

CDP Climate Change and Water Report 2021

Written on behalf of over 590 institutional investors with US\$110 trillion in assets

Turkey Edition



CEO FOREWORD



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The science is clear – this is our final wake up call. Climate resilience must be at the forefront of the economy and society. Although it gives us great hope to see another year of record disclosure numbers – there is still a vast amount of action required. The next five years will determine whether reaching net-zero by 2050 is achievable and therefore we need all actors in our economy – national and local governments, businesses and capital markets – to be united in ambitious, urgent, system-wide action.

I am mindful that as I write this Ukraine is suffering from the Russian invasion which is causing terrible suffering and unfolding each day. The Ukraine invasion is having profound economic consequences with the increases in oil and gas prices highlighting once again that weaning ourselves off fossil fuels and onto clean, local renewable energy is the only way to ensure sustainable, affordable and secure energy.

In 2021 the Intergovernmental Panel on Climate Change (IPCC) released its most devastating [report](#) yet. The report emphasized that climate change is no longer a distant reality, and its repercussions are already being felt by people across the globe. Over the last year, we have seen terrifying wildfires, extreme flooding and some of the hottest temperatures on record around the world.

The COP26 summit took place in the shadow of the IPCC report's warnings and, although significant progress was made, there is still a vast amount of change needed if we are to have any chance of halving emissions by 2030 and reaching net-zero by 2050. COP26 may have kept the prospect of achieving a 1.5°C resilient future alive, but it cannot guarantee it.

It is encouraging that even against this backdrop – described by the IPCC as a 'code red' for humanity – CDP reported a record number of disclosures in 2021. Over 13,000 companies worth over 64% of global market capitalization and over 1,000 cities, states and regions disclosed their environmental data through CDP, an overall increase of 35% since 2020 and over 141% since the Paris Agreement was signed in 2015.

It was encouraging to see Turkey ratify the Paris Agreement in 2021, the same year as a record number of Turkish companies disclosed to CDP. In total 67 Turkish companies disclosed and KORDSA TEKNİK TEKSTİL A.Ş., ETİ SODA A.Ş.

and TEKFEN HOLDİNG A.Ş. were awarded a place on the prestigious [2021 CDP Corporate A List](#).

This record year of disclosures has coincided with the release of CDP's new 2021-2025 strategy, [Accelerating the rate of change](#). Our new strategy recognizes the urgent need for climate action and accountable, transparent climate plans from companies, cities, states and regions and sets out how CDP will respond to the interlinked crises of catastrophic climate change and an irreversible loss of nature and habitats. Over the next five years, CDP will work with a broader spectrum of stakeholders and authorities to widen our scope to cover more environmental issues and increase our focus on climate targets, plans, and tracking performance against them.

The science is clear – this is our final wake up call. Climate resilience must be at the forefront of the economy and society. Although it gives us great hope to see another year of record disclosure numbers – there is still a vast amount of action required. The next five years will determine whether reaching net-zero by 2050 is achievable and therefore we need all actors in our economy – national and local governments, businesses and capital markets – to be united in ambitious, urgent, system-wide action.

CDP looks forward to seeing Turkey continue to strive to become leaders in the transition to a net-zero, nature positive and equitable world.

Paul Simpson
CEO, CDP

SPONSOR FOREWORD



It is clearly foreseen that Turkey's emerging climate change public policy will also accelerate the clean transition and create new sources for clean energy investments in the business world. I believe that Turkish business world's ability to adapt these changes is fascinating as it can be seen from CDP Turkey's Climate Change Report 2021.

Lethal heat waves, hurricanes migrating beyond the tropics, droughts, extreme and widespread wildfires: the world and Turkey have seen the devastating effects of climate change ever than more clearly last year. The very best expression of what we have witnessed through the year was the speech of the UN Secretary-General António Guterres' at the launch of 6th Assessment Report of IPCC Working Group's that was nothing less than "A code red for humanity. The alarm bells are deafening, and the evidence is irrefutable".

These extreme events highlight the need for concrete climate action. The Paris Agreement, set the goal of keeping global temperature rise to below 1.5°C compared to pre-industrial levels, yet the outcomes from 26th Conference of Parties (COP26) in Glasgow do not currently leave the world on track to meet this goal which is the reason why much more urgent action is required. On the other hand, among climate risks that are expected to grow more frequent and extreme, countries and companies worldwide are calling for net-zero emission targets. It's a huge undertaking that needs to build climate considerations into frameworks for making key decisions. Such as the European Green Deal which is an implicit political-economic scenario in Europe and the UK's 'green growth' strategy, along with to be framed carbon pricing and integrated economic policies to shift consumer behaviour, the new normal will be shaped around climate resilient economy.

Turkey has also monumentally stepped up its "green development revolution" by ratifying the 2015 Paris climate agreement in October 2021 when its pledge of net zero by 2053 was confirmed. One of the critical items on this year's climate agenda was the Turkey's Climate Council hold in February 2022 with over 1.000 participants. Experts and partners have discussed climate adaptation, a just transition, green financing and an emissions trading system at the Council, which is regarded as significant instruments in the formation of inclusive and updated nationally determined contributions. Turkey is expected to submit its updated nationally determined contributions at the 27th Conference of Parties (COP27) that will take place in Egypt this year, where green financing will be among the main agenda topics.

It is clearly foreseen that Turkey's emerging climate change public policy will also accelerate the clean transition and create new sources for clean energy investments in the business world. I believe that Turkish business world's ability to adapt these changes is fascinating as it can be seen from CDP Turkey's Climate Change Report 2021. While, 97% of this year's respondents identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on the business, the ratio of the respondents that are identified any inherent climate-related opportunities is 91%. This is a clear reflection of how Turkish companies embracing the requirements to be competitive and resilient in the new normal and to build back better and green from COVID-19.

However, our work has just begun. We are standing at a juncture in both world's and our country's history. The decisions we make today can lead us to a profitable and secure future. A future that we can all be proud of.

