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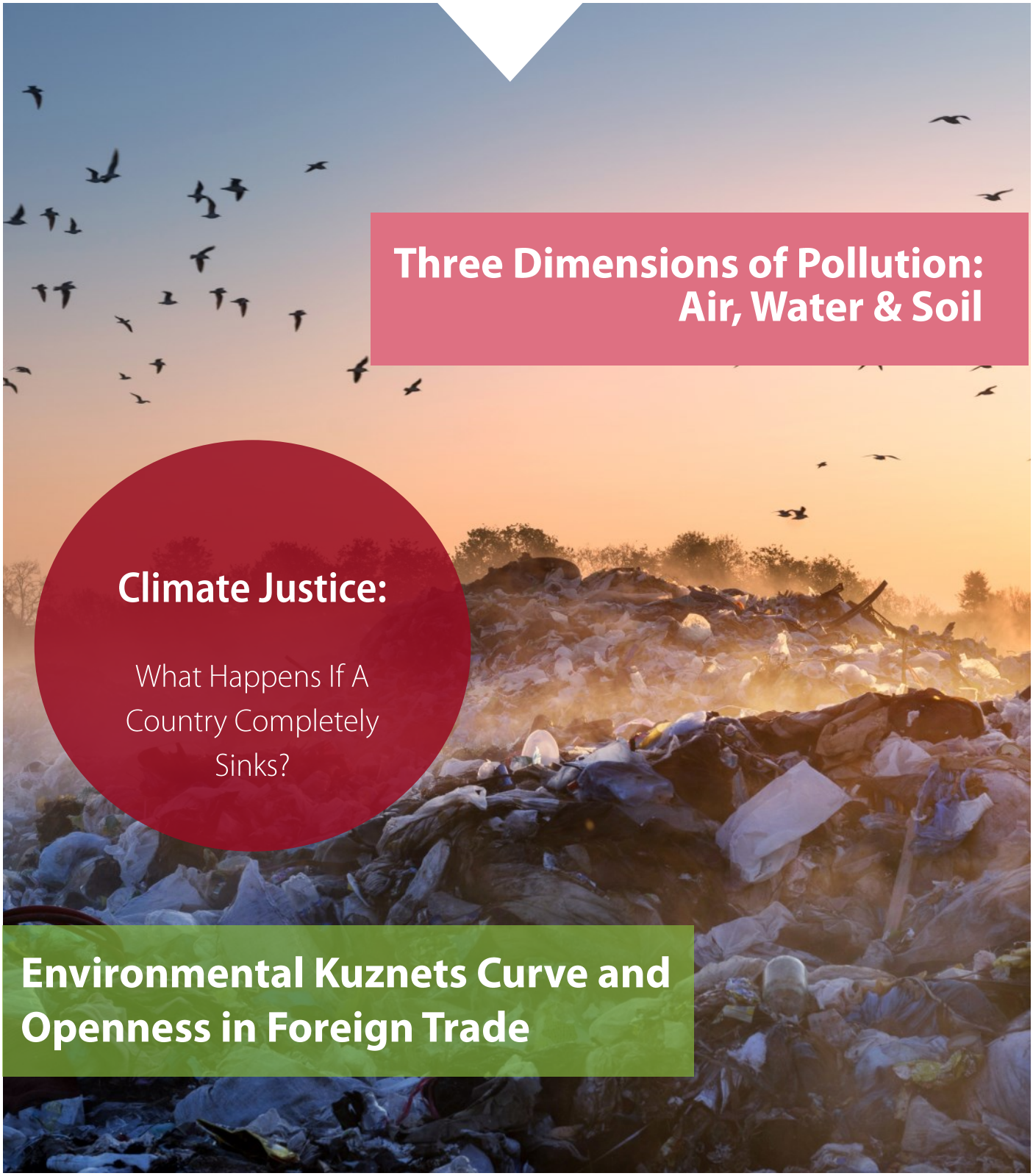

Three Dimensions of Pollution: Air, Water & Soil

Climate Justice:

What Happens If A Country Completely Sinks?

Environmental Kuznets Curve and Openness in Foreign Trade

The content of Climate Review was written by Onur Bülbül, PhD.
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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Pollution, Pollutants, Polluters… What?

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Upcoming Events

Summit of the Future: Multilateral Solutions for a Better Tomorrow will be held on September 22-23.

New York Climate Week will take place September 22-29.

Greetings from our 15th issue!

This issue focuses on "pollution", a subject that TSKB's Economic Research Team has long been following or, perhaps more accurately, "longer than many others". The Team even released a report covering air pollution back in 2022, when the topic was not yet on the radar for many. In less than two years, we have seen more and more people join us in realizing the magnitude of the pollution risk and the need to fight it.

