of the poor". Therefore, its degradation and loss disproportionately burden the lowest income group of the societies. The very same study by the WB finds that "the degradation of nature could cause the poorest countries to lose 10% of their GDP annually by 2030.".

Keeping in mind that "reversing the damage and recovery are *still* possible", the mindset of "grow now, clean up later" should be abolished. Sustainability is not enough. We should invest in "regeneration" if we are to reverse. Good news is we can!

In Shakespearean terms, after suffering a long bout pneumonia, akin to the ecosystem crisis, helping nature become ***hale and hearty*** is of benefit all us all. So, when we act for nature, we are in fact acting for ourselves. Shall we? The answer is a fat, big, yes!

Upcoming Events

The Environmental, Social Governance Summit will be held in Riyadh, Saudi Arabia on February 10-11.

The 2025 Climate and Clean Air Conference will be held in Brasília, Brazil on March 17 -21.

Development 2.0: Hello Nature

Gross Domestic Product (GDP) growth, when the cost of using nature is not considered, can be experienced at the expense of destruction of nature. When the production-nature relationship is not taken into account in the definition and calculation of GDP, the damage caused by growth on nature can also be overlooked.

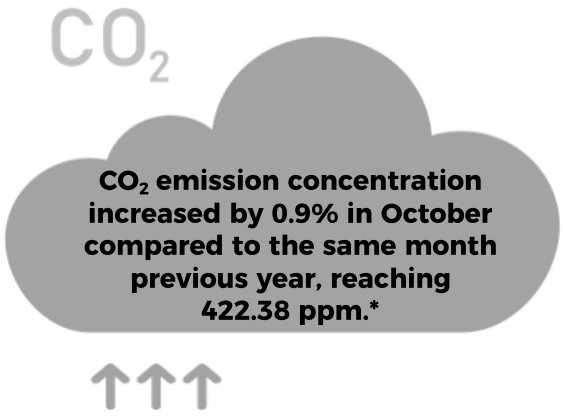
Recent studies on the relationship between nature and economic growth demonstrate that over half of global GDP is in fact moderately or highly dependent on nature. Defined as the direct and indirect contributions of ecosystems to human well-being, ecosystem services such as pollination, water filtration, provision of food from natural resources, or flood and pest control all play indispensable roles for economic growth that are also considered to be free of charge. Studies on the economic value of ecosystem services indicate that even a partial collapse of these services could result in a decline in global GDP amounting to USD 2.7 trillion per year by 2030. Conversely, resorting to a nature positive economy that prioritizes ecosystem restoration, nature-positive food production and circular business models could generate USD 10.1 trillion in annual business opportunities by 2030.

Our current production and consumption patterns are exceeding Earth's overall biocapacity by at least 75%, indicating the urgency of including nature in our overall development equation. The construction, agriculture and food and beverage sectors, for instance, generate around USD 8 trillion of gross value added combined, while also being directly reliant on healthy ecosystems such as clean water, healthy soils or natural resources. Current food systems are the main culprit for 70% of global biodiversity loss on land and 50% in freshwater. Studies which put a price on the resulting decline in ecosystem services indicate that the conversion of natural land to cropland, pastureland and forest plantations may result in a USD 90 billion loss of global real GDP by 2030, a figure which increases to USD 225 billion if the loss of nature-based carbon sequestration services is also included in the calculation.

Hence, it is becoming a novel development story taking nature into account as a major factor of production, and appropriately pricing its value shall be key in our future development endeavor. Examples of good guidance on this endeavor include the United Nations' System of Environmental Economic Accounting (SEEA), the Taskforce on Nature Related Financial Disclosures

(TNFD) and the Science Based Targets Network (SBTi) which all include data and frameworks on how to account for nature at micro (company) and macro (country and global) levels in assessing the indicators of nature positive development.

Resorting to a nature positive perspective for economic development is not, after all, just icing on the cake. It is the defining component of development for all actors involved. Hence, those who embrace the nature positive perspective are better positioned to lead the economy of the future whereas the business-as-usual riders may loose their chance to play a leading role in both development and economic growth.



