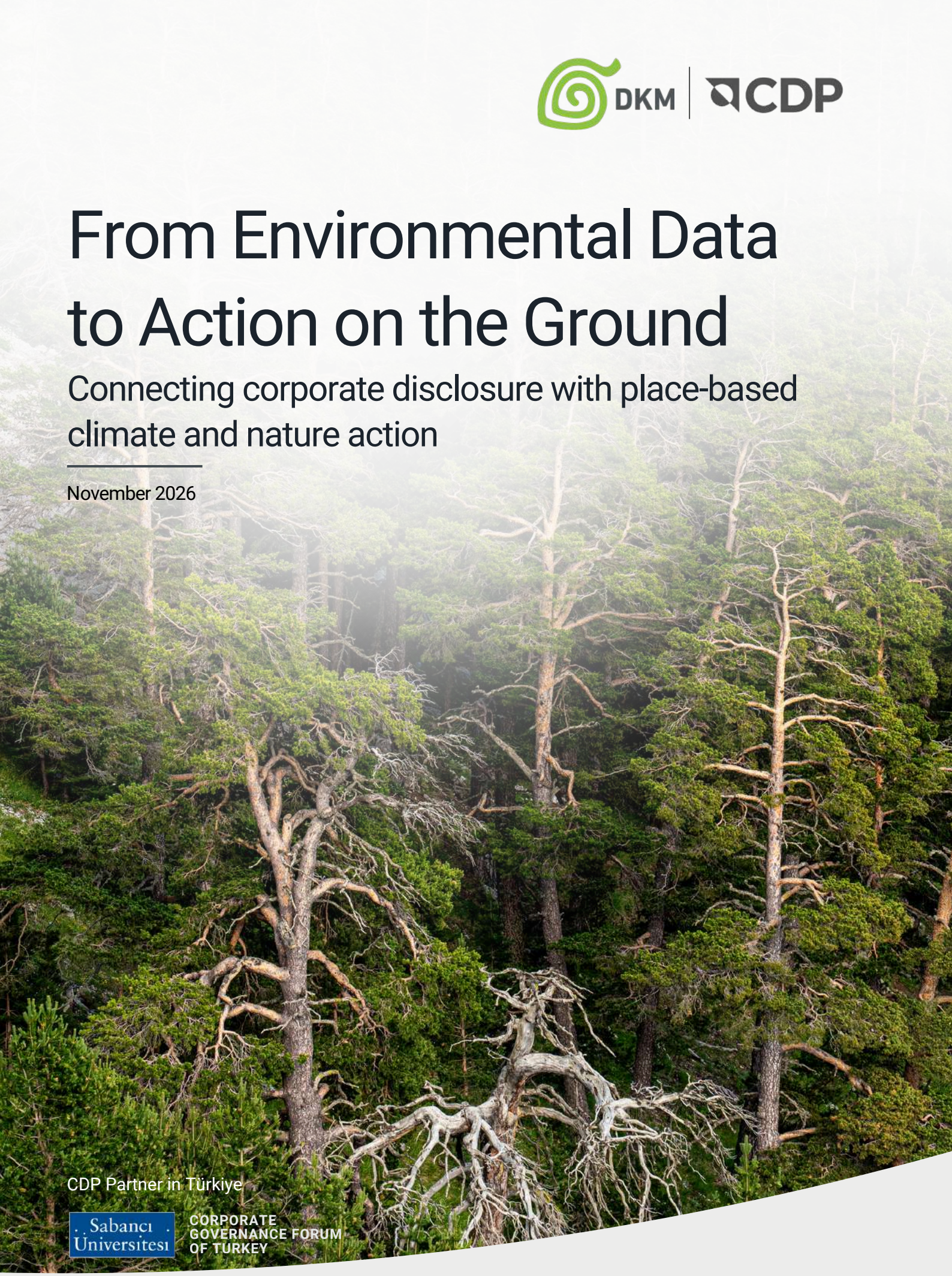
From Environmental Data to Action on the Ground

Connecting corporate disclosure with place-based climate and nature action

November 2026



CDP Partner in Türkiye

Sabancı Üniversitesi

CORPORATE GOVERNANCE FORUM OF TÜRKEY

From Environmental Data to Action on the Ground
A Joint White Paper

Prepared through the collaboration of Nature Conservation Centre (DKM) and CDP Türkiye

Important Note
This white paper brings together findings from CDP Türkiye 2025 Climate and Nature Report, DKM's scientific expertise and field experience, and insights from the From Data to Field webinar series.

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Executive Summary

Nature and the ecosystem services it provides are fundamental to climate resilience, human well-being and long-term economic stability. Climate change, biodiversity loss and land degradation are interconnected pressures on the ecosystems on which societies and economies depend. Essential ecosystem functions, including water regulation, soil fertility, carbon storage and pollination, are increasingly at risk.

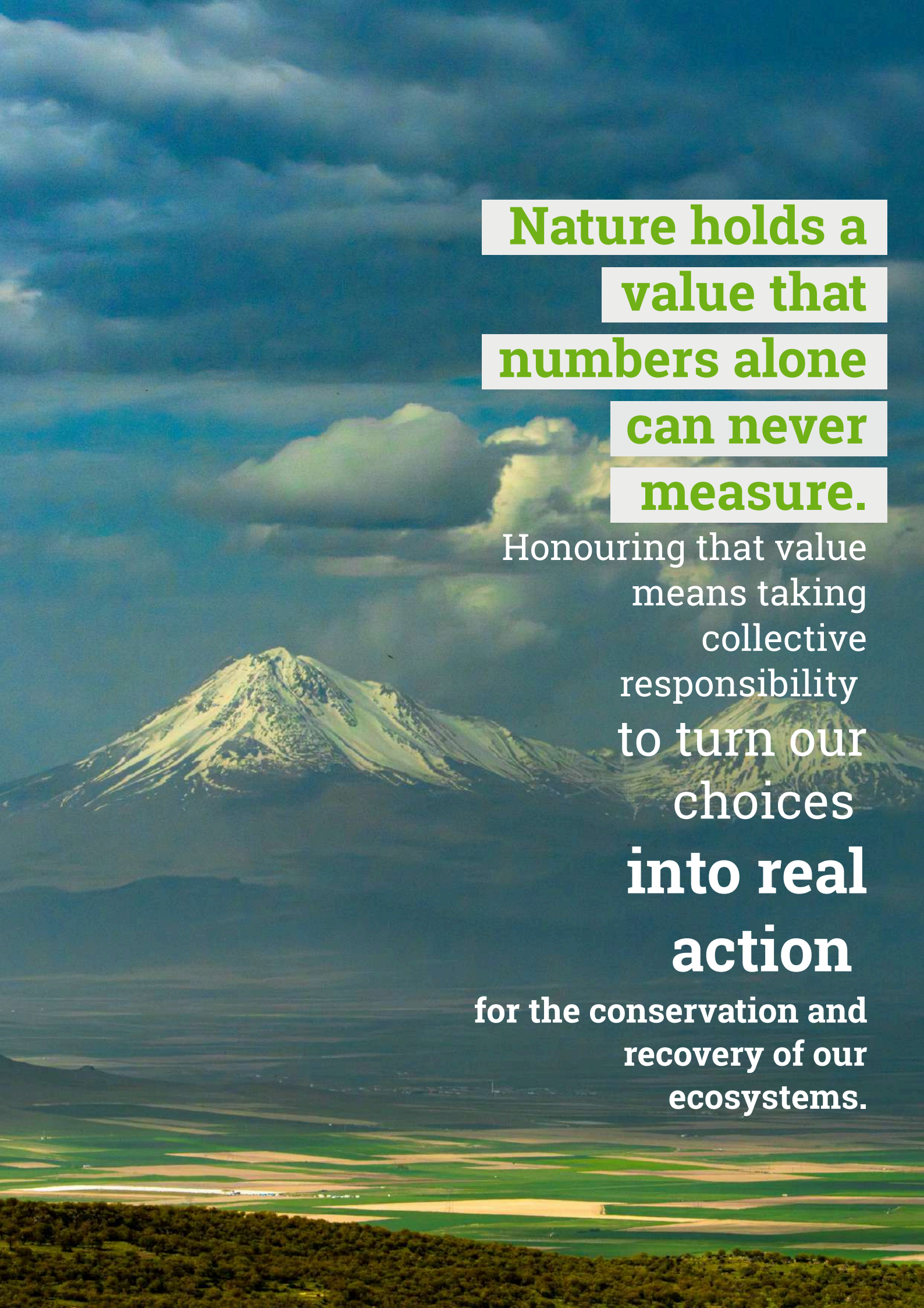
Businesses both depend on nature and influence its condition. Their activities affect ecosystems through value chains, land use and product life cycles, often across landscapes and river basins that extend beyond their operational boundaries. Understanding and managing these relationships requires looking beyond individual facilities and considering the wider ecological systems in which businesses operate.

While corporate environmental disclosures can highlight environmental risks and commitments, they do not necessarily reflect the priorities and requirements of biodiversity conservation and restoration. Evidence from CDP Türkiye's 2025 Climate and Nature Report illustrates this challenge: corporate management and reporting practices are relatively well established for climate change and water security, while biodiversity, forests and plastics remain less developed. Even where risks are identified and targets are set, the extent to which reported activities contribute to measurable environmental improvements is often unclear.

This white paper addresses the decision-making gap between corporate reporting and responsible environmental action. Bringing together CDP Türkiye's expertise in corporate environmental disclosure with the Nature Conservation Centre's (DKM) science-based approaches and field experience, this report examines how corporate environmental data can inform effective action at the river basin and landscape scales. By connecting corporate evidence with conservation science and field experience, it helps policymakers and businesses identify ecological trade-offs and engage relevant expertise before turning commitments into projects. The analysis highlights the need for locally appropriate interventions, stronger integration of environmental priorities across value chains, and monitoring that goes beyond reported activities to assess actual ecological outcomes.