In fact, I woke up to the rising interest in the subject while writing for the current issue of the Ecosystem Review. To update myself on the topic, I revisited the online sources I used while I was writing the preface for the air pollution report prepared by TSKB Economic Research, and I happened to see that the content of the very same sources had improved and become considerably more comprehensive in the space of the last two years. There are more details about the types of pollution and pollutants, as well as a more thorough discussion.

My colleagues, too, will write about types of pollution such as pollution in the air, fresh water and soil. Our report also refers to the rising political commitment around the world to work towards a pollution free planet. For this purpose, we will see many more international conferences, gatherings and, of course, high carbon emission plane trips as participants fly to these conferences.

I remember the path of rising interest in a topic, from the times where we studied the theme of "water". When we started to write about water back in 2018, awareness was relatively limited. Soon after that, interest in the subject skyrocketed, so much so that its popularity started to exceed the level of awareness. Let me put this straight: high popularity is not always good. It comes with noise, and the risk of killing the purposeful action.

Indeed, this is something we need to be careful about now as well. There will be a cacophony of words as the pollution theme gets more popular. But will they really show us what we need to know? We are speaking about pollution and pollutants; what about the polluters? Any discussion that pulls us away from the core of the topic, brings its own new, and extremely dangerous, type of pollution - infollution.

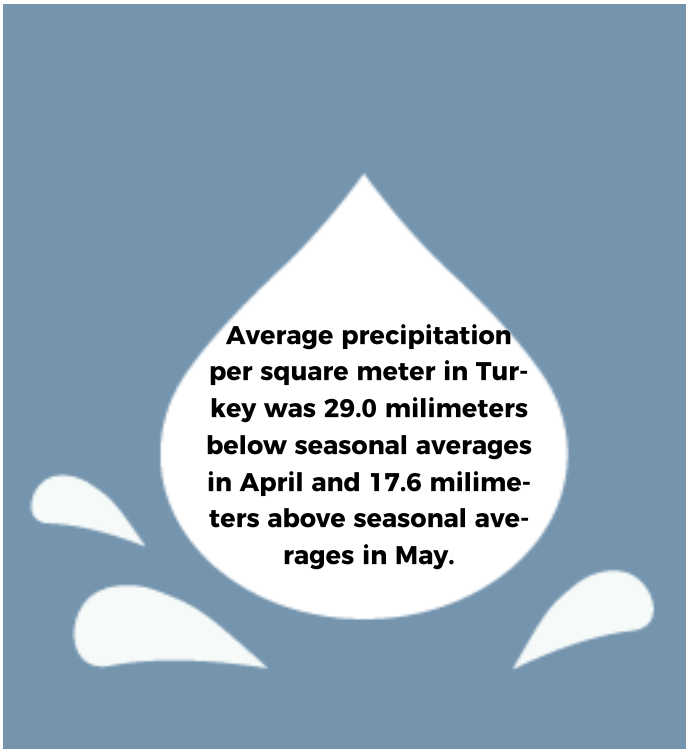
So here we are, urging all our stakeholders to tackle all types of pollution, including infollution, as well as pollutants and polluters. Together, cleaner, wiser and stronger!

Clean Air and Plenty of Sun for a Healthier Environment

Air pollution is a global problem which does not respect national boundaries and has far-reaching negative impacts on economic growth, welfare and human health. Nevertheless, the impacts of air pollution on ecosystems and biodiversity are generally overlooked. Pollutants such as sulfur, atmospheric nitrogen, ozone, ammonia and heavy metals are among the most damaging components for our ecosystems.

Sulfur, for instance, can cause high levels of acidity in lakes and rivers, damaging trees and soil. Atmospheric nitrogen may result in declining biodiversity of plants and aquatic life. Ozone harms tree leaves, as well as agricultural crops, impairing photosynthesis and damaging plant growth. Mercury and other heavy metals can accumulate in plants, animals and even the human body through the air we breathe, the water we drink and the food we consume. Air pollution caused by black carbon, on the other hand, speeds up the melting of Himalayan glaciers, thus accelerating the negative impacts of the ecosystem crisis.

The negative impact of air pollution on agricultural production is another major cause of concern. Ground level ozone, for instance, harms vegetation and reduces biodiversity. The economic fallout of reduced wheat yields caused by ozone exposure in 2019 amounted to EUR 1.4 billion across 35 European countries. Among these countries, Türkiye's share was estimated to at EUR 132 million by the European Environment Agency, amounting to between 2% and 4% of total wheat yields of the country. Excessive levels of pollutants in the air also lead to acidification, impairing the efficiency of indispensable "ecosystem services" such as nutrient cycling, carbon cycling and water provision.



As air pollution impairs the health of our ecosystems, and hence the life and welfare of our planet, we are rushing to come up with solutions for this rapidly enveloping crisis. The use of air quality standards, for instance, is applied in many parts of the world to limit the amount of pollutants in the air. However, it is the implementation of policies to meet these standards which is key in tackling these silent toxins. Such policies include limiting factory emissions, vehicle exhaust and deforestation. These activities will not only help lower the amount of pollutants we as humans emit into the air, but also control and perhaps slow down the adverse impacts of accelerating extreme climate events such as wildfires on air pollution.