Once more I congratulate CDP Turkey on the release of the CDP Turkey's Climate Change Report 2021 and encourage companies to consider the true costs of mitigating climate and water risks while embracing opportunities – as inaction could turn out more costly. As Garanti BBVA, continuing to innovate and implement sustainable finance solutions to drive climate action and inclusive growth, we will continue to be a proud partner of CDP Turkey, to ensure that Turkish business world's bloom in accordance with the global sustainability goals so that our country can see a safer, cleaner and healthier tomorrow.

Recep Baştuğ
CEO, Garanti BBVA

INTRODUCTION



IT IS NOW OR NEVER

This year marks the 50th anniversary of the United Nations Conference on the Human Environment, held in Stockholm. Over the past half a century, substantial improvements in human well-being have been achieved. At the same time however, planetary boundaries have been hit by the climate shock, which forced 30 million people to become climate refugees since 2020, one-third of the numbers displaced by war and violence.

The CDP Turkey 2022 conference, the 12th in the series, is held soon after the latest report from the Intergovernmental Panel on Climate Change (IPCC) was released on 4th April 2022, revealing that the world may be on track to warm by more than 3°C - twice the Paris Agreement target. This would painfully remake societies and life on the planet. The scientists, who authored the IPCC report, bluntly wrote in the "Technical" Summary: "The interaction between politics, economics and power relationships is central to explaining why broad commitments do not always translate to urgent action." The IPCC report indicates that global greenhouse gas emissions must peak by 2025 to prevent catastrophic consequences. This would mean that, the financing of climate change prevention strategies must grow by three to six times above current levels.

For many years, Turkish companies suffered from ambiguity around Turkey's climate change policy direction due to the government's reluctance to ratify the Paris Agreement. We had warned the business community about the risks associated with the ambiguity of Turkey's position on climate change in a panel we organized together with TÜSİAD in April 2018. I strongly believe that the pioneering private sector companies and the analysis of their disclosures shared by CDP Turkey played a significant role in encouraging the government to finally ratify the Agreement, although, Turkey has not specified any absolute reduction targets. Turkey's current intended contribution (INDC) is to reduce its GHG emissions by 21% from business-as-usual levels by 2030, until when emissions will still be increasing, and to achieve net zero emissions by 2053. These targets are not sufficient to transform the economy and support the competitiveness of the Turkish economy as a whole. With these low ambition targets, Turkey only barely managed to get out of "very low performers" category in the Climate Change Performance Index (CCPI) to the "low performers" category.

The findings of the CDP Turkey 2022 report support the case for clarity of public policy direction and targets - no matter how

underwhelming they are - in encouraging businesses to develop strategies and business policies responsive to climate change. Up to this year, many large and old companies that enjoy market dominance have been lagging in climate related disclosure and performance. This year, we report an increased number of climate change reporters among BIST-100 companies and a drastic improvement in climate change performance of reporting companies. The improvement is especially remarkable in supply chain engagement, demonstrated by 8 companies making it to the world leaders list with a full score of "A" in supplier engagement. Board level oversight of climate change performance and climate performance related incentives for the management have become the norm.

Regulatory risks that would have a substantive strategic or financial impact on the business made it to the top of the company's concerns in Turkey again, but this year with a jump in the ratio of companies that rank them at the top, alongside a much stronger emphasis on the operational risks associated with extreme climate events. The disclosures reveal that companies are also becoming increasingly more aware of market opportunities related to climate change. The total value of risks and opportunities reported by the 64 reporting companies are roughly equal at USD 270 and 260 billion respectively. Regulatory risks are at the top of risks reported by the vast majority of Water reporters, as in the case of Climate Change.

In my last year's CDP report, I expressed the positive consequences of post-pandemic economic strategies on climate change responsiveness as they were anchored in green recovery, attributable primarily to the policies of the European Union. The exacerbated energy security risks associated with the war in Ukraine may have a similar effect and stimulate stronger policies in accelerating the transition to renewable energy and a zero-carbon economy.

The World has not done well in mitigating climate risks. Even if all the policies to cut carbon that governments had put in place by the end of 2020 were fully implemented, the world will still warm by 3.2C this century. As expressed in the headlines in media commenting on latest IPCC report "it is now or never." Adaptation to climate change is more expensive than mitigation, but perhaps it will inevitably become a larger part of climate change response strategies but with a much higher cost.

Melsa Ararat, PhD
Director, CDP Turkey

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This year, we report an increased number of climate change reporters among BIST-100 companies and a drastic improvement in climate change performance of reporting companies. The improvement is especially remarkable in supply chain engagement, demonstrated by 8 companies making it to the world leaders list with a full score of "A" in supplier engagement. Board level oversight of climate change performance and climate performance related incentives for the management have become the norm.