With the Conferences of the Parties to all three Rio Conventions taking place in 2026, there is an opportunity to strengthen coherence across climate, biodiversity and land degradation objectives. COP31's Rio Synergy priority promotes integrated approaches, while its Climate Implementation Bridge (BRIDGE) initiative seeks to close the gap between climate commitments and implementation. Together, these priorities reinforce the need to advance climate action without creating additional pressures on biodiversity, land and ecosystems. They also offer an opportunity to connect corporate environmental commitments more closely with national priorities, local ecological needs and practical implementation.

Ecological expertise must shape implementation, not simply assess it afterwards. Collaboration between conservation organisations, businesses, public authorities and local communities can help integrate ecological safeguards into project design and sustain adaptive management beyond the corporate reporting cycle. Ultimately, progress should be measured not only by the commitments companies make or the activities they undertake, but by their contribution to healthier ecosystems, more sustainable resource management and long-term resilience.


Nature holds a value that numbers alone can never measure.
Honouring that value means taking collective responsibility
to turn our choices
into real action
for the conservation and recovery of our ecosystems.



1. Background

Corporate environmental reporting in Türkiye has advanced considerably, particularly in relation to climate change and water security. Companies are increasingly assessing environmental risks across their operations and value chains, establishing management systems, setting targets and making commitments. Yet progress in environmental reporting does not necessarily reflect equivalent progress in addressing environmental challenges at the local level. An important question, therefore, is how the information companies disclose can inform practical decisions and action at the facility, river basin and landscape scales.

The CDP Türkiye 2025 Climate and Nature Report provides a valuable evidence base for exploring this question. Among companies reporting through CDP, environmental disclosure and management practices are relatively well established for climate change and water security, while approaches to biodiversity, forests and plastics remain less developed. This uneven progress raises a question that goes beyond identifying risks and setting targets: how can corporate commitments and activities be more closely aligned with environmental priorities?

Understanding what corporate environmental disclosures mean in practice requires different considerations across environmental issues. Progress in climate change mitigation can be tracked through emissions indicators, whereas assessing climate adaptation and water security also requires an understanding of local risks and river basin conditions. For biodiversity conservation and efforts to prevent land degradation, the critical questions are where activities take place, which environmental pressures they address and how well they align with conservation priorities—not merely whether companies report undertaking them. Similarly, a material may be technically recyclable without actually being collected and recycled after use.

These distinctions highlight the importance of assessing reported environmental commitments in the context of local environmental conditions and the practical realities of implementation.

Against this background, CDP Türkiye and the Nature Conservation Centre (DKM) have undertaken a joint initiative to explore opportunities for translating corporate environmental reporting into more tangible conservation outcomes on the ground. This joint initiative combines CDP Türkiye's expertise in corporate environmental disclosure and data analysis with DKM's more than two decades of scientific research and practical field experience in climate change adaptation, biodiversity conservation, integrated water and river basin management, sustainable forestry and nature-based solutions.

In preparation for COP31, two webinars are organized as part of the “From Data to Field” series. The first, held on 29 September 2026, focused on climate change and water security, while the second, held on 26 October 2026, addressed biodiversity and forests. The discussions brought together representatives from public institutions, academia, business and civil society to explore opportunities and challenges in aligning corporate environmental commitments with local needs and translating them into practical action.
This white paper draws on findings from the CDP Türkiye 2025 Climate and Nature Report, selected company examples, DKM's relevant research and field experience, and insights shared by webinar participants. No new data is collected specifically for this publication. The corporate environmental information discussed is based on companies' self-reported disclosures to CDP, which have not been independently verified as part of this study. The paper neither directly measures the environmental impacts of reported corporate activities nor seeks to establish causal links between these activities and observed environmental changes.

Throughout this publication, “action on the ground” refers to the ways in which corporate environmental information can inform planning, decision-making and implementation processes that respond to local

needs. It should not be taken to imply that the implementation or environmental outcomes of activities reported by companies have been independently verified for this publication.

The central question guiding this white paper is:
How can corporate environmental information inform practical action that responds to local environmental priorities and contributes to meaningful, measurable conservation outcomes on the ground?

By examining climate change, water security, plastics, biodiversity and forest degradation together, this publication aims to identify where corporate environmental reporting can provide a useful foundation for action, where important gaps remain and how corporate environmental strategies can be better aligned with environmental needs at the landscape and river basin scales beyond the facilities.





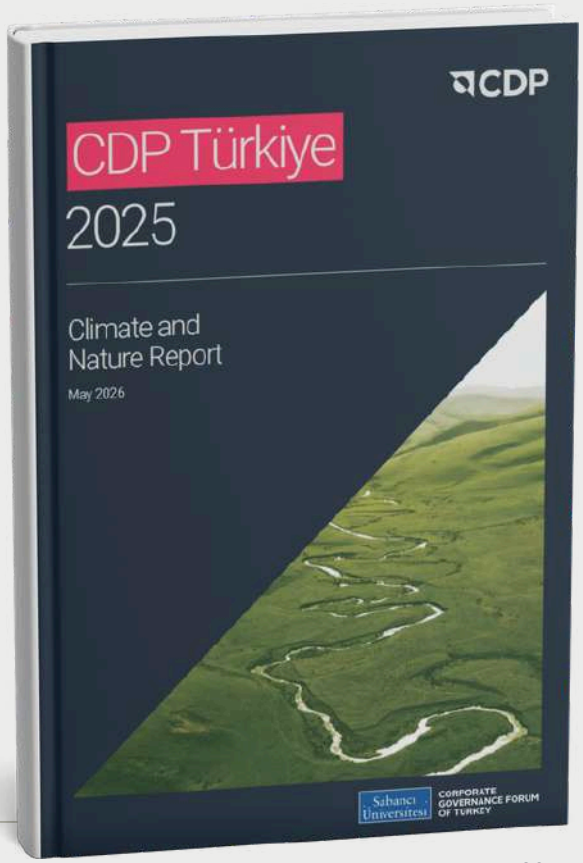
2. CDP Türkiye 2025: Climate and Nature Report Overview

CDP Türkiye 2025 Climate and Nature Report examines how companies identify and assess environmental risks, impacts and opportunities, and the extent to which these are integrated into corporate strategies, targets and management processes. The report draws on disclosures from 151 companies in Türkiye that responded to CDP's 2025 capital markets request. The core analysis covers 132 companies, while the Water Security and Forests analyses are based on responses from 92 and eight companies, respectively. The findings should therefore be interpreted as a reflection of the management approaches and activities reported by participating companies, rather than as a representative assessment of environmental performance across Türkiye's corporate sector.

One of the report's key findings is that despite the considerable progress made in corporate environmental management, not all environmental issues have been integrated to the same extent. According to CDP Türkiye's 2025 disclosure data, 98% of companies in the core sample report having processes in place to identify, assess and manage environmental dependencies and/or impacts. The findings indicate that corporate environmental management is more established in climate change and water security, while more substantial gaps remain in target-setting, implementation and performance monitoring across biodiversity, forests and plastics.

The table on the next page summarises the key findings across the five environmental themes.

The following sections examine these findings in greater detail, drawing on company examples featured in the CDP report, DKM's research and field-based experience, and perspectives shared during the “From Data to Field” webinar series. Together, these sources inform an assessment of how corporate environmental disclosures can be linked to local conservation priorities and achieve concrete outcomes on the ground.



Environmental Theme	Key Findings and Supporting Observations
Climate Change	**Management systems are well established, but target ambition and implementation remain uneven.** Emissions measurement and reporting are widespread and largely embedded in corporate processes. However, alignment of emissions reduction targets with science-based pathways, the scope of transition plans and year-on-year emissions performance vary considerably across companies. Lack of coherence with resilience studies also requires substantial improvement.
Water Security	**CDP Leadership performance is comparatively strong, but gaps remain in water withdrawals, discharge management and basin-level action.** Water-related risk identification and target-setting are widespread. Nevertheless, high exposure to water stress, uneven coverage of discharge management and limited integration of basin conditions into corporate targets highlight areas requiring further attention.
Biodiversity	**Corporate engagement is growing, but performance indicators, conservation data and systematic monitoring remain limited.** Companies are increasingly reporting biodiversity-related activities and identifying priority geographical areas. However, the ecological background of performance indicators, qualitative measures of biodiversity and site-specific assessments across value chains remains less developed.
Forests	**The sample is small, and planned measures are more widespread than current implementation.** Traceability practices are in place for some forest-risk commodity supply chains, but assessments of land degradation- and conversion-free sourcing remain limited. Participation in collaborative initiatives at the landscape level is also low. These findings should be interpreted with caution given the sample of eight companies.
Plastics	**Targets focus primarily on packaging, while data on end-of-life management and actual circularity remain limited.** Companies report efforts to track plastics use and material characteristics, but end-of-life material flows are less well documented. In particular, monitoring of actual recycling processes and plastic leakage into the environment remains underdeveloped.



3. Climate Change and Water Security: From Reported Progress into Local Action

CDP Türkiye Findings

Corporate disclosure on climate and water in Türkiye has reached high levels of participation, yet execution gaps continue to limit real-world impact. Insights from CDP Türkiye's 2025 Climate and Nature Report highlight a clear divide: companies excel at tracking direct emissions (100%) and facility water volumes, but struggle to deliver consistent annual emissions reductions (45%) or manage acute water stress (82%) across their wider value chains.

1. Climate Change: Corporate Maturity and Emissions Performance

Climate change represents the most mature pillar of corporate environmental management in Türkiye, with greenhouse gas (GHG) accounting firmly embedded in business operations. Among the 132 disclosing companies, 100% report Scope 1 emissions, 99% disclose location-based Scope 2 emissions, and 98% track Scope 3 emissions. Data credibility is similarly high, with third-party verification covering 95% of Scope 1 and 2 disclosures and 88% of Scope 3 data.