Clean air and plenty of sunshine are usually prescribed to cure many diseases. The direst disease of our planet, the ecosystem crisis, also requires clean air and an optimum amount of sunshine to slowly fade. A bright future for our planet, therefore, seems to require bright air and a healthy dose of sunshine.

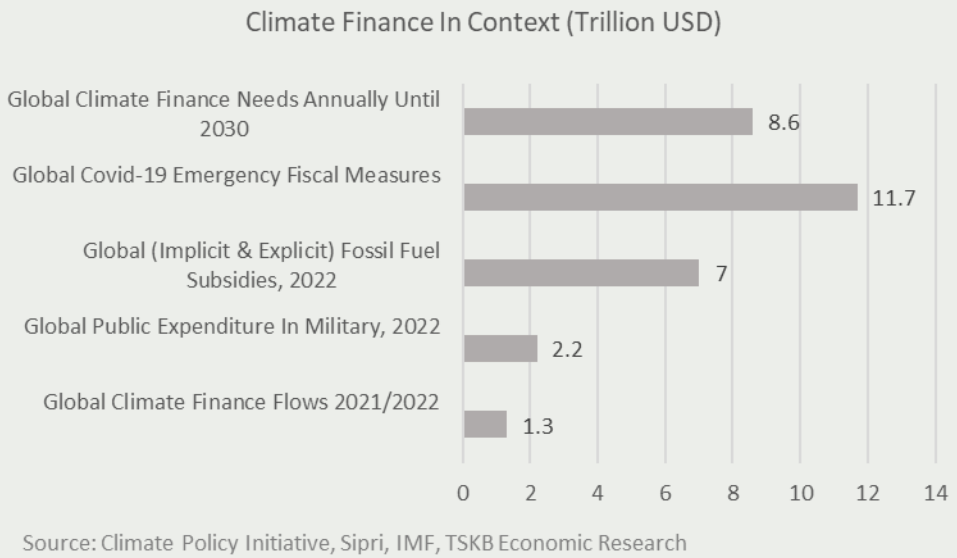
How to Finance the Green Transformation

In a report published last year, the Climate Policy Initiative projected that USD 9 trillion in annual climate financing would be needed by 2030 on a global basis, and over USD 10 trillion between 2031 and 2050 to meet the Paris Agreement targets. Estimating the finance needs for the green transformation is a good start; but deciding how to fund it, on the other hand, is harder.

The world is relentlessly working to come up with creative financing mechanisms for the required ecosystem action, yet there is little coordination. In the United States, for instance, the Inflation Reduction Act - as the masterpiece of climate legislation - is providing subsidies, grants and tax credits to green projects and companies. The European Union (EU) unveiled its REpowerEU strategy setting binding targets for renewable energy while providing grants and loans to prop up the private sector inclusion. China is deploying unprecedented amounts of renewable capacity every year, accounting for almost 60% of global renewable capacity to become operational in 2028. Developing countries are looking for easier and increased access to climate finance. COP summits, on the other hand, have so far produced much on climate finance. So, the question remains: how to finance the green transformation?

Actions to fight the ecosystem crisis go beyond just switching to renewable energy. They include energy efficient buildings, resilient urban infrastructure, transformed electrical grids, restored nature and electrified transportation to name a few. To tackle these challenges, countries around the world are putting several policies in place. Last year's decision at the COP28 to 'transition away from fossil fuels' by 2050 while tripling renewable energy capacity and doubling energy efficiency improvements by 2030 presents a challenge on its own. This has led countries to seek innovate solutions. For example, some countries have begun to consider how "innovative financing" such as shipping and clearance taxes could be used to finance climate action. Other practices include a global minimum tax on corporate profits, carbon pricing, issuing green sovereign bonds, or limiting fossil fuel subsidies, which reach $7 trillion a year.

How to finance the green transition is fast becoming the trillion-dollar question of our times. If the world stays on track to meet the Paris Agreement targets, we need USD 9 trillion annually. These funds will be the building blocks for a better and greener future.