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RESPONDING COMPANY LIST

CLIMATE CHANGE / TURKEY 2021

Official Investor Sample

AKBANK T.A.Ş.
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.
AKSA AKRİLİK KİMYA SANAYİİ A.Ş.
ALBARAKA TÜRK KATILIM BANKASI A.Ş.
ANADOLU EFES BİRACILIK VE MALT SANAYİİ A.Ş.
ARÇELİK A.Ş.
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.
BORUSAN MANNESMANN BORU SANAYİ VE TİCARET A.Ş.
BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.
COCA-COLA İÇECEK A.Ş.
ÇELEBİ HAVA SERVİSİ A.Ş.
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.
DOĞAN ŞİRKETLER GRUBU HOLDİNG A.Ş.
ENERJİSA ENERJİ A.Ş.
ENKA İNŞAAT VE SANAYİ A.Ş.
FORD OTOMOTİV SANAYİ A.Ş.
GOODYEAR LASTİKLERİ T.A.Ş. (SA)
KORDSA TEKNİK TEKSTİL A.Ş.
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.
MİGROS TİCARET A.Ş.
NETAŞ TELEKOMÜNİKASYON A.Ş.
PEGASUS HAVA TAŞIMACILIĞI A.Ş.
PINAR ENTEGRE ET VE UN SANAYİİ A.Ş.
PINAR SÜT MAMULLERİ SANAYİİ A.Ş.
SABANCI HOLDİNG A.Ş.
ŞEKERBANK T.A.Ş.
T.GARANTİ BANKASI A.Ş.
T.İŞ BANKASI A.Ş.
T.SINAI KALKINMA BANKASI A.Ş.
T.ŞİŞE VE CAM FABRİKALARI A.Ş.
TEKFEN HOLDİNG A.Ş.
TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.
TURKCELL İLETİŞİM HİZMETLERİ A.Ş.
TÜRK HAVA YOLLARI A.O.
TÜRK TELEKOMÜNİKASYON A.Ş.
TÜRKİYE HALK BANKASI A.Ş.
TÜRKİYE VAKIFLAR BANKASI T.A.O.
ÜLKER BİSKÜVİ SANAYİ A.Ş.
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.
YAPI VE KREDİ BANKASI A.Ş.
ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.

Other Responding Companies

ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.
AKENERJİ ELEKTRİK ÜRETİM A.Ş.
ANAGOLD MADENCİLİK SANAYİ VE TİCARET A.Ş. (SA)
AYDEM YENİLENEBİLİR ENERJİ A.Ş.
CARREFOURSA CARREFOUR SABANCI TİCARET MERKEZİ A.Ş.
DURAN DOĞAN BASIM VE AMBALAJ A.Ş.
EKOL LOJİSTİK A.Ş.
EKOTEN SANAYİ VE TEKSTİL A.Ş.
ENERJİSA ÜRETİM SANTRALLERİ A.Ş.
ETİ SODA A.Ş.
GAZDAŞ GAZİANTEP DOĞAL DAĞITIM A.Ş.
GENEL ENERGY PLC
GENTAŞ GENEL METAL SANAYİ VE TİCARET A.Ş.
ICBC TURKEY BANK A.Ş. (SA)
İHLAS EV ALETLERİ İMALAT SANAYİ VE TİCARET A.Ş.
KARSAN OTOMOTİV SANAYİİ VE TİCARET A.Ş.
KAYSERİ ULAŞIM A.Ş.
KAZAN SODA ELEKTRİK ÜRETİM A.Ş.
LİMAK ÇİMENTO SANAYİ VE TİCARET A.Ş.
OSMANGAZİ ELEKTRİK DAĞITIM A.Ş.
PERLA FRUIT GIDA SANAYİ VE TİCARET A.Ş.
POLİSAN HOLDİNG A.Ş.
QNB FİNANSBANK A.Ş.
TÜRKİYE KALKINMA VE YATIRIM BANKASI A.Ş.
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.
YÜNSA YÜNLÜ SANAYİ VE TİCARET A.Ş.

*(SA): See Another (Company is either a subsidiary or the parent company is already responding to CDP)

RESPONDING COMPANY LIST

WATER SECURITY / TURKEY 2021

Official Investor Sample

AFYON ÇİMENTO SANAYİ T.A.Ş. (SA)
AKÇANSA ÇİMENTO SANAYİ T.A.Ş.
AKENERJİ ELEKTRİK ÜRETİM A.Ş.
AKSA AKRİLİK KİMYA SANAYİİ A.Ş.
ANAGOLD MADENCİLİK SANAYİ VE TİCARET A.Ş. (SA)
ARÇELİK A.Ş.
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.
BORUSAN MANNESMANN BORU SANAYİ VE TİCARET A.Ş.
BRİSA BRIDGESTONE SABANCI LASTİK SAN. VE TİC. A.Ş.
CARREFOURSA CARREFOUR SABANCI TİCARET MERKEZİ A.Ş.
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.
COCA-COLA İÇECEK A.Ş.
ENERJİSA ENERJİ A.Ş.
ENKA İNŞAAT VE SANAYİ A.Ş.
ETİ SODA A.Ş.
FORD OTOMOTİV SANAYİ A.Ş.
GENEL ENERGY PLC
GOODYEAR LASTİKLERİ T.A.Ş. (SA)
KORDSA TEKNİK TEKSTİL A.Ş.
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.
MİGROS TİCARET A.Ş.
PINAR ENTEGRE ET VE UN SANAYİİ A.Ş.
PINAR SÜT MAMULLERİ SANAYİİ A.Ş.
POLİSAN HOLDİNG A.Ş.
SABANCI HOLDİNG A.Ş.
T.GARANTİ BANKASI A.Ş.
TEKFEN HOLDİNG A.Ş.
TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.
ÜLKER BİSKÜVİ SANAYİ A.Ş.
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.
YÜNİSA YÜNLÜ SANAYİ VE TİCARET A.Ş.
ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.

Other Responding Companies

ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.
ALBARAKA TÜRK KATILIM BANKASI A.Ş.
AYDEM YENİLENEBİLİR ENERJİ A.Ş.
DURAN DOĞAN BASIM VE AMBALAJ A.Ş.
İHLAS EV ALETLERİ İMALAT SANAYİ VE TİCARET A.Ş.
KAZAN SODA ELEKTRİK ÜRETİM A.Ş.
PERLA FRUIT GIDA SAN VE TİC A.Ş.
ŞEKERBANK T.A.Ş.
T.İŞ BANKASI A.Ş.
TÜRKİYE HALK BANKASI A.Ş.
YAPI VE KREDİ BANKASI A.Ş.

RESPONDING COMPANY LIST

FOREST / TURKEY 2021

Official Investor Sample

GOODYEAR LASTİKLERİ T.A.Ş. (SA)
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.