While target-setting is widespread—80% of companies have active absolute reduction targets and 62% have net-zero commitments—science-based validation lags behind. Only 52% of absolute targets align with a 1.5°C pathway, and just 23% hold approval from the Science Based Targets initiative (SBTi), dropping to 12% for net-zero targets. Scenario analysis is widely used to inform strategy, with 83% applying physical climate scenarios, 75% using transition scenarios, and 70% maintaining a 1.5°C-aligned transition plan. However, these plans rarely integrate broader nature dependencies: only 45% incorporate water-related issues, and just 25% factor in biodiversity.

On the ground, 95% of companies have implemented active decarbonisation initiatives during the reporting period, backed by dedicated budgets for energy efficiency (58%), general emissions reduction (36%), and low-carbon R&D (32%). Measures focus primarily on solar PV systems (36%), process optimisation (25%), and lighting upgrades (21%). Yet, these investments have not translated into consistent annual reductions: compared with the prior year, 46% of companies saw their combined Scope 1 and 2 emissions rise—largely reflecting shifts in production volume and energy demand—while 45% achieved reductions.

2. Water Security: Operational Maturity vs. Basin-Level Exposure

Corporate water management shows relatively strong governance, yet businesses remain heavily exposed to water stress. Among the 92 companies analysed for water security, 82% withdraw water from water-stressed regions, and 66% source more than half of their total water from these vulnerable areas. Despite this exposure, risk visibility stops largely at the factory gate: 86% assess water risks in river basins tied to their direct operations, compared to just 10% upstream and 3% downstream.

A similar operational bias shapes corporate water targets. Although 80% of companies set water-related goals, these focus predominantly on direct operations (64%) and basic volume metrics such as withdrawals (58%) and discharge (20%), while efficiency (10%), recycling/reuse (8%), supplier engagement (8%), and basin-level targets (1%) remain marginal. Likewise, while all reporting companies track core water volumes, facility-wide monitoring of water pollutants (42%) and recycled/reused volumes (46%) lags behind—even though 89% have procedures to classify pollutants.

Wastewater management relies heavily on external infrastructure: 79% discharge to third parties, and 61% transfer wastewater without on-site pre-treatment (while 10% report untreated direct discharge). Although third-party operators may treat transferred wastewater downstream, distinguishing on-site

treatment from external handling remains critical for transparency.

Finally, rising water costs are outpacing financial governance: while 41% of companies have increased water-related CAPEX and 49% have reported higher OPEX, only 36% apply an internal water price, and just 23% factor it into capital investment decisions.



DKM's Insights and Experience from On-the-Ground Implementation

DKM experts have combined conservation science, sustainable resource use, planning and field-based implementation across climate change adaptation, sustainable agriculture, integrated water and river basin management, and nature-based solutions for more than three decades. Its portfolio now spans nearly 200 projects, with a cumulative 7,500 days of fieldwork recorded by 2026. This work encompasses spatial environmental risk assessments, locally tailored interventions, pilot projects and the development of decision-support tools for natural resource management.

Spatial Climate Risk Assessment and Local Adaptation Priorities

The impacts of climate change on agricultural production vary according to local conditions, including soil characteristics, land use and water availability. For companies operating in or sourcing agricultural raw materials from drought-prone regions, understanding these physical climate risks at the local level is essential for managing potential disruptions to production and supply chains.

Identifying climate risks is only the first step; selecting ecologically appropriate interventions is equally important. Under the UNDP Climate Promise initiative (2020–2021), DKM contributed to assessments of sectoral climate risks across Türkiye's seven geographical regions. A related output, the Catalogue of Nature-Based Solutions, presents 72 solution fact sheets addressing environmental challenges across 25 river basins. By outlining the climate hazards addressed, potential co-benefits and implementation and maintenance requirements, the catalogue provides policymakers and businesses with a practical reference for evaluating nature-based responses to local environmental challenges.

The Enhancing the Climate Change Adaptation Capacity of Agriculture in the TRC1 Region Project illustrates how spatial analysis can inform adaptation planning. Combining climate projections with agricultural data, the project developed agricultural risk maps for 2050 and 2070 across Gaziantep, Adıyaman and Kilis. Field assessments and farmer consultations helped identify vulnerable production areas and develop adaptation options suited to local conditions.

Protecting Soil and Water Resources in Agricultural Production

Drought and increasing water stress threaten agricultural production and the reliability of supply chains dependent on agricultural commodities. At the same time, unsustainable irrigation practices can intensify pressure on freshwater ecosystems, particularly in water-stressed basins. For companies with agricultural supply chains, effective water management must therefore consider agricultural water use, soil health and water-based ecosystem services, alongside water consumption within their own operations.

Addressing these interconnected pressures requires scientifically informed practices adapted to local conditions. In the Konya Closed Basin, one of Türkiye's driest agricultural regions, the Agriculture of the Future Programme (2013–2016) introduced conservation agriculture practices, including direct seeding and windbreaks, supported by climate modelling and ecosystem services mapping. A total of 600 farmers have adopted some or all of the recommended practices. Building on this experience, the Climate-Resilient Agriculture Network Project (2020–2023) has applied approaches such as rainwater harvesting, soil moisture monitoring and precision irrigation under different agricultural conditions in Antalya, Konya and Şanlıurfa. Lessons from the three pilot initiatives were shared with more than 400 farmers, while the İklimTarım platform has recorded 67 farmer-reported climate-related agricultural hazard events.

Improving agricultural water-use efficiency also depends on appropriate irrigation scheduling and water application. In the Harran Plain, the Night Irrigation Project reported 3 billion litres of water savings and a 15–20% increase in crop yields through use of sprinkler irrigation at night. Subsequent work focused on GIS-based irrigation planning and soil moisture monitoring using tensiometers. Similarly, the Know More, Consume Less Project (2019–2020) in

Konya Ereğli explored irrigation planning based on crop water requirements and soil moisture conditions. These experiences highlight the role of conservation expertise, farmer participation and locally appropriate interventions in connecting corporate water commitments with agricultural practices. However, field-level water savings do not necessarily translate into improved water security at the basin scale. Their contribution to water security and ecological outcomes must be assessed in relation to overall water use, basin water balances and ecosystem water requirements.

Basin-Scale Management of Water Quality and Ecosystem Health

Water security depends on conditions across entire river basins, including water availability, water quality and ecological status. For businesses exposed to shared water risks, assessing cumulative pressures and identifying effective management responses requires reliable data, scientific modelling and coordination among water users.

The Modelling Tool for River Basin-Based Planning in Türkiye Project (2015–2016) provides an example of this approach. In the Büyük Menderes Basin, WFD Explorer, a decision-support tool developed by Deltares, was tested to assess the potential effects of alternative management measures on water-body status. The tool integrates hydrological, ecological and water quality modelling, while DKM contributed to spatial data preparation, GIS analyses and the development of management scenarios.

Reducing pollution at source is equally important. In the Sea of Marmara Basin, agricultural and industrial pollution places pressure on water quality and aquatic ecosystems. Through the Preventing Mucilage in the Sea of Marmara by Reducing Agricultural Pollution at Source Project (2021–2022), a multi-stakeholder governance model was developed for the Simav–Susurluk Sub-Basin. The model defines the roles of farmers, public institutions, local authorities and financial institutions in implementing and monitoring measures to reduce agricultural pollution, providing a framework for coordinated action across the basin.

Integrating Nature-Based Solutions into Agricultural Landscapes and Value Chains

As climate risks intensify, securing agricultural raw material supplies requires more than improvements at individual farm level. Protecting soil and water resources while maintaining production calls for landscape-scale approaches that integrate ecosystem conservation, restoration and sustainable land management. Their implementation depends on cooperation among stakeholders throughout agricultural value chains. The GEF-funded Nature-Based Solutions for Sustainable and Resilient Agrifood Systems Project (2026–2030), implemented by DKM in cooperation with FAO and Türkiye's Ministry of Agriculture and Forestry, aims to integrate nature-based solutions into wheat and livestock value chains. The project targets the restoration of 5,000 hectares of degraded land and improved management across 800,000 hectares of agricultural land and rangelands. Planned activities include multi-stakeholder collaboration platforms bringing together public institutions, businesses and producer organisations, alongside financial support systems, traceability, product labelling and branding mechanisms.

These measures are intended to integrate nature-based solutions into agricultural production and supply chains, helping align corporate sustainability commitments with local ecological priorities and supporting measurable environmental outcomes over time.



Key Insights from the Webinar

The first webinar in the "From Data to Field" series, jointly organised by CDP Türkiye and the Nature Conservation Centre (DKM), took place on 29 September 2026 under the title "Climate and Water: From Corporate Reporting to Impact on the Ground."

Co-moderated by Mirhan Köroğlu Göğüş, Country Manager of CDP Türkiye, and Dr. Uğur Zeydanlı, Chair of DKM's Board, the session brought together Aslıhan Korkmaz, Head of Department at the Directorate General of Water Management under Türkiye's Ministry of Agriculture and Forestry; Prof. Dr. Erhan Akça, soil scientist and Dean of the Faculty of Fine Arts at Adıyaman University; and Neslihan Akgün Ergüven, Sustainability and EHS Director at ÇİMSA. Drawing on public policy, scientific expertise and industry experience, the discussion explored how corporate environmental disclosures can inform practical action on climate change and water management.

Four key priorities emerged from the discussion:

Translating reliable data into locally appropriate action

Accurate and transparent water-use data were identified as essential for setting corporate water management priorities. The discussion emphasised the importance of detailed measurement and analysis to identify the specific needs of facilities operating under different geographical and operational conditions.

Moving from site-level water management to basin-scale approaches

Türkiye's Water Efficiency Certification Scheme, established under the Water Efficiency Regulation that entered into force on 27 December 2024, provides for the measurement and monitoring of water use and certification at three levels—Blue, Green and Turquoise—based on defined efficiency criteria. The discussion considered the scheme's contribution to improving the understanding of actual water use, alongside the role of regional planning and Provincial and Basin Water Boards. Participants also emphasised the need to involve different water users in collective planning and action at the basin level.