Source: Climate Policy Initiative, Sipri, IMF, TSKB Economic Research

Environmental Kuznets Curve and Openness in Foreign Trade

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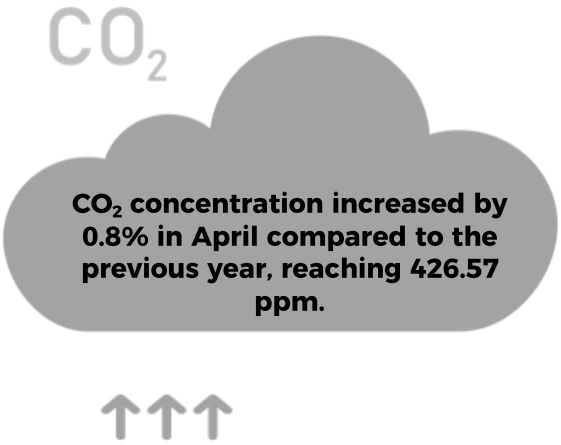
The Environmental Kuznets Curve (EKC) is a very popular topic in academia as a hypothesis that addresses the relationship between the deterioration in environmental conditions and the level of per capita income. According to this hypothesis, while there is an increase in environmental degradation as per capita income rises at the lower end of the income scale, environmental degradation begins to decrease as per capita income increases over a certain threshold value. While a deterioration in environmental conditions is generally considered within the scope of environmental pollution, different methods are used to measure pollution in empirical studies. The most popular of these include carbon dioxide emissions and levels of harmful particulate matter in the air. Although data-based studies do not always provide similar results, literature review provides some findings of the validity of the EKC. Studies have also been conducted into the validity of the EKC hypothesis in Turkey. One such example published by our colleague shows that rising income levels in Turkey will still bring an increase in environmental degradation.

A study conducted in 2024 adds a third dimension to the trade-off between growth and environmental degradation and considers how openness in foreign trade affects this trade-off. This study, using trade openness data, found a non-linear impact of growth and openness on environmental pollution. A panel data set of 147 countries covering the period between 1995 and 2018 was used in the article. Countries were divided into groups (low, lower-middle, upper-middle and high) on the basis of their economic development. First of all, the results partially confirmed the validity of the EKC hypothesis. More precisely, the impact of economic growth on pollution was found to be positive for all income groups. Consistent with the EKC, this effect increases in quantity as we move from low-income to lower-middle-income groups, before decreasing as we move up from lower-middle-income groups.

The effect of trade openness on the relationship between growth and environmental degradation also varies depending on the levels of income of each country. According to the study, as trade openness increases for high-income countries, the effect of economic growth on environmental pollution decreases. For these country groups, trade openness enables technological developments and transfer of knowledge, while limiting the negative environmental effects of growth. For low- and middle-income country groups, increased trade openness exacerbates the negative environmental effects of growth. Here, too, while relatively low-income countries allow flexible environmental regulations in order to demonstrate a stronger development performance, openness to the outside world leads to the transfer of industries that cause high levels of environmental pollution to these countries.

As EKC points out, just as growth has an impact on environmental pollution, studies demonstrate that pollution also hinders economic growth. Economic impacts of air pollution were discussed in TSKB Economic Research's "Don't Take My Breath Away" report. Also, World Bank's "Country Climate and Development Report for Türkiye" establishes that a resilient net zero pathway would increase GDP growth and employment, thanks to increased labor productivity due to reduced air pollution. As a result, the relationship between growth and pollution is bidirectional; hence when we take steps in respect to one of these variables, we need to consider and calculate how the other will be affected.

Soil Pollution: A Silent Crisis



*ppm: parts per million

Soil is another major source of natural capital alongside air and water which life on earth depends on, and hence plays a vital role in the healthy functioning of ecosystems. Soil pollution, therefore, poses serious risks to human, animal and plant health as well as the environment and the economy. Even though calculating the total cost of soil pollution is a complex task given the difficulty in determining the impacts on the broader ecosystem services or the unreported information on land abandoned due to pollution, the impact of soil pollution on agricultural productivity, for instance, is estimated to correspond to a productivity loss of between 15 and 25 percent.

Healthy soil provides important ecosystem services. Soil is the largest active source of carbon storage, for instance, after the oceans and one cubic meter of healthy soil can store almost 600 liters of water. The biodiversity of soil contributes to nutrient and carbon cycling as well as pest and disease regulation while serving as a source of the pharmaceuticals that help us stay healthy. However, when soil is polluted, recovering it is almost impossible in our time frame, as it takes around 1,000 years to form just 1 cm of topsoil.

The Food and Agriculture Organization (FAO) of the United Nations indicates that around 33% of the world's soil is moderately to highly degraded. Soil pollution is classified into two main categories: point source pollution and diffuse pollution. Point source pollution refers to the pollution of soil where the source and the reason of pollution is easily identified, such as where it is due to disposition of heavy metals or direct toxic waste disposal from industrial or agricultural activities. Diffuse pollution, on the other hand, indicates the transport of pollutants through air -soil-water systems. A major difference between the two is that while the severity and the extent of diffuse pollution is generally unknown, point source pollution is easier to pinpoint and hence avoid. A major example of diffuse pollution where the source is known is the Chernobyl disaster of April 1986 in Eastern Europe, which led to high concentrations of radionuclides even in remote areas of North America and Eastern Asia, which will be present in the soil for centuries.