*(SA): See Another (Company is either a subsidiary or the parent company is already responding to CDP)

SNAPSHOT

CLIMATE CHANGE / TURKEY 2021



Response Summary & Current State

64 | Total number of responding companies

41 | Number of responding companies within BIST-100

47 | Number of A and B Band respondents



Climate Change Management

94% | Reporting engagement with the value chain on climate-related issues

42% | Organization has developed a low-carbon transition plan to support the long-term business strategy

42% | Use an internal price on carbon



Governance & Strategy

98% | Board-level oversight of climate-related issues within the organization

75% | Provide monetary incentives for the management of climate-related issues

83% | Use climate-related scenario analysis to inform organization's business strategy



Risks

482 | Total number of risks identified as relevant

70% | Carbon pricing mechanisms are one of the risk drivers that have a financial or strategic impact

US\$276.7 billion | Potential financial impact of the risks identified



Targets & Performance

91% | Have an emissions target that was active in the reporting year

44% | Provide products and/or services that enable a third party to avoid GHG emissions

41% | Have no Science Based Target yet but anticipate setting one in the next two years



Opportunities

214 | Total number of opportunities identified as relevant

39% | Shift in consumer preferences is one of the risk drivers that have a financial or strategic impact

US\$260.2 billion | Potential financial impact of the opportunities identified

SNAPSHOT

WATER SECURITY / TURKEY 2021

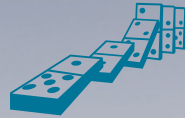


Response Summary & Current State

41 | Total number of responding companies

93% | Across all operations (sites/facilities/operations), more than half of the water aspects are regularly measured and monitored

85% | Engage with the value chain on water-related issues



Business Impacts & Procedures

98% | Undertook a water-related risk assessment

98% | Regulators are the most considered stakeholders in organization's water-related risk assessments

27% | Organization has experienced detrimental water-related impacts



Governance & Strategy

98% | Reported board-level oversight of water-related issues within the organization

85% | Respondents that have a water policy

78% | Water-related issues are integrated into financial planning of the organization



Risks

56% | More than half of company-wide facilities are exposed to water risks

44% | Anticipate risks to materialize within 1 - 6 years

24% | Flooding and increased water stress are the primary risk drivers in direct operations that have a substantive financial or strategic impact



Targets & Performance

93% | Company-wide targets and goals are in place

93% | Respondents that provide quantitative metric for water targets

56% | Reduced environmental impacts reported as the most common primary motivation behind water targets



Opportunities

63% | Efficiency is one of the opportunities that could have a substantive financial or strategic impact

61% | Anticipate opportunities to materialize within 1 - 6 years

34% | Cost savings are primary water-related opportunities

KEY FINDINGS

CLIMATE CHANGE / TURKEY 2021

Governance & business strategy

Within Turkey, the number of companies responding to CDP's Climate Change Program increases every year, reaching 67 in 2021. In addition, for the first time in the last five years, there has been an increase in the number of responding BIST 100 companies.

The number of the reporting companies that qualify for management and leadership levels (A & B scores) has reached 50 in total this year compared to 36 in 2020. That number is steadily increasing year-by-year. This year, the number of companies with a B in the Climate Change category increased by 100% compared to last year.

The majority of companies with a new B score received a higher score the previous year. This shows that companies should set more ambitious targets to avoid losing the position they have gained in line with the experience gained over the years.

CDP's annual Supplier Engagement Rating (SER) provides a rating for how effectively companies engage their suppliers on climate change since 2018. Businesses that disclose their environmental data in Turkey had significant progress in Supplier Engagement Rating this year, and eight companies received an A (up from three in 2020).

Board-level oversight of climate-related issues within the organizations is increasing year-by-year. Companies that include climate-related issues on the agenda at every board meeting has risen from 33% last year to more than half (53%) of all responding companies this year.

95% of responding companies reported that they offer incentives to senior leadership to ensure environmental goals are achieved in climate change. 73% offered incentives for water security goals. The number of incentives for climate change was also higher compared to water security in previous years.

The issue of water security appears on companies' agendas more frequently every year. All of the companies that took action to ensure water security by reporting to CDP this year also reported on climate change. 64% of companies working on climate change also considered water security.

Risks & Opportunities

The proportion of risks related to climate change, which directly affects companies' activities, is increasing every year. The rate, which was 86% in 2018, 90% in 2019, and 94% in 2020, rose to 97% this year, reaching a record level. Now, almost all companies are aware of the risks posed by climate change and are developing prevention mechanisms. In this instance, the full participation of corporate governance in the issue of the climate crisis has created a new business normal.

This year, among the ten indicators in companies' self-identified risk types considered in the organization's climate-related risk assessments; Emerging Regulation risks (with a rate of 95%), Market risks (with a rate of 97%), and Chronic Physical risks (with a rate of 92%) were at the top of most

reported risks. Besides, the ratio of companies that identified these three risk types as relevant to their operation has increased dramatically since last year.

Among the 18 risk drivers identified by the potential to have a significant financial or strategic impact on companies this year, the number of companies choosing Carbon Pricing Mechanisms increased from 59% to 70%, and Mandates on and Regulation of Existing Products and Services rose from 22% to 27%.

The most commonly reported risk type with the potential to have a substantive financial or strategic impact on the business is Emerging Regulation (77%) of reported risks. Regulations were also the most reported risk type last year by 65% of the companies. The significant increase in reporting regulatory risks may be attributed to the fact that the government's climate-related policy was uncertain until the ratification of the Paris Agreement in the Turkish Grand National Assembly in October 2021. This marked the end of policy uncertainty, and regulatory risks are now more predictable.

Market risks (45%) have increased dramatically since last year. However, acute (66%) and chronic physical (50%) effects and reputation concerns (38%) are among the indicators that companies evaluate as having a significant financial impact.

91% of disclosing companies identified climate-related opportunities that have the potential to have a significant financial or strategic impact on company operations, an increase from 89% in 2020.

This year, 33% of companies identified climate-related opportunities in upstream activities covering the supply chain. This figure has risen from 17% last year, indicating that adding the residual value chain seems more attractive in identifying climate-related opportunities.