*ppm: parts per million

Ecosystem 101

ecosystem regeneration

restoring ecosystems to a better state than before, including changing production and consumption patterns to protect ecosystems and biodiversity

biodiversity

the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part.

nature

the natural world with an emphasis on its living components, including categories such as biodiversity, ecosystems, evolution, the biosphere, humanity's shared evolutionary heritage, and biocultural diversity

ecosystem restoration

halting and reversing damage to ecosystems, thereby improving ecosystem services and biodiversity

physical risk

risks stemming from nature loss and the transformation, and its interaction with other environmental threats.

transition risk

risks to the economy and financial system stemming from policies aimed at addressing nature loss

100-Million Euro Biodiversity Fund to be Managed by Mirova

Mirova, a France based investment management company, was tasked with managing the world's first biodiversity fund worth €100 million. The fund aims to support biodiversity preservation through investments in innovative solutions with a focus on small and medium-sized European companies transitioning to sustainable business models. The fund will use environmental data from the Carbon Disclosure Project (CDP) to assess risks and monitor progress in reducing biodiversity impacts. The initiative reflects a strong commitment to biodiversity as a growing global priority.

Nature-Related Macro-Financial Risks

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While nature forms the foundation of being able to live in health and prosperity, it supports economic life through many different channels. The deterioration in the balance of nature in association with the climate crisis, and accompanying decrease in biodiversity potentially affects the size of national economies.

It is suggested that the destruction caused by the degradation of nature in the ecosystem where economic activity takes place could create a domino effect in the medium to long term and exacerbate the fragility of ecosystem services. The reduction in natural capital such as water, soil and woodland could bring physical risks including natural disasters, wreaking higher levels of damage in different areas such as agricultural production and infrastructure. For example, while small trees and vegetation in coastal wetlands offer protection against floods and storms, the deterioration of these natural shelters could worsen the damage inflicted by these natural disasters. An analysis of the aftermath of storms between 2000 and 2012 in around 2,000 coastal wetland regions in 23 tropical and semi-tropical countries found that economic activity in protected coastal wetland fell by between 6.1% and 8.2%. This was in contrast with a loss of between 2.6% and 5.5% in better-protected areas.

Losses in nature can give rise to other macroeconomic risks in areas of activity and for countries which are highly dependent on their ecosystems, potentially extending to the macro level through channels such as reduced labor, capital and productivity with micro-scale effects on companies, regions and sectors. Disasters which increase in severity due to nature degradation exacerbate reconstruction expenditures, requiring more transfers to companies and households, while reductions in tax income may threaten public finances. The pressure on public finances may negatively affect debt indicators and risk premiums. Droughts and floods, on the other hand, cause volatility in prices of certain commodities, especially food, affecting inflation, tourism receipts and trade in the countries affected and therefore their external balances and exchange rates. The droughts experienced in the USA in 2007 and more widely in the USA, China, Russia and Ukraine between 2010 and 2012 disrupted global wheat supply, and led to increase wheat prices and also affected global trade and inflation.

In addition to physical risks, changes in the regulatory framework and consumer preferences may also have macroeconomic consequences. Restrictions imposed on the production of certain products in order to limit the losses in nature or to restore nature may affect overall production and have knock-on effects. One example of is the effects of restrictions on the use of some pesticides in agricultural production on production and prices.

However, macroeconomic consequences resulting from physical and transition risks also pose a risk to financial stability. These effects can occur directly by disrupting the financial structure of the producers through the loss of production and price changes in the country, or may result from developments in another region or country, by spreading through the value chain.

As a result, with the increased frequency of shocks experienced as a result of the interaction between the climate crisis and the deterioration of nature, along with the decrease in biodiversity, the impacts of the risks on countries' macro-financial balances become more pronounced. This underlines the importance of countries developing a nature-positive framework in policy design with a holistic perspective for a stable macro-financial structure, as well as achieving emission reduction targets set out within the scope of their nationally determined contributions, which is an important indicator in the efforts to tackle the climate crisis.

Aftermath of the “Finance COP”

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As in previous years, we followed the COP process on -site in Baku, the capital of Azerbaijan, between 11-22 November. The COP29, shunned by some heads of state and called the "Finance COP", was recorded as a summit that failed to meet expectations in many ways. Despite this, some important decisions and commitments were taken.

One of the most important outcomes of the COP29 was the adoption of Article 6.4 of the Paris Agreement, which facilitates international carbon trading, on the first day of the conference. At the same time, Article 6, which contains the basic rules and guidelines for international carbon trading, was approved on November 23. These include agreeing on standards that determine how international carbon trading will work and encourage international cooperation to help countries meet their climate goals more effectively. This agreed clause allows emission reduction projects to produce and trade carbon credits and the creation of a carbon market under the supervision of the United Nations (UN). This mechanism is scheduled to be rolled out from 2025. In addition, the Multilateral Investment Guarantee Agency (MIGA), a World Bank agency, also announced its plan to launch a letter of authorization template that will provide insurance coverage to support investors operating in emerging carbon markets.