Soil pollution changes the biodiversity of the soil, reducing soil organic matter and hence its capacity to act as a natural filter, leading to contamination of living organisms that feed on plants as well as the pollution of groundwater. Furthermore, the antibiotics that extend our lifespans seep into the soil, leading to the emergence of antimicrobial resistant bacteria. According to the FAO, this results in 700.000 deaths annually – a figure predicted to increase further and surpass cancer deaths by 2050.

Preserving and restoring this precious natural capital, therefore, is a vital duty that falls on all of us to ensure that future generations and our planet be healthier. Small behavioral changes such as making sustainable food choices, better recycling of chemicals and being mindful of antibiotic waste, using home composting and pursuing more sustainable agricultural practices on a larger scale would go a long way in providing a solution to this silent crisis.

Clean soil, safe food:

The food security aspect of soil pollution

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While pollution affects many areas of our lives, some of these effects can extend to our dinner table. As noted in the 2021 report prepared by the United Nations Food and Agriculture Organization (FAO), our land, which is the source of 95% of our food, are under threat due to pollution caused by industry, agriculture, mining and urbanization. The effects of pollution are not limited to the environments in which it occurs. Pollutants also have the potential to negatively impact global food systems and the economy.

Soil pollution is defined as "the presence of a chemical or substance that has adverse effects on any organism at a higher than normal concentration in an area or in soil where it should not be present". There are many reasons for the source of these chemicals and pollutants, from industry to improper waste disposal to agricultural activities. On the other hand, agricultural activities also have the potential to be negatively affected by soil pollution.

The main negative effects of agricultural activities on the soil are caused by pesticides and fertilisers. Agricultural pesticides used to protect crops from pests can negatively affect not only harmful organisms but also many living things, including humans. The long half-lives of such treatments may also result in their concentration throughout the food chain. Similarly, fertilizers which might help increase productivity can become pollutants if used excessively, disrupting the balance of the ecosystem that mixes with the natural environment, negatively affecting biodiversity. In addition to these factors, the use of wastewater for irrigation purposes, plastic waste and waste produced by rural communities can also have a negative impact on soil pollution.

On the other hand, the chemicals released by pollutants into the soil determine the quality and quantity of the food we consume. It is pointed out that the harmful chemicals we are exposed to due to the food we consume can have many negative effects on human health, from developmental problems to kidney problems. In addition, soil pollution may reduce the fertility of the soil and reduce yields. This effect is estimated to be around 15-20%. Crop failure places upward pressure on food prices, limiting access to food. The economic effects of soil pollution are not limited to this; lower productivity is an important risk factor for millions who earn their living from agriculture.

Another point that should be noted in regard to soil pollution is that this pollution may constitute a secondary source of emissions for water bodies. This multifaceted relationship between pollution types also requires a holistic approach to solve the problem.

In a world where hunger has become widespread since 2019 due to geopolitical tensions and shocks such as the Covid-19 pandemic, the world is also faced with the pressure created by the increasing population. According to estimates by the World Resources Institute, by 2050, food production must increase by 56% while the population increases by 43.5% compared to 2010 levels, reaching 10 billion. In this view, it seems necessary for all stakeholders, from farmers to governments, to come together to strengthen the sustainability of our food systems in order to reduce the risks posed by soil pollution on food security. For healthy and safe foods accessible to everyone, it is necessary to address this problem from an ecosystem perspective!

Water is Never Just Water

An important dimension of our pollution problem stands out as water pollution, as it affects both our ecosystems and human health. According to the United Nations (UN), as of 2022, approximately 2.2 billion people do not have access to safely managed drinking water. The economic value of water obtained from freshwater ecosystems is around 58 trillion US dollars as of 2021, equivalent to 60% of the global gross domestic product (GDP) in the same year.

Agricultural and industrial waste, oil, plastic, sediment and salts from irrigation, nutrients used in agriculture, and pesticides in short, all our modern activities pollute water. Another important cause of water pollution, especially in developing regions, is large amounts of untreated industrial and domestic wastewater. This wastewater, which contains oil, grease, plastic waste, chemicals and sewage waste from both industrial and domestic sources, not only reduces the quality of the water we use in our homes, but also increases ecosystem degradation. In addition, extreme weather events such as floods, droughts or sea level rise, and increasing groundwater salinity due to the growing ecosystem crisis also affect the quality of our water.

In addition to agriculture and industry, we as individuals also play a part in polluting our waters. What we do to clean our homes, cars and dishes can have a polluting effect on our water resources. Excessive use of detergents, the enemy of stubborn stains, does not get along well with the quality of water in rivers, seas and lakes either.

The effects of this pollution, which is fed from different sources, are similarly multifaceted. The World Bank emphasizes that water quality is directly related to economic growth, as deteriorating water quality in regions where water is extremely polluted risks reducing economic growth by 33%. In terms of agricultural production, it is seen that the pollution of water used in irrigation causes a decrease in food production and a decrease in the nutritional value of our food. The health effects of water pollution cannot be ignored either. For example, it is estimated that diarrhea cases resulting from pollution in drinking water, inadequate hygiene and sanitation have caused the death of 829,000 people in the world as of 2021.