Targets & Performance

The number of companies that reported not having set an emission target decreased from 20% last year to 9% this year. The overwhelming majority of companies are now setting company emissions targets.

23% of companies provided details on their emission intensity target(s) and disclosed progress on these targets, an increase from 11% last year.

The number of companies that do not plan to set a Science-Based Target in the next two years is decreasing from year to year. The rate, which was 19% in 2020, has decreased to 11% this year, revealing a promising picture.

Companies that have disclosed for many years in Turkey have led the way for companies disclosing for the first time, by setting ambitious targets on climate change and making the disclosure of environmental data a business norm. 4% of first-time reporting companies and 9% of companies that have been reporting for a long time are yet to set any emission targets – indicating that first-timers demonstrate a similar level of awareness and ambition as long-time reporting companies.

KEY FINDINGS

WATER SECURITY / TURKEY 2021

Current State and Accounting

Compared to 2020, the number of companies disclosing water issues has increased by 22%. Tekfen Holding, Eti Soda, and Kordsa Teknik Tekstil achieved an A for water security and showed leadership on water issues.

The response rate of the official sample increased to 47% this year, compared to 40% in 2020.

While 76% of companies engage in some way with their value chain on water security, only 24% request more than half of their suppliers to report on their water use, risks and/or management information.

While 41% of responding companies reported that their water consumption decreased from the previous year, 17% reported an increase. Regarding water withdrawals, 49% of responding companies report a decrease, while 22% measured a rise compared to 2020. This year, the rate of companies with higher total water consumption, discharge, and withdrawal compared to last year decreased, while the rate of companies with lower total water consumption, discharge, and withdrawal compared to the previous year increased.

66% of responding companies reported that more than half of total withdrawals were sourced from water stressed areas, which is much higher than the previous year (53%). Most of the water withdrawal is sourced from third-party sources (76%), and most of the water is discharged to third-party destinations (78%), which shows water crosses the company boundary, at either the corporate level or facility level.

The total volume of water withdrawn, discharged, and consumed by companies increased from 11.5 million (megaliters/year) the previous year to 31.5 million this year.

The volume of total water withdrawal by source nearly quadrupled from the previous year (from 4.3 million to 15.6 million megaliters/year).

The volume of total water discharge by destination nearly quadrupled from the previous year (from 15.4 million to 3.9 million megaliters/year).

Business Impact & Procedures

While almost all companies (98%) undertake a water-related risk assessment, only 27% reported that they experienced any detrimental water-related impacts.

The total financial impact of water-related detrimental impacts experienced by companies in Turkey is US\$174 million (up from US\$26 million in 2020).

Only 44% of disclosing companies conduct risk assessments, including their direct operations and supply chains.

Water-related regulatory frameworks (95%) and water availability at a basin/catchment level (95%) are the most considered contextual issues in the company's water-related risk assessments. 78% of companies in Turkey conducted a risk assessment with a consideration of river basin management authorities and a further 90% with local communities. Regulators are the most considered stakeholders (98%) in the company's water-related risk assessments.

Risks Assessment & Opportunities

Physical risks are the most reported types of risks in the direct operations (68%) and the value chain (49%).

The combined financial risk reported in 2021 topped out at US\$701 million in Turkey.

The potential financial impact of opportunities that could have a substantive financial or strategic impact on companies in Turkey increased from US\$2.9 million to US\$50.6 million.

Business Strategy

Looking at the longer-term, 85% of respondents in Turkey are integrating water-related issues into the organization's long-term strategic business plan. A further 46% integrated those issues into a strategic business plan for more than 10 years. While 78% of companies considered water-related issues in their financial planning, 78% considered it in their long-term business objectives.

While 93% of companies have some type of water-related target or goal in place, 56% stated that more than half of targets have been achieved. Reduced environmental impacts (56%) are the primary motivation behind targets, and the primary motivation behind the goals is water stewardship (29%) and reduced environmental impacts (29%).

COMPANY RESPONSE SUMMARY

CLIMATE CHANGE / TURKEY 2021

CARBON PRICING

Carbon pricing has emerged as a key policy mechanism to drive greenhouse gas emissions reductions and mitigate the dangerous impacts of climate change. As the number of jurisdictions with carbon pricing policies has doubled over the last decade, this module examines details on the operations or activities regulated by carbon pricing systems, carbon credits, and internal prices on carbon. The percentage of the following indicator in this module has increased compared to the previous year.

- 42% use an internal price on carbon

GOVERNANCE

This module aims to capture the governance structure of the company with regard to climate change and provides data users with an understanding of the organization's approach to climate-related issues, both at the board and below board-level. The results demonstrate that the responding companies in Turkey have strong governance structures and strategies for climate change.

- 98% have board-level oversight of climate-related issues within the organization
- 95% provide incentives for the management of climate-related issues including the attainment of targets
- 92% have climate risk management procedures in place

EMISSIONS

A meaningful and consistent comparison of emissions over time is an essential step in understanding and reducing negative environmental impacts. This module allows companies to provide a base year and base year emissions and provide details of the standard, protocol, or methodology used to collect activity data and calculate Scope 1 and Scope 2 emissions.