One of the important decisions and commitments of the summit was the "Hydrogen Declaration" on energy. This declaration, which aims to unlock the potential of a global hydrogen market, focuses on increasing low-carbon hydrogen production and accelerating the decarbonization of hydrogen production from existing fossil fuels. In addition, emphasis was placed on working together to reduce greenhouse gas emissions from hydrogen production to near-zero levels by targeting sectors that are difficult to decarbonize.

Another important development concerns the tripling of nuclear energy capacity. A total of 25 countries signed the declaration to triple nuclear power capacity by 2050, which was one of the outcomes of the COP28 held in Dubai the previous year. At COP29, these countries included El Salvador, Kazakhstan, Kenya, Kosovo, Nigeria and Türkiye.

Türkiye's participation in this declaration also coincides with the targets set out in the "2053 Long-Term Climate Strategy" document announced at the COP29. Again, in line with the objectives set out in this document, Türkiye has also become a party to the "Global Energy Storage and Grids Commitment". The strategy document sets out that countries will need to allocate 1.7% of their annual gross domestic product (GDP) to additional investment to achieve the targets. If this target is met in 2025, it means that the private sector would need to invest an additional USD 14 billion and the public sector will need to invest approximately USD 10 billion.

Another declaration announced during the COP29 was the "Declaration on Multi-Sectoral Action Paths (MAP) for Resilient and Healthy Cities". The aims of this declaration include promoting health equity and nature-positive urban development by developing reforestation, sustainable infrastructure and spaces, sustainable consumption and production patterns, nature-based solutions, and ecosystem-based approaches.

As a result, this was a COP in which the "Decision Letter" was not published. One of the most important consequences of this is that the phrase "transitioning away from fossil fuels" in the cover letter has not been directly confirmed. All decisions expected from the meetings but not taken will be renegotiated. Between the "Bonn Climate Conference" in June and the COP30 in November 2025, it will be important to monitor developments regarding if the countries are able to update their Nationally Determined Contributions (NDCs) by February ahead of the COP30. See you at the next COP.

Unsatisfactory Negotiations Leave All Aspects of the COP Open to Debate

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We have left what has been behind a challenging two-week Conference of the Parties (COP) to the UN Framework Convention on Climate Change. While various analysts have described the result as "a reasonable balance between the world's need for transformation and what can be achieved politically today," much of the world, especially in the Southern Hemisphere, has been left disappointed. The USD 300 billion target that emerged in Baku, where the New Collective Quantified Goal (NCQG) plays a leading role, fell far short of what underdeveloped and developing countries had hoped for. Expectations were for USD 600 billion in climate finance to be provided as grants, but the agreement did not offer any concrete direction on the structure of the financing. In these circumstances, the prospect of most of the financing being in the form of loans is considered negative for developing countries under the burden of debt. COP29 also called for at least USD 1.3 trillion in funding from all sources (private and public) to be mobilized by 2035, but private sector funding and contributions from voluntary developing countries are unlikely to bridge the gap.

While the results were not satisfactory either in terms the headline figures or the sub-details, the striking point was that this year's COP process as a whole was also discussed. The first issue here concerns communication. The United States (US) and China, the top two countries when it comes to historical greenhouse gas emissions, were silent throughout the COP29 in contrast with the European Union, African countries and small island states. The silence of the US was also influenced by the fact that Donald Trump, who had withdrawn from the Paris Agreement during his first presidential term, secured a second term in last month's elections. We noted how representatives from leading media outlets, including countries such as India and Saudi Arabia, pointed to the lack of communication with the public.

When it comes to the COP, lobbying by polluting industries has long been a concern. What differentiates COP29 from previous years is not only the large number of studies covered in the press, but also the call to the UN by the Club of Rome, which consists of scientists, economists, business people and former state leaders. Recommendations in the open letter included increasing the representation of countries most affected by climate change and implementing stricter controls on participation from the fossil fuel industry. The letter from the Club of Rome came a few days after Azerbaijani President Heydar Aliyev described his host country's gas and oil reserves as "a gift from God" and also suggested that countries that do not support the phasing out from fossil fuels cannot run for the COP presidency.