Managing water-related risks across supply chains

The discussion highlighted the need for companies to assess water-related risks beyond their direct operations and across their supply chains. Supplier self-assessments, remote reviews and on-site audits were identified as complementary approaches to understanding and managing these risks.

Recognising water's value beyond economic measures and its role in development

The discussion highlighted that valuing water more does not necessarily mean putting a higher price on it, underscoring the limitations of assessing water solely through financial costs or economic savings. Water management was framed not only as an environmental concern but also as a development issue closely linked to business continuity, occupational health and safety, competitiveness and societal well-being. This perspective emphasised the importance of considering the economic, ecological and social dimensions of water management together, while integrating soil–water relationships and shared basin-level needs into decision-making.

"Assessing water management solely at the level of an individual facility, company or province is not sufficient. Planning needs to take into account entire river basins and Türkiye's overall water potential. By considering the cumulative impacts of individual activities across a basin, we can identify risks and outcomes that might otherwise remain overlooked."

Aslıhan Korkmaz

"Each region in Türkiye has its own geographical and soil characteristics. Nature-based solutions should therefore be tailored to local conditions and resources, while building on practices that farmers already use or have traditionally used. For example, increasing soil organic matter can significantly improve water retention."

Prof. Dr. Erhan Akça

"A one-size-fits-all approach to water management does not work; solutions need to be tailored to local conditions. When we first started this work, we identified gaps in measurement and data visibility. We therefore launched a two-year project using digital meters and remote monitoring systems to improve the accuracy and accessibility of our water data. This enabled us to compare water consumption across facilities and develop targeted water-saving projects. Over the past five years, these efforts have helped Çimsa reduce its water consumption by nearly 40%."

Neslihan Akgün Ergüven

Overall Assessment

CDP Türkiye's 2025 findings indicate growing corporate capacity to identify water-related risks, monitor water use and set targets. However, this progress remains largely concentrated within companies' direct operations, while approaches addressing basin conditions and water-related risks across supply chains are less developed. DKM's field experience demonstrates that technical measures and planning tools are available to address climate and water risks, although their implementation at scale and the measurement of environmental outcomes remain uneven.

Discussions during the ”From Data to Field” webinar further highlighted the importance of integrated basin management, reliable monitoring and verification systems, and collaboration among stakeholders in translating corporate commitments into practical action. Taken together, these perspectives reveal a continuing gap between identifying and reporting corporate risks and targets, and demonstrating measurable environmental and social outcomes at the basin scale. Closing this gap requires moving beyond isolated company initiatives towards integrated approaches that consider water resources, ecosystems, production systems and local communities together.

1. Climate and Water Risks in Operations and Production Systems

Current Situation

Corporate reporting increasingly recognises the climate risks and their implications for business continuity. GIS, climate projections, basin water balances and vulnerability assessments provide tools for understanding how these risks vary across locations.

Limitations, Barriers and Gaps

Corporate risk assessments do not always capture the combined effects of climate change, water scarcity, water quality and changing basin conditions. Thesis-level water-use indicators alone may overlook the wider hydrological and ecological processes that determine water security.

Opportunities and Action Areas

Corporate climate and water risk assessments should incorporate basin-level information, climate projections, drought risks and ecological conditions. Spatial analysis and decision-support tools can help identify priority locations, assess exposure and vulnerability, and select interventions suited to local conditions.

2. Water-use Efficiency, Sustainable Production and Land Management

Current Situation

A range of technical and land-management practices that consider soil, water and land management synchronously can strengthen the resilience of the basins. These include irrigation scheduling based on crop water requirements and soil moisture, appropriate irrigation systems, rainwater harvesting, and precision irrigation. Conservation agriculture practices, such as direct seeding, maintaining soil cover, and reducing wind erosion, can also help preserve soil structure and moisture.

Limitations, Barriers and Gaps

Water-efficiency initiatives often focus on irrigation infrastructure without sufficiently addressing soil degradation, erosion and declining soil organic matter, which can undermine water retention and agricultural resilience. Furthermore, the availability of technology does not guarantee its adoption. High investment and operating costs, limited technical expertise and insufficient implementation capacity can prevent solutions from being scaled up.

Opportunities and Action Areas

Water-use efficiency should be addressed through an integrated approach combining soil management, agricultural practices and appropriate irrigation technologies. Technologies need to be adapted to local production conditions, made accessible and cost-effective, and supported by technical assistance, farmer training, demonstration projects and suitable financial mechanisms. There is a high number of competent agricultural extension officers with on-the-ground experience to promote and support these activities.

3. Water-related Risks and Impacts Across Supply Chains

Current Situation

Mapping supplier locations and assessing water use alongside local environmental risks can help identify priority production areas. Some companies have started extending water-risk assessments beyond their direct operations, although the availability and quality of supply-chain information remain uneven.

Limitations, Barriers and Gaps

Corporate disclosures generally provide greater visibility into direct operations than supply chains. On the contrary supplier declarations and self-assessments do not provide sufficiently detailed or verifiable information, particularly in high-risk locations. Limited traceability, fragmented data systems and differences in monitoring capacity make it difficult to assess actual water-related impacts of the supply chain.

Opportunities and Action Areas

Companies should progressively extend water-risk assessments and monitoring across their supply chains, prioritising suppliers in water-stressed or environmentally vulnerable basins. Long-term collaboration with suppliers, farmers and local stakeholders is essential to translate improvements in production practices into measurable benefits for water resources and ecosystems.

4. Integrated Basin Management, Water Quality and Ecosystem Health

Current Situation

Water resources are shared across sectors, users and ecosystems. Their availability and quality are shaped by climatic, hydrological, ecological and human pressures. Addressing these interconnected challenges requires planning and management at the basin scale. Türkiye has several planning instruments that provide a framework for this approach, including Integrated River Basin Management Plans, Basin Water Allocation Plans and Drought Management Plans. These instruments can help identify available resources, competing demands, environmental requirements and management priorities.

Limitations, Barriers and Gaps

Corporate water-management initiatives are not always sufficiently connected to existing basin plans and public-sector priorities. Individual projects may therefore generate local benefits without addressing wider pressures or contributing to coordinated improvements. Water management approaches focused primarily on quantity can also overlook pollution and ecosystem degradation.

Opportunities and Action Areas

Corporate water strategies should be aligned with Integrated River Basin Management Plans, Basin Water Allocation Plans and Drought Management Plans. These provide a basis for identifying priority areas, understanding competing demands and directing investments towards shared basin-level needs.
Companies should also consider measures beyond water savings, including pollution control at source, appropriate reuse of treated wastewater, improved agricultural practices and ecological monitoring for water ecosystem services.

5. Dialogue, Collaboration and Basin-level Governance

Current Situation

Integrated River Basin Management Plans and Provincial and Basin Water Boards provide mechanisms for responding to the needs of different water users. Corporate water stewardship initiatives increasingly recognise the importance of collaboration with public institutions, local authorities, suppliers and other stakeholders.

Limitations, Barriers and Gaps

Water-related challenges cannot be effectively addressed by individual companies acting independently. Fragmented initiatives, limited information-sharing and insufficient coordination can prevent companies from addressing common basin-level challenges. Dialogue and cooperation mechanisms are not always sufficiently established to support long-term joint action.

Moreover, interventions that overlook local livelihoods, agricultural production and the interests of different water users may face implementation challenges and fail to generate lasting benefits.

Opportunities and Action Areas

Companies should increasingly engage in basin-based collaboration rather than pursuing isolated initiatives. Such collaboration is particularly important in basins facing cumulative pressures from industrial and agricultural activities. Long-term stakeholder engagement can help ensure that interventions are technically appropriate, socially beneficial and aligned with local economic and ecological needs. In Türkiye, the Northern Aegean, Sapanca and Çorlu basins are particularly relevant examples for considering the interaction between industrial and agricultural water demands and the need for coordinated basin-level approaches.

6. Measurement, Verification and Long-term Environmental Outcomes

Current Situation

Corporate disclosures increasingly include indicators such as water withdrawal, consumption, discharge and recycling, providing a basis for tracking operational performance. Field-based initiatives also generate different types of evidence, ranging from quantified water savings and changes in agricultural productivity to climate risk maps, technical designs and governance frameworks.

Limitations, Barriers and Gaps

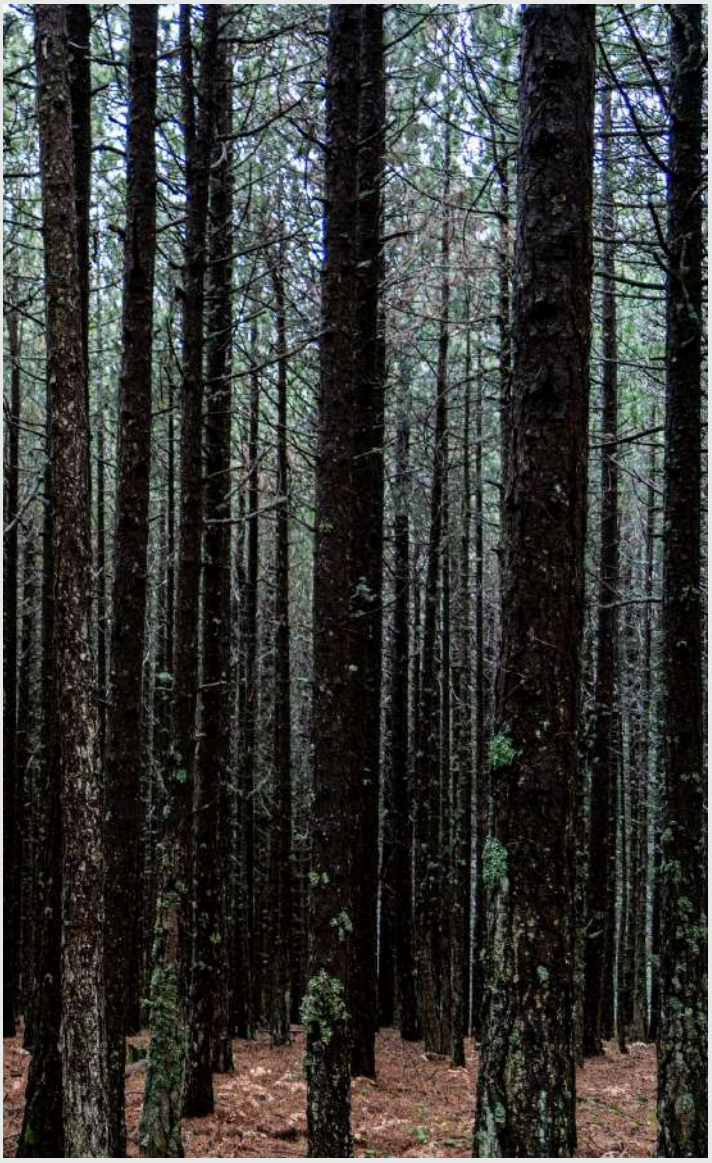
Assessing effectiveness requires clear baseline conditions, appropriate indicators and consistent monitoring over time. A volume-based approach may overlook whether interventions address actual basin-level challenges, generate lasting benefits or consider the needs of local communities and ecosystems. Water-based ecosystem services can deteriorate while the required volume of water is replenished.