- 97% reported Scope 1 & 2 emissions
- 67% reported a decrease in Scope 1 & 2 emissions
- 25% reported an increase in Scope 1 & 2 emissions

TARGETS

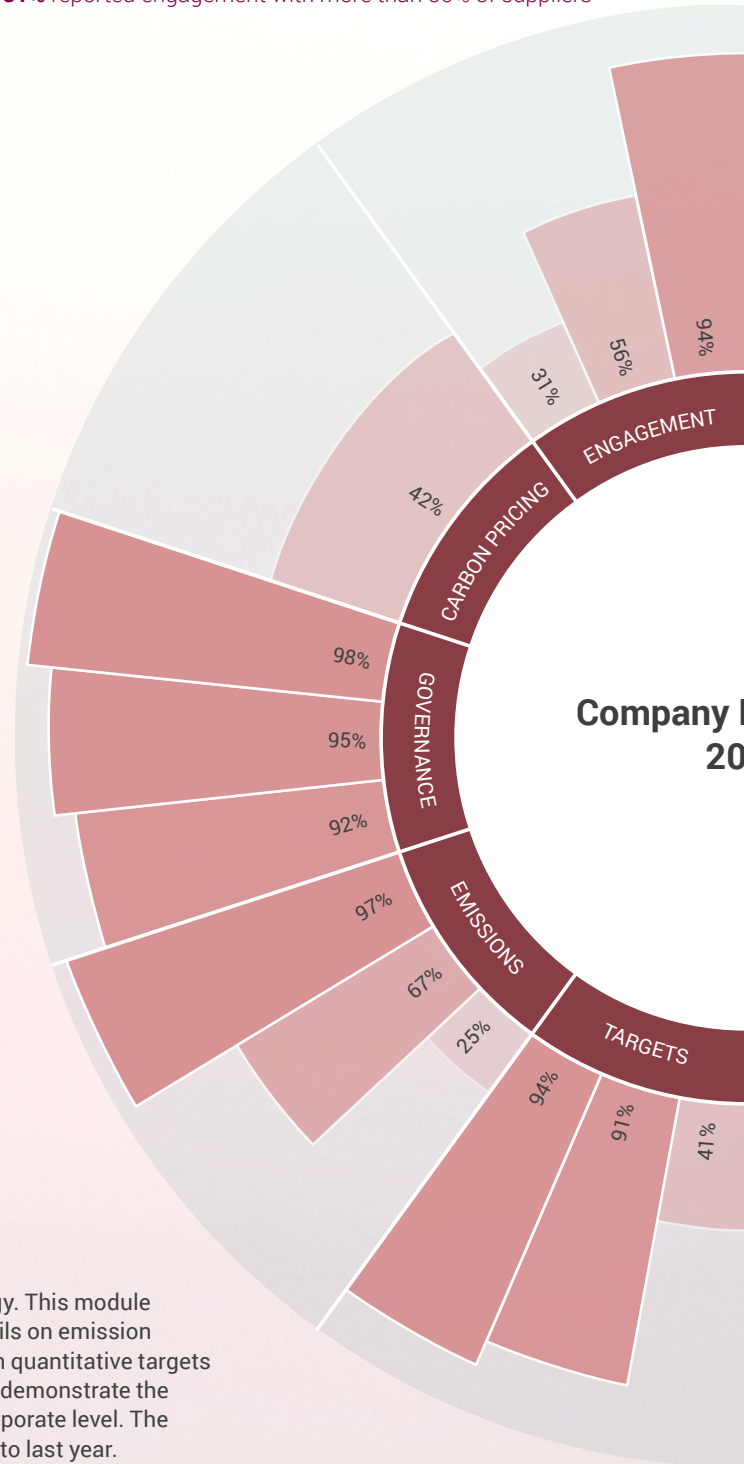
Target setting provides direction and structure to environmental strategy. This module focuses on emission targets as well as the climate-related targets, details on emission reduction initiatives, and low-carbon products. Providing information on quantitative targets and qualitative goals, and the progress made against these targets can demonstrate the organization's commitment to managing climate-related issues at a corporate level. The percentage of indicators below in this module has increased compared to last year.

- 94% have emission reduction initiatives that were active within the reporting year
- 91% have an emission target that was active in the reporting year
- 41% reported anticipation of setting science-based targets in the next two years

ENGAGEMENT

Since the reduction of GHG emissions plays a key role in tackling the climate crisis, it is crucial for companies to consider their value chain operations. This module examines how organizations are working with their suppliers, customers and other stakeholders, and provides data users with insight into the different types of activities in which organizations engage to influence public policy on climate-related issues. The percentage of indicators below in this module has increased compared to last year.

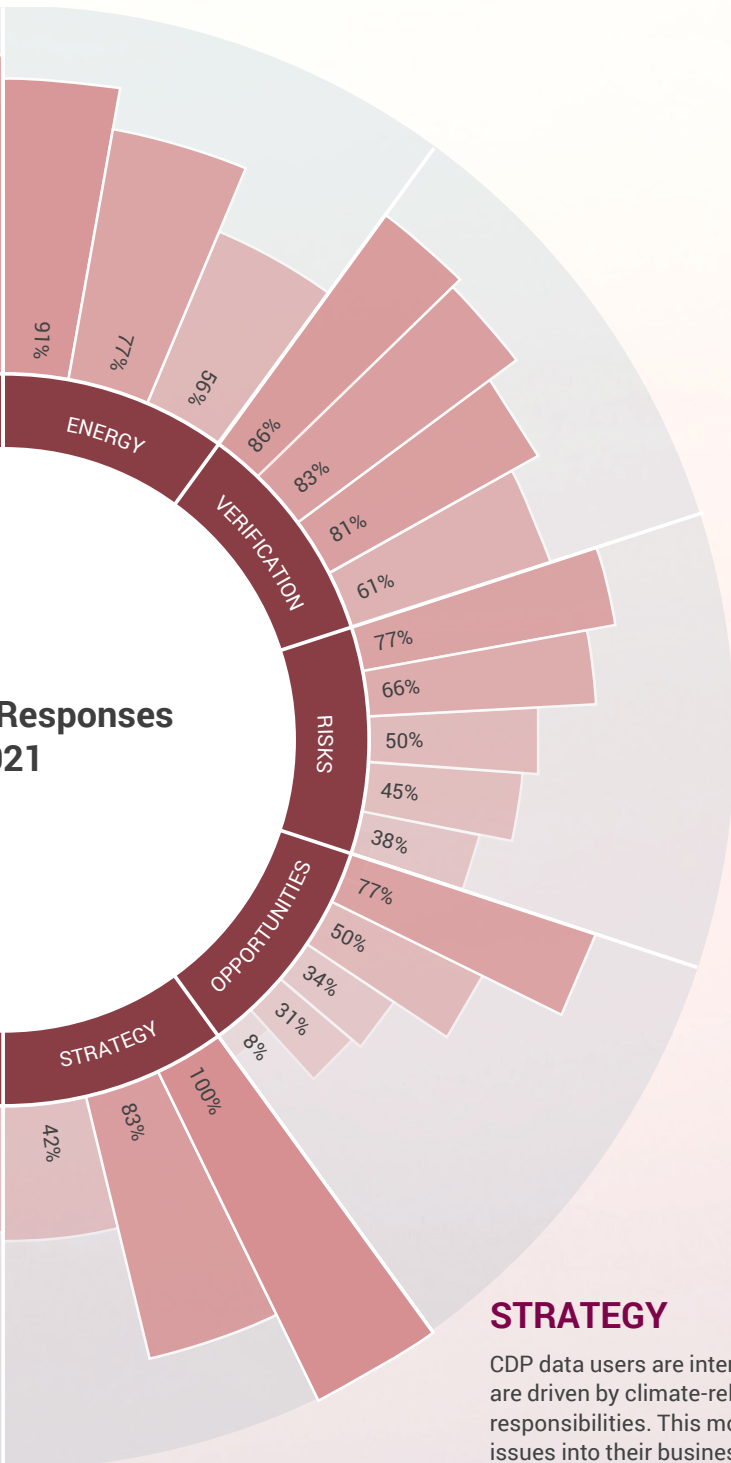
- 94% reported engagement with the value chain in climate-related
- 56% published a voluntary sustainability report
- 31% reported engagement with more than 50% of suppliers