The climate crisis and climate negotiations concern us all. On the other hand, we have experienced a process in which the representatives of the countries did not adequately inform the public through the press, and the most important articles of the agreement, which will affect the future of the majority of the world's population, were not included in the draft documents until the last moment. Will the COP undergo a structural transformation in the near future, drawing on the experiences in Baku? It is difficult to say at the moment. However, there are many lessons that Turkey can learn from the COP29 as it is a candidate to host the COP31 in 2026. As a matter of fact, the Presidency is obliged to maintain the determination to move forward in the negotiations throughout the process, to resist the pressure, to be an impartial mediator when necessary, and to prepare a ground for the parties to express themselves. We have seen once again in Baku that this is not an easy task.

Too Many COPs Around?

Thirty years after the first Conference of the Parties (COP) on the Convention on Biological Diversity (CBD) held in the Bahamas, the 16th CBD COP this year concluded with mixed results. Despite being rather overlooked, CBD COP conferences are in fact, the predecessors of their more renowned siblings, the COP on United Nations Framework Convention on Climate Change (UNFCCC) that held its first meeting one year later in 1995. A reason behind the slow progress of the biodiversity negotiations might be the lack of a single unified metric like carbon emissions in climate negotiations.

Unlike UNFCCC COPs, CBD COPs are not held every year either, but this year's meeting ended rather abruptly with remaining work on biodiversity funding to be completed before the next meeting scheduled for 2026. A couple of the more notable outcomes of the conference include the establishment of new structures for Indigenous Peoples and local community involvement in international biodiversity negotiations and creating a new "Cali Fund" to help developing nations capitalize on the genetic resources used in global industries like pharmaceuticals and biotechnology.

"Raising the political profile of biodiversity" was perhaps the most overlooked success of the conference. Still, the disagreements on financing biodiversity and the lack of groundwork on the establishment of a monitoring framework based on national biodiversity plans (NBPs), that are still overdue for around 150 countries, were important bottlenecks. The lack of NBPs is mainly due to the difficulty in measuring biodiversity and its restoration - as biodiversity is context and location dependent, complex and non-fungible, therefore leading to poor data availability in many parts of the world.

Financing biodiversity protection remains a central challenge. While developed countries pledged millions, the support remains far short of the estimated USD 200 billion needed annually. This gap highlights the difficulty in funding large-scale conservation projects, particularly for developing nations that host much of the world's biodiversity but lack sufficient resources to protect it effectively.

Despite underscoring the urgency of conserving biodiversity and engaging diverse stakeholders, COP16 left a bittersweet taste indicating that without substantial financial commitments and clear national plans, meeting the 30 by 30 target may remain out of reach.

Financing Nature

As discussions around the climate crisis and its economic implications appear to partially grasp the broader ecosystem collapse, the means to tackle this downfall require a broader set of arsenals. Rethinking the much debated "climate finance" in this framework seems to be central in efforts to switch our perspective from mere climate considerations to nature positive economic development.

Nature positive finance represents a pivotal shift in financial systems, emphasizing ecological restoration and the sustainable use of natural resources to enhance ecosystem health and resilience. This paradigm diverges from traditional climate finance, adopting a broader, systemic perspective, targeting the regeneration of ecosystems to simultaneously address biodiversity loss, climate change and socio-economic challenges. Its overarching goal is to harmonize economic development with the preservation and restoration of nature's essential functions, thereby transforming how financial systems interact with nature.

Nature risk, after all, is a financial risk. Examples such as water shortages and water stress, deforestation, land degradation or pollution pose serious risks for companies operating in a range of sectors. Resorting to nature positive finance, therefore, lies at the heart of long-term sustainability.

Nevertheless, measuring nature positive outcomes is the most significant challenge when it comes to categorizing financial flows that go into nature restoration. In tackling this challenge, the Nature Positive Initiative developed three key categories of metrics to measure the impacts of financial flows on (i) species, (ii) ecosystems and (iii) natural processes achieved on site and/or landscape levels and which were quantifiable in terms of state-of-nature improvement relative to a static baseline. Setting this baseline as 2020, the Kunming Montreal Global Biodiversity Framework (GBF) aims to restore 30% of all degraded ecosystems and conserve 30% of land, waters and seas by 2030 (30 by 30).

Yet, the funding gap between current financing on nature conservation and restoration and the required amount to achieve the goals set out in the GBF is estimated to be in the order of hundreds of billions annually. Mobilizing both public and private finance as well as implementing blended finance models, therefore, is vital in resolving this challenge. This comes on top of the need to cut nature negative finance flows - such as those directed to fossil fuel subsidies - that are estimated to stand at almost USD 1.7 trillion per year. A sectoral breakdown of nature negative financial flows reveals that construction, electric utilities, real estate, oil and gas, and food and tobacco represent 16% of total private investment flows in the economy, but 43% of nature-negative flows.