So what does it take to combat water pollution, which causes such negative developments in terms of economy, environment and health? The solution to this multifaceted problem requires the involvement of many stakeholders. What we can do as individuals is to take a critical look at our actions that cause water pollution and limit them as much as possible. Minimizing the damage caused by activities such as agriculture and industry, which pose an even greater threat to water quality and quantity, requires a collective effort. As such, steps such as reducing chemicals used in agriculture and purifying polluted water released as a result of industrial activities stand out in combating water pollution. In this context, many actors, from governments to companies, from societies to individuals, can be crucial regarding water pollution. This makes protecting water and keeping it clean a collective duty.

Climate Finance

Europe Needs More Funding to Meet Climate Targets

A recent report by the European Round Table for Industry (ERT) found that Europe needs to invest EUR 800bn in energy infrastructure by 2030 to meet its climate targets and maintain competitiveness, with a total of EUR 2.5 trillion required by 2050. While private investment incentives are lacking, urgent policy action is needed to attract necessary funds, according to the ERT. The pace of decarbonization will determine future competitive advantages, with significant funding gaps remaining, especially in power grid investments.

Industry leaders stress that such massive investments cannot rely solely on the private sector and are calling for government support amidst the economic challenges. The EU's EUR 800bn post-pandemic recovery fund is seen as a crucial source of funding for green infrastructure projects, including carbon capture and storage. Nevertheless, legal challenges remain could hold up plans to divert funds established for Covid recovery into green projects .

Access to low-risk capital and the restoration of the single market are highlighted as essential for Europe's competitiveness and economic growth against a backdrop of global challenges, including aggressive industrial policies from China and the US.

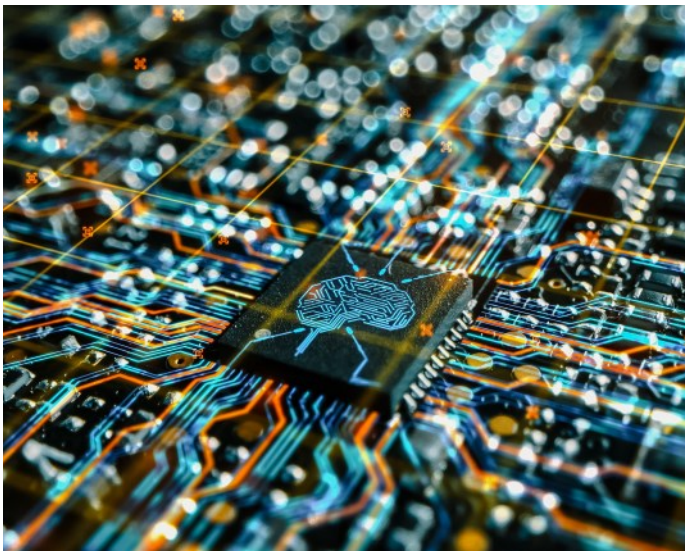
The average temperature in Turkey was recorded 1.5˚C and 4.3˚C above seasonal norms in March and April, respectively.

Global Energy Transition Toll Estimated to Reach Around USD 4 trillion Annually

While Climate Policy Initiative is projecting that USD 9 trillion in annual climate financing would be needed by 2030 on a global basis, global asset management company BlackRock estimated in its latest Investment Institute Transition Scenario that the global transition to green energy would require USD 4 trillion annually by the mid-2030s, double previous expectations. BlackRock emphasizes the importance of public-private partnerships, especially in the Asia-Pacific region, which is central to energy investment opportunities. While USD 1.8 trillion was invested in energy transition projects last year, an USD 18 trillion gap remains in reaching the 2030 target within the remaining six years. Data compiled by BlackRock indicates that a total of around USD 19 trillion has already been invested into energy transition projects.

The asset management company sees potential in various risk classes including low risk investments in core energy infrastructure as well as potentially more risky endeavors such as late-stage venture capital and private equity. Nevertheless, BlackRock stresses the need for alignment between government action, companies and communities when it comes to managing these risks. Blended finance and policy changes are highlighted as crucial drivers to mobilize funds and render green assets investable within existing portfolios. Additionally, BlackRock identifies the importance of talent development and risk frameworks to achieve the green financing goals.