Opportunities and Action Areas

A stronger measurement, reporting and verification infrastructure is needed to connect corporate commitments and project activities with measurable basin-level outcomes. This should include:

- Establishing robust baseline conditions before interventions begin.
- Defining indicators for water quantity, water quality and ecosystem health.
- Monitoring changes in water availability, consumption, return flows and ecological water requirements.
- Assessing impacts on water-related industrial production, agricultural production, local livelihoods and the wider local economy.

Water replenishment and offset programmes should adopt a broader, long-term perspective to contribute to improved water security and ecosystem resilience while generating tangible benefits for local stakeholders.





4. Biodiversity and Forests: From Data to Implementation

CDP Türkiye Findings

Corporate risk management in Türkiye has matured around climate change, yet critical blind spots remain across broader nature-related issues. Data from CDP Türkiye's 2025 Climate and Nature Report shows that while all 132 disclosing companies have processes in place to identify and manage climate risks, far fewer address risks linked to biodiversity (36%) and forests (11%).

1. Corporate Governance and Strategic Integration

Although 62% of companies include biodiversity in their environmental disclosures and 55% assign management-level oversight, this awareness rarely shapes core business strategy. Only 33% have embedded biodiversity risks into organisation-wide, multidisciplinary risk frameworks. Similarly, just 25% factor biodiversity into their climate transition plans, dropping to 10% for forests—underscoring a persistent disconnect between corporate climate and nature agendas.

2. Commitments, Implementation, and the Monitoring Gap

This strategic disconnect carries over into how companies execute and track their commitments on the ground. Nearly half of the companies (48%) are already taking action on biodiversity, with another 22% planning to follow suit within two years. Current efforts centre largely on operational and outreach measures—including land and water management (27%), education and awareness (27%), land and water conservation (24%), and species management (24%)—whereas systemic levers such as policy engagement (11%) and economic incentives (8%) remain underutilised.

Yet, on-the-ground action is seldom matched by rigorous outcome tracking. Only 32% of companies currently rely on biodiversity indicators to measure performance, though another 33% intend to adopt them within two years. Existing metrics span state-and-benefit (20%), response (18%), and pressure (14%) indicators. Without consistent ecological monitoring, companies struggle to verify whether their initiatives deliver tangible improvements in nature.

3. Value Chain Coverage and Spatial Risk Prioritization

Effective monitoring also depends on knowing where corporate activities intersect with nature, yet spatial visibility remains heavily skewed toward companies' immediate footprints. While 58% of companies have identified biodiversity-priority locations across their value chains (and 14% are underway), these assessments focus overwhelmingly on direct operations (69%), with visibility dropping sharply across upstream (37%) and downstream (15%) tiers.

A similar bias shapes the types of ecological risks companies prioritise. Spatial assessments predominantly flag acute water-related pressures—such as scarcity, flooding, or poor water quality (56%)—followed by areas of biodiversity importance (31%). Conversely, areas of high ecosystem integrity (8%) and critical ecosystem service provision (8%) receive minimal attention. This water-centric lens is equally apparent when mapping material dependencies, impacts and risks: water leads at 49%, well ahead of biodiversity (23%) and forests (6%). Ultimately, while Turkish companies are increasingly adept at pinpointing physical water risks within their own operations, broader ecosystem integrity and supply-chain nature dependencies remain largely overlooked.

DKM's Insights and Experience from On-the-Ground Implementation

DKM's biodiversity and forest work connects species conservation assessments, systematic conservation planning, restoration and the integration of ecological priorities into natural resource management. Across these activities, the central challenge is to move from identifying biodiversity values to shaping decisions about where to conserve, how to manage landscapes and how to evaluate results. The examples below illustrate this progression through DKM's technical publications and project experience.

From Biodiversity Data to Conservation Priorities: Red Lists and Systematic Conservation Planning

Land degradation and habitat fragmentation associated with agriculture, energy and infrastructure development place pressure on biodiversity and can create operational and financial risks for businesses. Identifying these risks early in investment planning requires reliable information on species distributions, conservation status and habitat conditions.

Red List assessments provide evidence on extinction risk; systematic conservation planning (SCP) uses spatial biodiversity information, representation targets, connectivity and threats to identify priority areas across landscapes. These are complementary tools rather than successive stages of a single assessment.

To strengthen the evidence base, DKM is preparing the National Red List of Türkiye's Endemic Plants since 2024, involving more than 100 botanical specialists. In cooperation with the General Directorate of Nature Conservation and National Parks, the broader National Red List of Species initiative has produced a 2026 Preliminary Assessment Report (Bilgin et al. 2026) covering approximately 6,800 species. These preliminary results should be distinguished from completed, detailed IUCN Red List assessments. They nevertheless help identify information gaps, species requiring further evaluation and locations where more detailed surveys may be necessary.

DKM's Mediterranean Region, Southern Marmara Region, Anatolian Diagonal, Caucasus and Black Sea Region Systematic Conservation Planning works and the GEF-funded Conservation and Sustainable Management of Türkiye's Steppe Ecosystems Project (2019–2021) illustrate how biodiversity evidence can be translated into spatial and sectoral priorities. The steppe project developed national and Şanlıurfa-specific conservation strategies and action plans for landscapes facing agricultural and grazing pressures. These experiences show why conservation decisions should be grounded in ecological significance and landscape context, not simply in the availability of sites for corporate projects (Zeydanlı & Özüt, 2019).

Carbon, Afforestation and Biodiversity: Balancing Climate and Ecological Objectives

Forest carbon stocks, tree cover and biodiversity are related but cannot be treated as interchangeable outcomes. Land-based climate interventions may increase carbon sequestration while damaging natural steppes or grasslands, replacing structurally diverse forests with simplified plantations, or neglecting ecosystem functions. Carbon-focused investments therefore require assessment of existing habitat value, native species composition, soil and water conditions, future climate suitability and long-term management.

DKM's Türkiye Forest Carbon Standard Project (2014–2015) developed a proposed national standard and technical guidance for carbon certification in afforestation projects. This experience was complemented by the 2023 TÜSİAD report **Forest Ecosystems and Carbon Sink Management in Addressing the Climate Crisis in Türkiye**, prepared by DKM. The report examined the interactions among the climate and biodiversity crises, forest ecosystem services, land management and carbon sinks. It highlighted the importance of protecting and improving existing ecosystems and managing forest carbon in a broader ecological context rather than relying only on expanding afforested area (TÜSİAD, 2023).

DKM's Biodiversity-Focused Post-Fire Ecosystem Restoration work (2024), undertaken with FAO and the General Directorate of Forestry, adds an applied example. Assessments covered approximately 22,000 hectares of fire-affected landscapes around Marmaris

and Köyceğiz and informed technical guidance that considers natural regeneration, Turkish red pine fire ecology and species-specific habitat requirements. The experience challenges the assumption that rapid replanting is always the most appropriate post-fire response. For companies, the implication is that land-based climate action should be evaluated for ecological suitability and demonstrable ecosystem recovery, not solely tonnes of carbon or numbers of trees planted.

Integrating Biodiversity into Forest Management and Sectoral Planning

Conservation priorities achieve lasting results only when they are incorporated into decisions governing land and resource use. In forestry, this means translating inventories and spatial models into conservation zones, operational prescriptions, responsibilities and monitoring. DKM's cooperation with the General Directorate of Forestry has developed a practical approach based on priority-species identification, distribution modelling, spatial conservation analysis and the integration of recommendations into forest management plans (Zeydanlı & Özüt, 2019; Özüt et al., 2019).

According to DKM's project documentation, by the end of 2023 biodiversity conservation priorities had been integrated into forest management plans covering more than 2 million hectares across 78 Forest Subdistrict Directorates. The Integrated Management of Mediterranean Forests Project (2014–2019) further demonstrated how biodiversity, carbon storage and water-related ecosystem services could be considered alongside forest production objectives. The published Planner's Guide and Practitioner's Guide make the methodology usable beyond individual pilot sites, connecting scientific assessment with forest planning, implementation and monitoring (Zeydanlı & Özüt, 2019; Özüt et al., 2019).

Translating these approaches into wider practice requires coherent policies and monitoring systems. DKM contributed to the preparation of the Biodiversity Mainstreaming Action Plan and Biodiversity Monitoring Action Plan, both expected to be published shortly. Aligned with the Kunming–Montreal Global Biodiversity Framework, these plans aim to integrate biodiversity priorities into sectoral decision-making and strengthen monitoring of progress towards national conservation targets. Their intended contribution is to help align biodiversity priorities with sectoral decisions and establish a basis for tracking progress against national targets. This experience highlights that mainstreaming requires not only strategies but also spatial information, institutional cooperation, field-level capacity and feedback from monitoring.