Nature positive finance redefines the role of finance as a regenerative force, addressing critical environmental and economic challenges. By fostering ecological resilience and economic stability, it ensures that financial systems serve as allies in securing the natural foundations of human well-being. This paradigm shift is not just an environmental necessity but an economic imperative.

Nature Positive Perspective on Energy Transition

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The energy transition, which is based on the strategies set out for the implementation of clean energy technologies, cannot be considered independently of the ecosystem. The energy transition, which is one of the most critical tools in achieving the climate goals, is also linked to the ecosystem at every stage of the supply chain. For this reason, every process from the supply of critical raw materials used in renewable energy technologies to the land use and waste management of power plants affects the ecosystem.

The relationship between the energy transition and ecosystem can be more clearly understood with a nature-positive perspective. From this point of view, we note that the rollout of ecosystem restorative energy policies and practices is gaining pace day by day.

Policy approaches in this direction are set out in the European Union's regulations on nature-friendly restoration laws. The Smart Siting Methodology, carried out by The Energy Community and The Nature Conservancy as a pilot project in Southeast Europe, is an example of nature-positive policy approaches. The smart siting methodology is aimed at selecting renewable energy installation areas in a manner that does not harm biodiversity by using energy, environment and socio-cultural data sets. One location where the methodology is used is Croatia. More than 50% of the region, which offers climatic conditions suitable for solar and wind energy installations, consists of areas protected for biodiversity. The smart siting methodology, which is applied using 22 different data sets, determines areas close to the grid with high energy efficiency, taking into account valuable farmland, wildlife such as bear habitats and bat colonies. It also places importance on community values through discussions with local stakeholders throughout the process. It is claimed that half of Croatia's wind and solar targets for 2030 can be met with the installations in the areas determined by the smart settlement methodology in the city of Zadar.

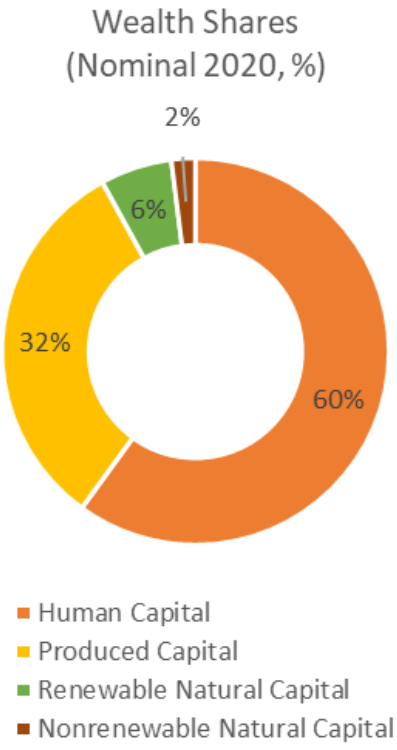
Another country that has developed nature-positive policies is the United Kingdom (UK). The UK government also requires that projects with plan permits, including solar energy systems, to achieve net biodiversity gains of at least 10% by February 2024, while the impact analysis of solar power plants in line with this decision finds that nine out of 10 solar power sites have habitat gains compared to the period before installation.

In addition to government policies, the nature-positive approach also stands out in sector practices. For example, "motionless" wind energy systems developed in the UK and installed on rooftops are intended to prevent bird strikes while reducing the noise and vibration caused by traditional wind turbines.

Aiming to achieve a net positive impact on biodiversity with every project they develop by 2030, renewable energy company Orsted aims to naturally grow corals that are sensitive to changes in the ecosystem on the turbine foundations of offshore wind farms with the "ReCoral" project it has developed.

These examples, which demonstrate that a nature-positive approach can very much play a part in the energy transition and the development of related technologies, can also be considered as a harbinger of the increased interest in this approach. However, policy support will be paramount in ensuring that the nature-positive approach to the energy transition is sustainable. In this vein, while appropriate policies will underpin the nature-positive energy transition, clean energy technologies can help us move towards meeting the climate targets by repairing the ecosystem.

Natural Wealth is the Real Beauty



Source: World Bank, TSKB Economic Research

The shortcomings of GDP accounting in measuring the impacts of nature - as a central component of production - prompt an urgency to redefine how we assess the real value of our economic output. This is where "wealth" comes in handy as a metric of economic development that can take natural capital as a defining factor of production.