Powering Artificial Intelligence



Big tech firms, including Alphabet, Amazon and Microsoft, are heavily investing in data centers to accommodate the growing demands for artificial intelligence (AI). Between January and March, these giants collectively spent USD 40 billion on infrastructure. Meta, despite lacking a cloud business, anticipates USD 40 billion in capital expenditure on AI-related projects this year. The comparison with the energy sector is fitting because AI requires immense processing power, translating into vast electricity consumption. JPMorgan Chase estimates that tech firms consumed as much electricity in 2022 as Colombia, with this figure set to double by 2026. This surge is straining electricity providers, urging utilities to invest in green energy sources. Recognizing this need, Big tech is increasingly investing in renewables. Microsoft, for instance, partnered with Brookfield to build renewables capacity, aiming for 100% clean electricity by 2030. Innovative solutions like microgrids and batteries have been proposed to tackle the intermittency of renewables. Additionally, tech firms are exploring nuclear and geothermal energy, with Google venturing into enhanced geothermal power and AWS and Microsoft eyeing nuclear reactors for backup power. The AI industry's ambitious power initiations include nuclear fusion and solar modules that store heat. These investments aim to meet the soaring energy demands of AI, which continues to reshape industry and society.

Ecosystem 101

contamination

refers to a concentration of a chemical or substance which is in excess of its naturally occurring level, but not a level which would necessarily cause harm

pollution

refers to the presence of a chemical or substance which is out of place and/or present at a higher -than-normal concentration which has adverse effects on any non-targeted organism

soil

the upper layer of the Earth's crust transformed by weathering and physical, chemical, and biological processes and composed of mineral particles, organic matter, water, air and living organisms

food security

refers to the physical and economic access to sufficient, safe and nutritionalfood by all people and at all times which meets their dietary needs and food preferences for an active and healthy life

waste management

refers to all actions and plans to manage waste from minimizing its production to composting or recycling

black carbon

produced both naturally and by human activities such as emissions from diesel engines, cookers, wood burning and forest fires, black carbon differs from carbon dioxide as its particles strongly absorb sunlight and give soot its black color but remains in the atmosphere for only a few weeks.

Climate Justice

What Happens If a Country Completely Sinks?

The repercussions of the enduring ecosystem crisis are already changing our daily lifestyles. Nevertheless, the effects are not felt uniformly across board. Often those who are benefiting at the expense of our ecosystems and our collective future are not the ones grappling with increasing temperatures and rising sea levels. On the other hand, for more vulnerable countries, such as the small Pacific Island nation Tuvalu with a population of around 11,500, the challenges are far more intense and immediate. With scientists predicting the country will end up uninhabitable by 2050, Tuvalu is now faced with the unique challenge of preserving its future status as a country.

Located to the North East of larger countries such as Australia and New Zealand, Tuvalu is one of the many small Pacific Islands near Fiji, Tonga, Vanuatu, Samoa and Kiribati . The country now faces an existential crisis due to the sea levels which have risen by more than 15 centimeters over the last 30 years. Given the pace of the rise in sea levels, Tuvalu may sink completely by the end of the century.

As a result, Tuvalu's existential crisis comes down to the question of whether or not it can continue to retain its status as a country. According to international law, statehood can only be recognized if a country has a permanent population, a defined territory, a government, and capacity to enter into relations with other states. This raises the question of what happens if a country loses its territory to rising seas?

In tackling this crisis, Tuvalu amended its constitution to assert that the country would exist 'in perpetuity' even if its territory disappeared and that it would consider becoming a 'digital nation' that would provide governmental services and preserve cultural traditions. It also expects to retain its exclusive economic zone to be able to fish and mine in an area up to around 370 kilometers from its coastline. Amending the national constitution for this is one thing, but changing international law on statehood is

much more difficult. The fate of its nationals, on the other hand is even grimmer, as they will need to look into residency in other countries when their country disappears.

The devastating impacts of the ecosystem crisis are already with us, but they are immediate problems are only faced in remote parts of the world. That's why these nations are labeled "vulnerable". Nonetheless, it would perhaps be better to consider the legal repercussions of the ecosystem crisis before an existential problem materializes for today's less vulnerable.

Company Highlights

Iceland

Sustainability is one of the main pillars of long-term profitability for companies and many are taking responsibility for tackling the problem of pollution as well, among other components of overall sustainability efforts. The British food retailer, Iceland, is such company with more than 1,000 stores throughout the United Kingdom and Europe. The company employs around 25,000 people with earnings before interest, taxes, depreciation, and amortization (EBITDA) of £289 million in 2023.

Aiming to go above and beyond mere profitability endeavors, Iceland has targets in place to reduce food waste, plastic pollution and its carbon footprint. In line with these targets, the company managed to reduce food waste by 19.2% in 2023 compared to the 2018 baseline, while slashing its scope 1 and 2 carbon emissions by 74% compared to the 2011 baseline. Iceland also mapped its scope 3 emissions for the 2020-2021 period and is aspiring to reach total carbon emissions reductions of 60% by 2030 and a 100% reduction by 2042.