ENERGY

Energy-related activities represent the largest share of greenhouse gas emissions in the world. Accurate accounting of emissions depends on a comprehensive account of energy. This module provides transparency on the consumption and generation of energy by organizations.

- ▼ **91%** for energy consumption totals (excluding feedstocks) in MWh
- ▼ **56%** for energy consumption totals from renewable sources (excluding feedstocks) in MWh > 0
- ▼ **77%** for fuel consumption totals in MWh (excluding feedstocks) by fuel type



Responses
21

STRATEGY

CDP data users are interested in companies' forward-looking strategies and financial decisions that are driven by climate-related future market opportunities, public policy objectives, and corporate responsibilities. This module allows organizations to disclose whether they integrate climate-related issues into their business strategy, have a transition planning, or use scenario analysis to inform business strategy.

- ▼ **100%** integrated climate-related issues into business strategy
- ▼ **83%** use climate-related scenario analysis to inform the organization's business strategy
- ▼ **42%** of companies intend to publish a low-carbon transition plan in the next two years

VERIFICATION

Verification and assurance are good practices in environmental reporting as they ensure the quality of data and processes disclosed. This module requests details on the verification status that applies to organizations' reported Scope 1, 2 and 3 emissions, as well as on the verification of other climate-related information reported in the CDP disclosure.

Third party verification or assurance process in place:

- ▼ Scope 1&2 **81%**
- ▼ Scope 1 **86%**
- ▼ Scope 2 **83%**
- ▼ Scope 3 **61%**

RISKS

This module helps companies to evaluate exposure to climate-related risks and opportunities over a range of time horizons, which is crucial to set a strategy for the low-carbon transition recognized in the Paris Agreement and UN SDGs. Responding companies appear particularly mindful of the reputational and regulatory risks posed by climate change. The percentage of indicators below in this module has increased compared to last year.

- ▼ **97%** identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on the business.

The most commonly reported risk types, with the potential to have a substantive financial or strategic impact on business, included:

- ▼ Emerging regulation **77%**
- ▼ Acute physical **66%**
- ▼ Chronic physical **50%**
- ▼ Market **45%**
- ▼ Reputation **38%**

OPPORTUNITIES

Besides the challenges that companies face, climate change also presents opportunities and it is crucial that companies consider these opportunities as well as risks. Among the companies that responded to the opportunities module in 2021, products & services and resource efficiency are the most reported opportunity types considered in organizations' climate-related risk assessments.

- ▼ **91%** identified any inherent climate-related opportunities with the potential to have a substantive financial or strategic impact on the business.

Most commonly reported opportunity types that have the potential to have a substantive financial or strategic impact on your business:

- ▼ Products and services **77%**
- ▼ Resource efficiency **50%**
- ▼ Energy source **34%**
- ▼ Markets **31%**
- ▼ Resilience **8%**

COMPANY RESPONSE OVERVIEW

CLIMATE CHANGE / TURKEY 2021

67

disclosing companies in total

In **Akbank**, the Sustainability Committee includes Executive and Independent Members of the Board, the CEO, CFO and Head of Investor Relations and Sustainability, and meets at least twice a year. Each meeting on the Sustainability Committee, a board-level representation, discusses progress on the organization's goals for climate change. In addition to the committee, there is a Climate Change Preliminary Committee consisting of Deputy General Managers which reports directly to the CEO.

Companies regulated by carbon pricing system (ie ETS, Cap & Trade or Carbon Tax)

PEGASUS HAVA TAŞIMACILIĞI A.Ş.	EU ETS
T.ŞİŞE VE CAM FABRİKALARI A.Ş.	EU ETS
TÜRK HAVA YOLLARI A.O.	EU ETS; Switzerland ETS; UK - ETS

CDP is acting on behalf of **590** investors with **US\$110 trillion** in assets and through CDP's global platform. Over 14,000 organizations worldwide disclosed data through CDP in 2021, including more than 13,000 companies worth over 64% of global market capitalization, and over 1,100 cities, states, and regions.

CDP requested the largest 100 listed companies included in the Borsa Istanbul 100 Index (BIST-100) and companies with high environmental impact in Turkey to disclose their environmental information in 2021. In total, 67 companies responded to the CDP Climate Change questionnaire in Turkey, up from 60 (10% increase) in 2020. Out of 67 companies, 41 are from the official sample (BIST-100) and 26 are outside of the official sample, including companies reporting voluntarily and referred to as "Self-selected Companies" (SSCs) or companies that are subsidiaries of international companies in CDP's global sample.