Nature is a central component of economic activity. Yet traditional methods of measuring economic activity disregard both the contribution and the limitations of nature in the economy. While continuously expanding our agricultural output for centuries, for instance, we have degraded around one third of global farmland and commercial fish species and destroyed 87% of inland wetlands since the year 1700. According to a study conducted by the United Nations Environment Program (UNEP), we are losing ecosystem services worth more than 10% of our global economic output every year. When natural capital is considered in the calculation of GDP, it becomes clear that wealth expanded by an average of 1.8% per year between 1990 and 2014, falling far below the 3.4% GDP growth in the same period. This leads us to face the inconvenient truth that we are not as wealthy as we think, largely due to the decline in natural capital.

With an aim to assess the value of nature in economic development, the World Bank introduced the Changing Wealth of Nations report that defines wealth as a concept encompassing the value of all the assets of a nation including produced capital (factories, roads, intellectual property, etc.), natural capital (forests, fish stocks, fossil fuels, etc.), human capital (labor force), and net foreign assets. The report goes further to set out a distinction between renewable (agricultural land, forests, fish stocks, etc.) and non-renewable (oil, natural gas, coal, metals and minerals) natural capital. The report finds that renewable natural capital declined by more than 20% in per capita terms over the past 25 years. The rate of decline in non-renewable natural capital, furthermore, was measured as 2.5% per year between 1995 and 2020. The other two asset categories in the Bank's wealth measure - produced capital and human capital - were found to have increased by 47% and 9% respectively in the same period. These data show that real wealth per capita increased by 21% in the 25 years to 2020, while GDP per capita increased by around 50% in the same period, revealing the decline in natural capital and the need for a restorative approach when natural wealth is taken into account.

In a world where we are depleting indispensable natural resources that are taken for granted, a new paradigm in measuring our economic growth and wealth is required. Within this framework, traditional GDP measure views timber, for instance, solely as an economic good, overlooking the critical ecosystem services provided by the woodland in which it is harvested. Stopping and reversing the erosion of natural wealth is only possible when we see nature as an input, as part of capital, and seek to protect and restore it.

Climate Finance

The State of Biodiversity Finance

The main mission of the Kunming-Montreal Global Biodiversity Framework (GBF) adopted by more than 190 nations at the 15th UN Biodiversity Conference (CBP COP15) in December 2022 is to halt and reverse biodiversity loss by 2030 on a 2020 baseline, and achieve full recovery by 2050. Hence, the scope of the global financial architecture is expanding ever since, to include biodiversity and nature positive finance beyond the mere climate dimension of nature degradation.

Biodiversity finance refers to raising and managing capital and using economic tools to support biodiversity management, while nature positive finance by definition goes further (but more strictly) to include financing that is expected to deliver "measurable positive outcomes" for biodiversity or ecosystem services, relative to business as usual.

Broadly defined by the BloombergNEF (BNEF) research group as biodiversity finance, "financial flows into the preservation and restoration of nature" amounts to USD 208 billion a year. Yet, in the current situation where USD 7 trillion in annual investments flow into "nature-negative" activities such as environmentally harmful subsidies or private finance flows, BNEF argues that reaching the GBF targets will require an annual target of over USD 1.15 trillion for biodiversity finance. Hence, the gap between current biodiversity finance and future needs will widen to USD 942 billion. BNEF also finds that public finance accounts for the bulk of global biodiversity finance at USD 173 billion, albeit with the bulk of that finance being deployed domestically, with international flows of biodiversity linked aid only amounting to USD 10.2 billion in 2022. Debt-for-nature swaps wrote off a record USD 2.3 billion of debt in 2023, yet nature-based carbon credits are estimated to have fallen by 53% between 2021 and 2023, mainly due to concerns about the market's integrity.

BNEF also warns that in a world where around 55% of global GDP is moderately or highly dependent on nature, and a much higher share reliant on functioning ecosystems, the nature-related risks of companies can be measured in billions.

Average temperatures in Türkiye were recorded 1.3˚C and 0.2˚C above seasonal averages in September and October respectively.

The First Biodiversity Bond of Finance Sector

The first biodiversity bond of finance sector focused specifically on reforestation, the regeneration of natural forests on degraded land, climate-smart and regenerative agriculture and the restoration of wildlife habitats was issued by the BBVA Colombia and International Finance Corporation (IFC). The first tranche raised USD 15 million and is projected to reach USD 70 million. The IFC, as the structurer and investor of the bond, will also provide advice to establish eligibility criteria and reporting indicators for biodiversity and ecosystem services related activities in the country. Colombia also hosted the CBP COP16 on the UN Convention on Biological Diversity between 21 October and 1 November 2024.