Biodiversity Offsetting: Applying the Mitigation Hierarchy in Practice

The mitigation hierarchy calls for impacts to be avoided first, then minimised and restored; offsets may be considered only for suitable residual impacts. This distinction matters because some habitats and ecological functions are difficult or impossible to replace. Offsetting cannot justify development in irreplaceable ecosystems, and credible schemes require additionality, ecological equivalence, durable management, robust baselines and monitoring.

DKM's work under the TANAP Biodiversity Offset Strategy (2021–2024) provides a practical example. Conservation initiatives in the Acıkır, Bursa–Kütahya and Hafik–Zara steppe landscapes addressed residual impacts in relation to local habitat characteristics, sustainable land use and grazing management. Rather than assuming that a simple area-based calculation can compensate for biodiversity loss, this experience emphasises the importance of identifying realistic conservation actions and managing the ecological and social conditions on which they depend.

The wider lesson is that offsets should remain a carefully constrained last resort, not a substitute for avoiding impacts or protecting high-value natural ecosystems. DKM's experience with Red Lists, systematic conservation planning, forestry integration and steppe management offers a basis for identifying conservation priorities, evaluating the feasibility of proposed measures and designing longer-term ecological monitoring.

Key Insights from the Webinar

The second webinar in the “From Data to Field” series, jointly organised by CDP Türkiye and the Nature Conservation Centre (DKM), took place on 26 October 2026 under the title “Nature: From Data to Implementation in Biodiversity and Forests.”

Co-moderated by Mirhan Köroğlu Göğüş, Country Manager of CDP Türkiye, and Yıldıray Lise, Deputy Director General of DKM, the session brought together Prof. Dr. Cemal Can Bilgin (Department of Biology, Middle East Technical University), Galip Çağtay Tufanoğlu (Head of the Department of Ecosystem Services, General Directorate of Forestry, Ministry of Agriculture and Forestry) and Tayfun Akusta (Occupational Health and Safety, Environment, Quality Assurance and Sustainability Director, CarrefourSA), representing scientific, public-sector and corporate perspectives.

Four key themes emerged from the discussion:

Moving from reported activities to measurable biodiversity outcomes

Biodiversity extends beyond species diversity to encompass genetic variation, habitat and ecosystem condition, ecological connectivity and the processes that sustain ecosystem functioning. Consequently, the scale of activities such as tree planting, habitat restoration or species conservation does not, in itself, demonstrate a positive biodiversity outcome. A distinction is therefore needed between activity-based indicators, which record what has been undertaken, and outcome-based indicators, which measure changes in biodiversity and ecosystem condition.

Relevant measures may include species population trends, habitat quality, ecological connectivity and changes in ecosystem integrity. Establishing an ecological baseline before implementation is essential for determining whether an intervention has reduced existing pressures or improved biodiversity conditions. Given that ecological responses may develop over different timescales, long-term monitoring using ecologically meaningful indicators is critical to assessing the effectiveness and durability of conservation and restoration measures.

Using scientific evidence to identify priority areas and appropriate interventions

Areas identified as priorities from a company's operational risk perspective do not necessarily coincide with those requiring the most urgent biodiversity conservation action. Water stress, for example, may represent a significant business risk without providing sufficient information about an area's biodiversity significance. Corporate conservation initiatives therefore need to be informed by the ecological priorities of the landscapes in which companies operate or source their materials. Identifying these priorities requires current, spatially explicit evidence, including national Red List assessments, the distributions of threatened and endemic species, habitat condition, ecosystem integrity and ecological connectivity.

These datasets can support systematic conservation planning by identifying areas of high biodiversity importance, assessing pressures and determining where conservation or restoration measures are likely to deliver meaningful ecological benefits. Particular attention is needed in landscapes where natural habitats have become fragmented or degraded through human activities. Identifying opportunities to restore these habitats and reconnect ecologically important areas can help address biodiversity loss beyond individual project sites. Wetlands provide an important example of ecosystems that can respond rapidly to human-induced pressures, while also showing relatively early signs of ecological recovery following appropriately designed conservation and restoration interventions. Their recovery potential illustrates why site selection should consider both the ecological significance of an area and the nature of the pressures affecting it. Once priority areas have been identified, interventions must be tailored to their ecological characteristics and anticipated future conditions. Tree planting, for instance, should not automatically be equated with biodiversity restoration. Even-aged, single-species plantations may offer limited benefits for native biodiversity compared with more ecologically diverse systems. Maintaining natural species composition, prioritising native species where appropriate, considering future climatic suitability and assessing the risks posed by invasive alien species are important considerations when designing interventions intended to deliver lasting ecological benefits.

Integrating biodiversity and degradation risks into supply-chain decisions

For companies operating in agriculture, food production and retail, biodiversity impacts and degradation risks often extend well beyond their direct operations to the landscapes where commodities are produced and sourced. Managing these risks requires greater visibility across supply-chain tiers and the integration of environmental considerations into procurement and supplier management. CarrefourSA's experience provided a practical example of how this approach can be incorporated into corporate decision-making. Key measures included identifying forest-risk commodities, tracking product and supplier information, reviewing certification status and incorporating environmental criteria into procurement processes. These activities demonstrate how nature-related considerations can become part of purchasing decisions alongside conventional product quality and commercial requirements.

However, effective implementation depends on the availability and quality of supply-chain data. Suppliers differ considerably in their capacity to collect, manage and disclose environmental information, while limited traceability to upstream production locations can make it difficult to identify sourcing areas exposed to elevated biodiversity or degradation risks. Addressing these gaps requires prioritising commodities associated with higher environmental risks, improving the availability and geographical specificity of supplier data, and establishing systematic monitoring processes. Such measures can strengthen the link between corporate environmental disclosure and decisions concerning sourcing strategies, supplier engagement and product selection.

Beyond tree planting: forest ecosystem integrity and multi-stakeholder collaboration

Beyond managing degradation risks in supply chains, corporate action should also consider the ecological condition and long-term management of forest landscapes. Forests provide essential ecosystem services, including biodiversity conservation, water regulation, soil protection and carbon storage, while supporting local livelihoods. Sustainable forest management therefore requires balancing timber production and other economic uses with ecosystem integrity and conservation objectives. The General Directorate of Forestry (OGM) illustrated its ecosystem-based, multifunctional management approach through initiatives such as honey forests supporting apiculture, ecologically sensitive ecotourism routes, restoration of degraded forest areas and invasive species management. These examples demonstrate how ecological, economic and sociocultural objectives can be integrated into forest management. Digital fire-risk monitoring and decision-support tools developed in cooperation with Koç Holding further illustrate how public–private partnerships can strengthen forest risk management through scientific data and technology. Together, these examples show how corporate contributions can extend beyond tree planting to support broader forest conservation and management objectives. Effective initiatives should align with existing forest management plans, national and regional conservation priorities, and local ecological needs, bringing together public-sector planning expertise and private-sector resources, data and technical capabilities.

"Afforestation carried out for carbon sequestration or to maximise timber production in the shortest possible time generally involves a single tree species, with trees of the same age and rapid growth. However, such plantations tend to have limited value in terms of biodiversity. Afforestation approaches should also consider biodiversity, resilience to climate change and forest fires, and whether the selected areas are suitable for tree growth."

Prof. Dr. Cemal Can Bilgin

"Forest restoration means rebuilding a forest by restoring biodiversity, lost ecosystem services and habitats together. Bringing communities closer to nature helps foster environmental awareness and contributes to the conservation of biodiversity."

Galip Çağtay Tufanoğlu

"In food retail, our operations extend beyond managing the electricity and water needs of our stores or supplying products. We also need to monitor our suppliers' production processes, including the agricultural land where products are grown, the river basins from which their water comes, and surrounding forest ecosystems. Our approach begins by identifying which product groups, raw materials, suppliers and sourcing regions have higher or lower impacts on nature and dependencies on nature."

Tayfun Akusta

Overall Assessment

While corporate climate-risk management and environmental reporting practices have become more established, approaches to biodiversity and forest ecosystem management remain at an earlier stage of development. In particular, the integration of nature-related considerations into business decisions and the assessment of ecological outcomes are not yet as mature as climate-related practices. Unlike greenhouse gas emissions, biodiversity cannot be adequately represented by a single standardised metric. Its assessment requires location-specific information on species, habitats, ecosystem condition, ecological connectivity and natural processes.

Quantitative indicators such as forest cover, habitat extent or the number of trees planted cannot, on their own, demonstrate ecological quality or conservation benefits (Convention on Biological Diversity [CBD], 2022; World Business Council for Sustainable Development [WBCSD], 2023). As biodiversity becomes more prominent in sustainability reporting, financial frameworks and corporate strategies, nature-related risk and impact management is emerging as an increasingly complex area of corporate sustainability. The central challenge is to move beyond reporting commitments and conservation activities towards scientifically prioritised interventions that address significant ecological pressures and deliver measurable, lasting outcomes.

1. Biodiversity Data, Red List Assessments and Conservation Prioritisation

Current Situation

Effective biodiversity management requires reliable information on species distributions, conservation status, ecosystem characteristics and ecological pressures. National inventories, protected-area datasets and international biodiversity databases provide an important foundation for assessing nature-related impacts and identifying conservation opportunities.

Limitations, Barriers and Gaps

In Türkiye, biodiversity information remains fragmented across institutions, research programmes and geographic areas. Coverage is uneven across taxonomic groups, and differences in data quality, methodology and accessibility constrain its practical use. Incomplete national Red List assessments further limit the identification of threatened species and their conservation needs. International datasets can support initial screening but frequently lack the spatial resolution required for site-specific assessments.