Iceland's work to minimize its plastic footprint is also ongoing. Apart from its work to remove plastic packaging from its own-label products, the company aims to completely remove polyvinyl chloride (PVC), polystyrene and black plastic from its products and use widely recyclable plastic such as HDPE, PE, PP and PET, replacing them with composite materials mainly made of paper. Iceland was also the first UK supermarket to annually publish its total plastic packaging footprint, which it has done since 2020. The company not only strives to remove plastic from its products and bags, but also works to remove plastic from in-store marketing material, reducing use of plastics by 71 tonnes with 22 tonnes of this reduction taking place 2022 – equivalent to 2.2 million 500ml plastic bottles. Iceland also achieved a 38% reduction the use of plastics in its own label packaging by the end of 2023 with a 13% reduction from overall packaging by the end of 2022.

In tackling plastic waste, the company is also supporting community activism through initiatives such as placing recycling centers for its customers in its stores as well as waste collection activities in cooperation with other charities. These efforts resulted in the collection of around 790 tonnes of waste in 2022.

A New Financing Mechanism for Plastic Waste

Companies are pushing for plastic pollution reduction credits to be incorporated into the first legally binding United Nations (UN) plastics treaty, despite concerns from environmental groups over potentially funding harmful waste solutions like burning. French food products company Danone has explored the use of such credits to recover tens of thousands of tonnes of plastic in Indonesia but halted the plans due to local complaints. Led by petrochemical companies, lobbying efforts aim to introduce concessions to the UN treaty.

Plastic offsets, like carbon offsets, theoretically allow companies to balance collected plastic waste against their production, but there have been concerns over false solutions. Stakeholder criticism led to the suspension of projects like the one proposed by Danone. While plastic credits are advocated by organizations like Verra, a carbon credit certification company, stakeholders stress they cannot replace comprehensive waste mitigation strategies across the whole value chain.

In Short...

Loss of Nature Impacting Economic Growth

According to a study published by the Green Finance Institute (GFI), loss of nature may slow the United Kingdom's economy, leading to a projected 12% reduction in the country's GDP by 2030s. This amount is estimated to be more than the economic impact of the 2008 financial crisis that led to a 5% decrease and the COVID-19 pandemic, which cost the country almost 11% of its GDP in 2020. The study indicates that if no steps are taken to slow degradation of the ecosystem, the risks to the financial systems and the wider economy could reach between £150 and £300 billion.

Coal Phase Out Agreement at G7

In late April, G7 energy and climate ministers committed to phasing out existing unabated coal power generation in energy systems during the first half of 2030s. The decision is in line with the final statement from the COP28 urging countries to transition away from coal, oil and gas. G7 countries could not agree on a specific timeline, however, given Japan's relatively heavy reliance on coal, leading to criticism regarding the urgency of the issue.

EU Members Can Now Be Sued for Dirty Air

Recent European Court of Justice rulings that found around ten EU countries guilty of illegal air pollution now pave the way for the EU citizens to sue their governments for financial compensation due to the adverse health effects of air pollution above pre-designated limits. Individuals claiming compensation should prove the direct link between air pollution and the damage inflicted on their health.

Slow Progress in Plastic Pollution Negotiations

Progress in the plastic pollution negotiations held in Ottawa in late April is reported to have been slow ahead of the final round of talks scheduled to take place in Busan, South Korea starting on 25 November. Debate has mainly lingered on whether to limit plastic production to a sustainable level or focus on plastic waste management and novel production methods. Plastic production is expected to triple by 2050, whereas existing production levels exceed the world's current capacity to recycle plastics and toxic plastic chemicals.

Africa Looking for Record World Bank Financing

African leaders are urging rich countries to increase their contributions to the International Development Association (IDA), a World Bank facility that provides low-interest loans for development and climate change initiatives in developing nations. Kenya's President, William Ruto, emphasized the urgent need for at least $120 billion in pledges to address economic instability, climate emergencies and environmental disasters such as floods and droughts. The IDA, which operates on a three-year cycle, offers low-interest loans to 75 developing countries, primarily in Africa, supporting initiatives ranging from energy access to infrastructure development. For the first time this century, half of the 75 countries in the IDA are lagging behind in income growth compared to the wealthiest economies.

Airlines being held to account by the EU for Greenwashing

The European Commission has launched an investigation into 20 airlines for potentially misleading green claims regarding emissions offsetting practices, prompting concerns over sustainability and transparency in the aviation industry. The airlines are under scrutiny over claims suggesting that carbon emissions from flying could be offset through environmental projects or sustainable jet fuels, with regulators questioning the scientific basis for such assertions. The investigation reflects broader regulatory efforts to address the environmental impact of aviation and ensure clearer, verifiable commitments towards achieving net zero carbon emissions.

Lesser Concrete in Cities for the Sake of Nature

Cities around the world are embracing depaving initiatives to replace concrete and asphalt with plants and soil, reducing flooding, boosting biodiversity and mitigating heatwaves. Projects in Portland (USA), Ontario (Canada) and Leuven (Belgium) demonstrate the benefits of depaving, which range from diverting rainwater to fostering community engagement, signaling a shift towards sustainable urban infrastructure. However, widespread adoption requires significant investment and policy support, highlighting the need for collective action and grassroots advocacy to realize the vision of

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