Climate Justice

Who Are the "Polluters" to Pay?

What is the extent of companies' legal responsibility - especially in the fossil fuel industry - to comply with international obligations in cutting emissions? This new frontier in climate litigation is one of the most contentious issues and the case of Shell in the Netherlands is a prime example.

What makes Shell's case unique is that it is the first example of climate cases being brought against corporations as "polluters" within the context of international agreements signed by nation states. First resolved in 2021, the court mandated Shell to reduce its greenhouse gas emissions by 45% by 2030 when compared to 2019 levels. Shell appealed against the decision arguing that the ruling unfairly held private corporations responsible for state-level climate obligations under the Paris Agreement.

As one of the main plaintiffs, the Dutch wing of the global environmentalist organization, Friends of the Earth, argued that the case would determine the responsibility of large private polluters not only in respect to causing climate change but also failing to address it. Shell is one of the 57 companies responsible for 80% of all global greenhouse gas emissions and hence this landmark case could potentially have implications for all major polluters. This argument is based on reports from international organizations such as the International Energy Agency (IEA), stating that there is no room for new oil and gas projects if the internationally agreed limits of global warming are to be complied with. The plaintiffs also argued that international agreements were applicable in Dutch civil liability law, including the 1.5°C and 2.0°C targets set out in the Paris Agreement.

Shell's appeal against the 2021 ruling in the Netherlands carries an important precedent to the original decision to cut greenhouse gas emission by 45%, which not only includes the company's emissions but also those caused by the buyers and users of its products. Shell recently relaxed some of its climate targets, such as its targets to reduce its carbon intensity targets by 15-20% by 2030, while maintaining the 2050 net zero goal.

The Dutch court overturned the original ruling on November 12th on the basis that there was no agreed upon percentage in climate science for the required percentage of emissions cuts for private businesses to reach the Paris Agreement goals. Even though the court reiterated that major polluters such as fossil fuel companies are obliged to contribute to the efforts to tackle climate change based on their responsibilities to human rights, the court also stated that companies cannot be held responsible for establishing "a social standard of care" to reduce emissions by any certain amount. The ruling can still be taken to the Supreme Court by the plaintiffs.

Company Highlights

There is perhaps no better example than the food and beverage industry when it comes to sectors that depend on embracing a nature positive approach in their sustainability efforts. As companies in this industry are directly linked to nature and ecosystem services as their main factors of production, nature is vital for their long-term survival. The main challenge facing the sector, is the need to supply food for a growing population, and doing this by expanding agricultural land increases the risk of deforestation and as a result, biodiversity loss.

Nestlé, as one of the giants of the sector, offers a good illustration of nature positive efforts in a complicated industry. Besides its goal of being net-zero by 2050, the company is employing a Forest Positive Strategy and working to expand the adoption of regenerative agricultural practices in its supply chains. Under its forest positive strategy, Nestlé aims to create deforestation free supply chains, support long-term forest conservation and restoration efforts, and help create sustainable landscape.

Nestlé is aiming to plant and grow 200 million trees in its supply chain regions by 2030 and already planted around 47 million trees between 2021 and 2023 securing an estimated 12.4 million tonnes of carbon dioxide equivalent over a 20-year period. The company is also monitoring its supply chains for deforestation risks, helping it achieve 93.4% deforestation free supply chains for meat, palm oil, pulp, paper, soy, sugar, cocoa and coffee as of 2023. This high figure comes in spite of one major ingredient, cocoa - a well-known driver of deforestation and loss of critical wildlife habitat - only offering a 42.3% deforestation free supply chain. The company's primary supply chains, excluding coffee and cocoa, were 99.1% deforestation free in 2022. Nestlé continues to assess the deforestation free status of key ingredients by tracing ingredients back to regions classified as at low risk of deforestation or employing on the ground and satellite monitoring of crops to ensure its primary supply chains deforestation free by 2025.

When it comes to long-term forest conservation and restoration, Nestlé implements an overall approach encompassing indigenous people and community land rights, supporting sustainable livelihoods by investing in good agricultural practices, and boosting incomes through direct cash incentives directly paid to cocoa farming families to support agroforestry activities and afforestation, including planting of fruit trees. The company also supports 15 landscape level initiatives to restore wider ecosystems.