Opportunities and Priority Actions

Strengthening the national biodiversity information infrastructure should be a priority, particularly through comprehensive Red List assessments, standardised inventories and accessible spatial datasets. Conservation prioritisation should follow a hierarchical approach: ecosystems should first be assessed according to conservation significance, threats, vulnerability, representativeness and protection gaps; priority sites can then be identified using geographic information systems, species distribution modelling and systematic conservation planning, supported by targeted ecological surveys (IUCN, 2024; Zeydanlı & Özüt, 2019).

2. Assessing Biodiversity Value and Ecological Quality

Current Situation

Biodiversity assessments commonly use indicators such as land cover, habitat extent, vegetation density and species richness. While useful, these measures do not fully capture the ecological characteristics that determine an ecosystem’s conservation value. Biodiversity encompasses genetic, species and ecosystem diversity, together with the ecological and evolutionary processes that sustain them.

Limitations, Barriers and Gaps

A key challenge is distinguishing ecological quantity from quality. Plantations, degraded forests and mature natural forests may be classified under the same land-cover category despite substantial differences in native species composition, structural

complexity and ecological integrity. Natural steppes, grasslands and other open habitats may similarly be undervalued when assessments place disproportionate emphasis on tree cover.

Opportunities and Priority Actions

Assessments should incorporate habitat condition, native species composition, ecological integrity, connectivity and the presence of threatened or otherwise significant species. Particular attention should be given to natural ecosystems with high conservation value, limited replaceability or distinctive ecological characteristics. Their protection should take precedence over interventions intended to recreate ecological functions after degradation or loss (CBD, 2022; IUCN, 2024). The Taskforce on Nature-related Financial Disclosures (TNFD) has strengthened its approach to assessing biodiversity quality by incorporating ecosystem condition, species population trends and extinction risk into its updated LEAP framework and nature-related metrics (TNFD, 2026). Nevertheless, translating these indicators into meaningful assessments of ecological integrity and conservation value remains challenging, particularly where location-specific ecological data and scientifically appropriate reference conditions are lacking.

3. Mitigation Hierarchy and Ecologically Appropriate Restoration

Current Situation

Tree planting and afforestation are widely used in corporate biodiversity programmes. However, their ecological benefits depend on whether interventions address the causes of degradation and support the recovery of appropriate native ecosystems. Interventions without a concise biodiversity assessment are quite common, although sometimes they cause further degradation of the ecosystems instead of supporting the recovery process.

Limitations, Barriers and Gaps

Afforestation does not necessarily constitute biodiversity conservation. Establishing tree cover in naturally open ecosystems, particularly steppes and grasslands, can damage existing habitats and reduce native species diversity. Similarly, single-species plantations designed for timber production or carbon sequestration are not ecologically equivalent to natural forests. Outcomes may also be compromised by unsuitable site selection, inappropriate genetic material, invasive species and insufficient consideration of future climate.

Opportunities and Priority Actions

The mitigation hierarchy should guide corporate action: avoid significant impacts wherever possible, minimise unavoidable impacts, restore affected ecosystems and consider offsets only for appropriate residual impacts under rigorous ecological conditions. Restoration should begin with an assessment of the original ecosystem, degradation pressures and recovery potential. Depending on priorities, restoring wetland hydrology or reconnecting fragmented habitats may offer greater benefits than conventional tree planting. Success should be evaluated through ecological recovery rather than planting targets (FAO et al., 2024 CBD, 2022).

4. Managing Forest Fragmentation, Degradation and Wildfire Risks

Current Situation

Forests provide essential habitats and ecosystem services, including water regulation, soil protection and climate regulation. Their ecological condition is increasingly influenced by fragmentation, degradation, changing fire regimes and climate-related pressures. In Türkiye, biodiversity inventories and conservation zoning are being integrated into forest management plans, providing an institutional mechanism for incorporating ecological information into operational decisions (Zeydanlı & Özüt, 2019).

Limitations, Barriers and Gaps

Fragmentation can isolate species populations, disrupt ecological processes and reduce ecosystem resilience. Degradation may remain insufficiently recognised where assessments focus primarily on forest extent rather than condition. Wildfire risk assessments require attention to ecological vulnerability alongside fire hazard and exposure. Post-fire interventions prioritising immediate replanting may overlook natural regeneration and ecosystem-specific fire ecology.

Opportunities and Priority Actions

Forest conservation should adopt landscape- and watershed-scale approaches that maintain habitat quality and connectivity. Biodiversity information should be systematically incorporated into forest management planning, conservation zoning and operational decisions. Wildfire management should integrate hazard, exposure and ecological vulnerability, while post-fire restoration should be based on ecological assessment, including natural regeneration potential and future climate conditions (FAO, 2026; Zeydanlı & Özüt, 2019).

5. Measuring Biodiversity Outcomes and the Effectiveness of Conservation Interventions

Current Situation

Corporate reporting increasingly documents biodiversity commitments, conservation projects and restoration activities. However, implementation records provide limited evidence of whether these interventions produce positive ecological change.

Limitations, Barriers and Gaps

Many initiatives lack detailed baselines, measurable ecological targets and long-term monitoring arrangements. Indicators such as hectares restored, trees planted or activities completed describe project outputs but do not establish biodiversity outcomes. Short project durations, inconsistent monitoring methods and difficulty distinguishing intervention effects from broader environmental changes further constrain effectiveness assessments.

Opportunities and Priority Actions

Conservation projects should have outcome-oriented targets and monitoring frameworks before implementation. Monitoring should combine habitat condition and ecosystem integrity assessments with appropriate indicators of species populations and ecological functioning. Selected indicator species can provide practical measures of ecological recovery. Standardised methods and repeated observations should inform adaptive management, while reporting should distinguish activities, observed ecological changes and evidence of attribution (FAO et al., 2024; WBCSD, 2023).

6. Financing and Governance for Long-Term Biodiversity Conservation

Current Situation

Nature-related disclosure frameworks and sustainability commitments are increasing corporate attention to biodiversity impacts, dependencies and risks. For many companies, significant impacts and dependencies also arise beyond direct operations, particularly through agricultural production, raw-material sourcing and supply chains (CBD, 2022; WBCSD, 2023).

Limitations, Barriers and Gaps

Corporate conservation investments are frequently organised as isolated projects with limited continuity or alignment with broader ecological priorities. Within supply chains, incomplete geographic information, differences in supplier capacity and the costs of traceability and verification constrain effective risk management. Certification and reporting may improve transparency without necessarily demonstrating positive ecological outcomes.

Opportunities and Priority Actions

Companies should integrate nature-related considerations into site selection, procurement, investment planning and supply-chain management. Conservation finance should support scientifically identified priorities and existing public programmes, including biodiversity inventories, forest management planning, restoration and long-term monitoring. Partnerships among public institutions, companies, research organisations and civil society can improve coordination and implementation effectiveness. Funding should be assessed against ecological outcomes rather than expenditure or activity levels alone (CBD, 2022; WBCSD, 2023).





5. Plastics and Pollution: A Brief Note

CDP Türkiye Findings

CDP Türkiye's 2025 Climate and Nature Report, based on disclosures from 132 companies, reveals a gap between tracking plastics and managing their environmental impacts. While 54% of companies have mapped or are mapping plastic use across their value chains, only 34% have set plastics-related targets, such as reducing plastic consumption or increasing recycled content. These targets focus largely on packaging and plastic products, with much less attention to microplastics and end-of-life management. Meanwhile, 65% of companies report having identified no plastics-related risks.

The gap is particularly evident in the difference between technical recyclability and recycling in practice. Although 14% of companies report technically recyclable plastic packaging, only 3% indicate that their packaging can be recycled in practice and at scale. Just 25% map end-of-life management pathways. Supplementary CDP data show that 24% of companies track recycling and 11% track preparation for reuse as end-of-life pathways, while none report tracking plastic leakage into the environment. Together, these findings highlight the need to move beyond packaging design and corporate commitments towards effective collection, sorting and material recovery systems, supported by reliable monitoring of end-of-life outcomes.

DKM's Insights and Experience from On-the-Ground Implementation

Corporate commitments to plastic circularity depend not only on packaging design, but also on effective local collection, separation, and recovery systems. Even technically recyclable packaging fails in practice without adequate municipal capacity and community participation—a challenge amplified in coastal destinations like Kemer, Antalya, where seasonal tourism strains waste infrastructure and increases marine leakage risks.

Through the Community-Based Recycling for a Litter-Free Mediterranean Project (2018–2020), DKM addressed these gaps by combining community engagement, data-informed planning, and targeted infrastructure: Data-Driven Collection: The Kollekt mobile application enabled residents and visitors to report uncollected waste and locate recycling points, helping optimize municipal collection routes and inform Kemer Municipality's Waste Management Plan. Source Separation & Interception: Community outreach promoted waste separation at the source, while a litter trap installed on Karabucak Stream intercepted solid waste before it reached the Mediterranean Sea. According to Kemer Municipality, reports submitted through Kollekt led to the recovery of approximately one tonne of plastic waste. This model demonstrates how private-sector circularity goals can be translated into verifiable outcomes by strengthening local systems that actively prevent plastic leakage into nature.

Overall Assessment

CDP Türkiye's findings reveal a gap between corporate plastics mapping and the management of materials at end of life. DKM's experience in Kemer demonstrates how local waste data can inform practical interventions.

Opportunity for Action

Companies can extend value-chain mapping (tracking plastic inputs, use and flows) to collection and recycling pathways and potential leakage hotspots. In Kemer, Kollekt reports have helped optimise municipal collection routes, while a litter trap on Karabucak Stream has intercepted waste before it reached the Mediterranean. Similar approaches can inform local partnerships and investment priorities.

Remaining Gap

Waste collected or intercepted is not necessarily recycled, nor does it demonstrate reduced pollution. Assessing corporate contributions requires verified recycling outcomes and monitoring changes in plastic leakage. Clear responsibilities for data sharing, operation and maintenance can support the continuity of local interventions.