As nearly two-thirds of Nestlé's greenhouse gas emissions come from agriculture, the company strives to scale regenerative agriculture to improve soil health, sequester carbon, support food security, restore water resources and enable biodiversity. Nestlé aims to source 20% of its key ingredients from farmers adopting regenerative agricultural practices by 2025 and increase this share to 50% in 2030*. In line with this aim, the company is investing USD 1.3 billion to promote practices to enhance biodiversity and conserve soil and water.

The company's shares are traded on the SIX Swiss Stock Exchange, and as of November 20, the company's market value stood at USD 226 billion. Nestlé generated USD 111 billion in revenue in 2023 and wrote a net profit of USD 15 billion during this period.

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* TSKB Economic Research—From Carbon To Credit: Regenerative Agriculture and Carbon Credits

In Short...

Google's Water Trouble in Chile

Google announced that it will pause plans to build a USD 200 million data center in Santiago, Chile, due to environmental concerns, specifically water usage. The project had faced a backlash and government scrutiny as Chile deals with a severe drought, prompting a local court to temporarily revoke its authorization over fears that it would affect the city's main aquifer. Google will redesign the data center with a new, less water-intensive cooling system and comply with stricter environmental standards, emphasizing the company's commitment to sustainability.

EU Deforestation Regulation Postponed

The European Union (EU) Council has agreed to postpone the implementation of the EU deforestation regulation by 12 months, allowing more time for third countries, member states, operators and traders to prepare for due diligence requirements. The new timeline sets binding obligations from December 2025 for large operators and June 2026 for smaller enterprises, ensuring they implement systems to identify and mitigate deforestation risks in supply chains. This amendment does not change the regulation's aim of minimizing deforestation, with the requirement that only deforestation-free products can be sold in or exported from the EU.

Renewable Energy Set to Fall Short of Target to Be Tripled by 2030

Despite record growth in solar energy, the world remains short of meeting the COP28 goal of tripling global renewable energy capacity to 11.2 terawatts by 2030, according to the International Renewable Energy Agency (IRENA). The current plans are mired by significant gaps in achieving the required increase, with significant shortfalls in wind and geothermal energy development. Urgent actions, including increased investments and infrastructure improvements, are needed to close the gap and align renewable growth with climate targets according to the first official tracking report on the target set at COP28 last year.

Toyota Warns Over Shift to All Electric Vehicles

Toyota Chairman Akio Toyoda warned that a shift to an electric vehicle-only future could result in significant job losses, particularly among workers involved in engine-related manufacturing and at many automotive suppliers in Japan. He emphasized the impact on the country's 5.5 million automotive workers and advocated a "multi-pathway" approach to achieve zero-carbon emissions, which includes hybrids, hydrogen fuel-cell vehicles, and traditional combustion engines alongside EVs. Despite the global push for electrification, Toyota has taken a more conservative stance, benefiting from demand for hybrids while projecting that electric vehicles may only constitute 30% of the global market.

United Kingdom Appoints First Envoy for Nature

The UK appointed its first Special Representative for Nature in the COP16 meeting , signaling a major step in addressing biodiversity loss and environmental challenges. Ruth Davis, a seasoned environmental advocate who played key roles in nature recovery and climate action, stated that appointing a nature envoy demonstrates the UK's recognition that the nature crisis is of equal gravity to the climate crisis, and that one cannot be tackled without addressing the other. The creation of the first "nature envoy" position comes besides the already existent climate envoy position.

Biodiversity Loss in Protected Areas More Rapid Than Anticipated

Scientists warn that biodiversity in protected areas worldwide is declining even more rapidly than anticipated, undermining global conservation efforts. Despite pledges like the "30x30" target, which aims to protect 30% of Earth's land and seas by 2030, many of these areas face severe challenges due to climate change, invasive species and poor governance. Experts highlight the need for more equitable and inclusive conservation approaches that incorporate indigenous rights and address human impacts, as well as stronger monitoring systems to ensure these regions are genuinely safeguarded.

Fitch: Decarbonisation Progressing Far Too Slowly

Fitch Ratings reports that global decarbonization efforts are insufficient, with current policies placing the world on track for a temperature increase of around 2.5°C, far above the 1.5°C target. The report finds that global carbon dioxide (CO_2) emissions increased by 1.8% in 2023, while global GDP growth was 2.9% in the same year. This marks a decline of around 1% in the ratio of emissions-to-GDP, which is in line with the last 25-year annual decline trajectory but a long way short of the 8% annual decline needed between 2020 and 2030 to achieve net-zero by 2050. Global CO_2 emissions need to decline by roughly 43% by 2030 compared to 2019 levels, but emissions remain high, with significant gaps in sectors like heavy industry and transportation.

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