6. Conclusion

Taken together, CDP Türkiye's 2025 findings, DKM's field experience and insights from the From Data to Field webinar series reveal four interconnected challenges across climate change, water security, biodiversity, forests and plastics management. Although these issues are often addressed through separate corporate strategies and reporting frameworks, their impacts and management needs frequently intersect at the basin, landscape and community levels. The central challenge is therefore not simply to translate corporate commitments into more activities, but to ensure that these activities respond to actual environmental pressures and contribute to meaningful ecological outcomes.

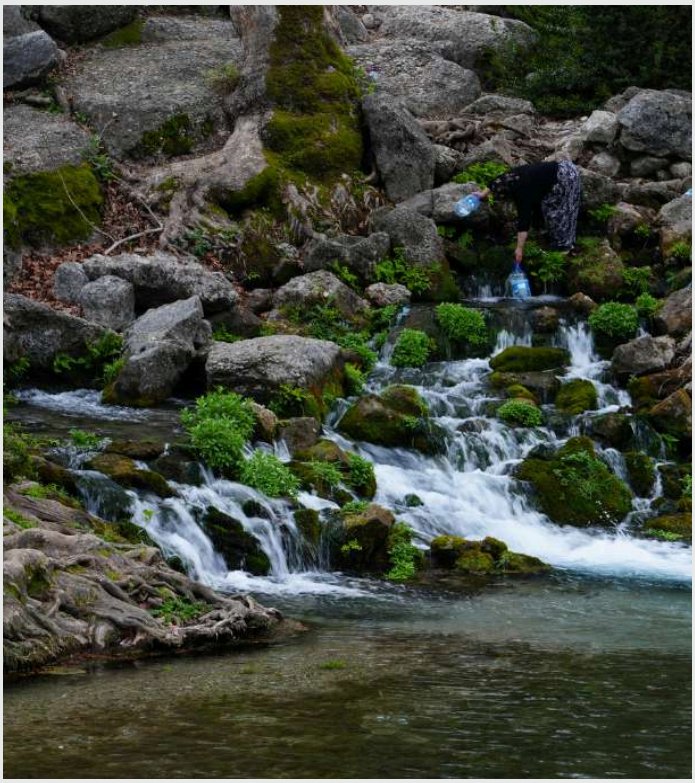
First, the growing sophistication of corporate environmental reporting has not been matched by an equivalent ability to demonstrate environmental outcomes. Water savings must be assessed alongside basin water balances, water quality and ecosystem requirements. Similarly, tree planting and restoration targets cannot establish biodiversity recovery without evidence of habitat condition and ecological integrity. In plastics management, technical recyclability and collection figures alone cannot establish whether materials are effectively recovered or environmental leakage is prevented. Across these environmental areas, credible assessments require appropriate baselines, scientifically relevant indicators and long-term monitoring that distinguishes activities from demonstrable environmental outcomes.

Second, meaningful environmental assessment must extend beyond individual facilities and across value chains. Climate risks, water availability, habitat connectivity and pollution pathways are shaped by processes operating across wider geographical areas. Yet corporate assessments remain more developed for direct operations than for upstream and downstream activities. Combining corporate disclosures with spatial data, ecological assessments and local knowledge can help identify where pressures are concentrated, which ecosystems are affected and where interventions are most needed. This also means moving beyond company-specific risk assessments to consider cumulative pressures, shared dependencies and the ecological priorities of the wider landscapes and river basins in which businesses operate.

Third, effective interventions depend on ecological suitability rather than technical solutions alone. Irrigation efficiency measures need to account for soil conditions, agricultural practices and basin-level water demands. Biodiversity conservation and restoration must reflect the characteristics of native ecosystems, including natural regeneration processes and habitat requirements. Likewise, plastic reduction and recycling initiatives depend on functioning local collection and recovery systems. Across these areas, interventions should address underlying environmental pressures, avoid unintended consequences and prioritise measures appropriate to local conditions. In particular, climate mitigation and adaptation measures should not be assumed to deliver biodiversity benefits automatically. Ecological trade-offs need to be considered from the outset, with priority given to avoiding and minimising harm before pursuing restoration or other compensatory measures.

Finally, lasting environmental outcomes require coordinated governance and sustained implementation capacity. Environmental challenges extend beyond the responsibilities and operational boundaries of individual companies. Aligning corporate initiatives with public-sector plans, scientific conservation priorities and local needs can improve the effectiveness of investments. Partnerships involving public institutions, businesses, researchers, suppliers and communities are essential for sharing information, mobilising resources and maintaining interventions over time. Such collaboration should extend beyond individual projects and reporting cycles, creating the conditions for long-term monitoring, adaptive management and shared responsibility for environmental outcomes.

These findings reinforce a central conclusion: corporate environmental disclosure is most valuable when it informs decisions grounded in ecological evidence and local priorities. Moving from data to action requires an integrated approach that connects spatial assessment, scientifically informed interventions, collaborative governance and outcome-based monitoring. The contribution of corporate disclosure lies not only in identifying environmental risks and tracking commitments, but also in helping direct attention, resources and investment towards where they can make a meaningful difference. The measure of progress is not simply the number of commitments made or activities undertaken, but their demonstrable contribution to ecosystem conservation, sustainable resource management and long-term resilience. Ultimately, the objective is not more environmental action in isolation, but better-informed, ecologically appropriate and collectively sustained action that delivers benefits for nature and the communities that depend on it.



Comparision Matrix

Theme	Finding from the CDP report	DKM area of work or example	Webinar perspective	White paper conclusion
Climate change	Climate risks are widely reported, but translating assessments and transition plans into local adaptation remains challenging.	Regional vulnerability assessments, climate projections and locally adapted agricultural practices.	Climate adaptation requires integrated management of soil, water and land resources.	Link corporate climate assessments to location-specific adaptation priorities and measurable resilience outcomes.
Water	Water targets and operational indicators are increasingly established, while supply-chain and basin-level outcomes remain less visible.	Irrigation efficiency, soil management, basin modelling and nature-based solutions.	Water security depends on ecological, social and economic conditions across shared river basins.	Move beyond operational water savings towards integrated basin management and verified environmental outcomes.
Biodiversity	Biodiversity risks are less integrated into corporate management, with limited use of ecological performance indicators.	Red List assessments, conservation prioritisation, steppe conservation and biodiversity-informed planning.	Effective conservation requires reliable ecological data, appropriate interventions and long-term monitoring.	Prioritise ecosystem condition and measurable conservation outcomes over activity-based indicators.
Forests	Forest-related risks receive limited attention in corporate risk management, transition planning and spatial assessments.	Biodiversity integration into forest management plans, ecological restoration and forest carbon management.	Forest cover and carbon stocks alone cannot demonstrate ecological integrity or biodiversity recovery.	Align land-based climate action with ecosystem conservation, natural regeneration and ecological restoration.



7. Implications for COP31

1. Corporate environmental disclosures should inform implementation priorities.

Environmental risks, targets and value-chain information disclosed by companies should be considered alongside public-sector planning data and locally identified needs. Together, these sources can help identify information gaps and areas where action is most needed. COP31's Climate Implementation Bridge (BRIDGE) initiative seeks to connect national climate priorities with implementation. Corporate disclosures can provide complementary evidence to inform this process.

2. Corporate capabilities in climate and water management should be extended to nature-related impacts, dependencies and risks.

Existing systems for greenhouse gas emissions accounting, risk assessment and environmental monitoring should be expanded to address impacts on biodiversity, dependencies on ecosystem services and degradation risks across supply chains. Integrating these issues into corporate decision-making would support COP31's Rio Synergy priority, which promotes integrated approaches to climate change, biodiversity loss and land degradation.

3. Corporate environmental action should reflect ecological priorities at basin and landscape scales.

Water management interventions should account for basin hydrology and the water needs of ecosystems. Nature conservation and ecosystem restoration efforts should reflect species and habitat conservation priorities while considering ecosystem services such as water flow regulation and erosion control. Measures that deliver climate benefits may nevertheless place additional pressure on agricultural production or habitat integrity. Such potential trade-offs should be assessed during site selection and project design. This approach supports integrated planning across agriculture, water and climate, as reflected in the Food–Water–Climate Nexus focus area under COP31's Food Security priority.

4. Activity indicators should be complemented by indicators of environmental outcomes.

Activity indicators document what has been implemented, while outcome indicators help assess what has changed. Relevant measures include trends in greenhouse gas emissions, basin-level water quantity and quality, and habitat condition, assessed against baseline conditions and at appropriate spatial and temporal scales. For circularity, actual recycling rates provide a measure of material-flow performance but do not, on their own, demonstrate environmental improvement. This distinction is particularly relevant to COP31's Zero Waste priority, which emphasises waste prevention and circular economy solutions.

5. Partnerships connecting corporate environmental data with scientific and field-based expertise should be strengthened.

Corporate environmental data should be interpreted alongside scientific evidence and field knowledge to inform decisions at basin and ecosystem scales. Specialist organisations with experience in nature conservation, river basin management, ecosystem restoration and spatial analysis can help identify priority intervention areas, select ecologically appropriate measures and develop monitoring frameworks to track progress towards nature-positive outcomes. Working with public authorities and local stakeholders, these collaborations can support the integrated implementation of climate, biodiversity and land degradation objectives, contributing to the Cross-Convention Coordination and Replicable Regional Models focus areas under COP31's Rio Synergy priority.



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About DKM

Founded in 2004, the Nature Conservation Centre (DKM) is a foundation based in Türkiye, dedicated to climate action, biodiversity conservation and the sustainable management of natural resources. DKM combines science-based approaches with field-based experience to develop practical solutions for climate change adaptation, water and forest management, ecosystem restoration and sustainable agriculture. Working with public institutions, the private sector and local communities, DKM promotes the integration of ecological knowledge into policies, planning and implementation on the ground. Visit dkm.org.tr or follow us @dogakorumamerkezi to find out more.

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