For the first time in the last five years, there has been an increase in the number of responding companies included in the BIST 100. The following analysis in this report includes 64 companies in total, excluding the companies that responded as "See Another" (SA), which means that the company is a subsidiary of a parent company that responds to CDP.

▼ Taking climate crisis into account from the highest position: governance & business strategy

The climate crisis is reaching irreparable levels, and water security risks are becoming more serious over time. Companies make a significant contribution to these developments, and must take serious steps to respond strategically to the climate crisis and bring about real change.

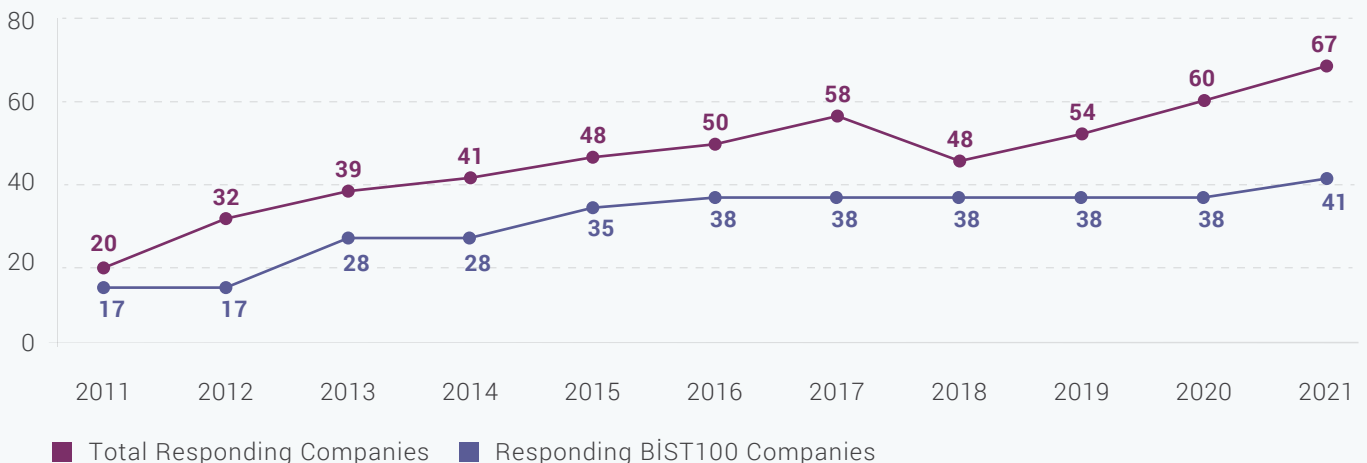
The issue of water security is appearing more frequently on companies' agendas. All of the companies that took action to ensure water security by reporting to CDP this year also reported on climate change. 64% of companies reporting on climate change also considered water safety.

To understand how companies are approaching the issue of climate crisis in the transition to a low-carbon future, one should look at the decisions made on the boards of directors and how often climate-related issues are discussed. **Board-level oversight of climate-related issues within organizations** is increasing year by year. Companies that include climate-related

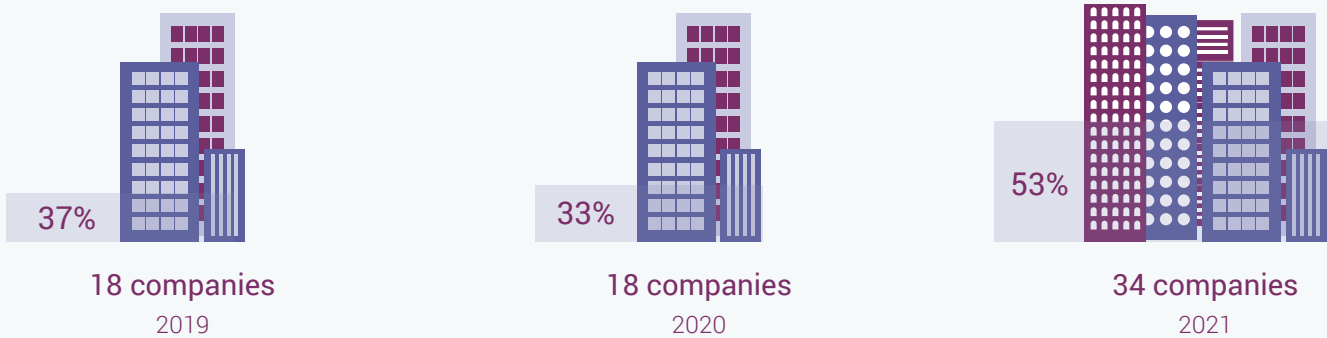
98%

have board-level oversight of climate-related issues

Number of Responding Companies



Companies with climate-related issues **scheduled in all board meetings**



QNB Finansbank's environmental activities are supervised under the Sustainability Committee. The Sustainability Committee, established in 2019, consists of the Executive-Vice Presidents (EVP's), and/or Directors, appointed by the Chairperson considering their core responsibility and at least two members of the Strategy Office. The Head of Risk Management also attends the meetings as an observer. The committee is the decision-making body for all matters relating to the bank's sustainability programme. Responsibilities include reviewing the strategic framework and ambition, deciding on priority initiatives for implementation with accountable working groups, monitoring performance and assessing ESG-related risks and opportunities. The Sustainability Committee reports key risks and opportunities to the Board of Directors via the Corporate Governance Committee when required. As a minimum, the Board of Directors and Corporate Governance Committee receives an annual update on the overall execution of the bank's sustainability strategy and performance.

issues on the agenda at every board meeting has risen from 33% last year to more than half (53%) of all responding companies this year. Unfortunately, this year there was no improvement in overcoming issues at the CEO level, and 56% of the companies were under the supervision of the CEO, as was the case in 2020.

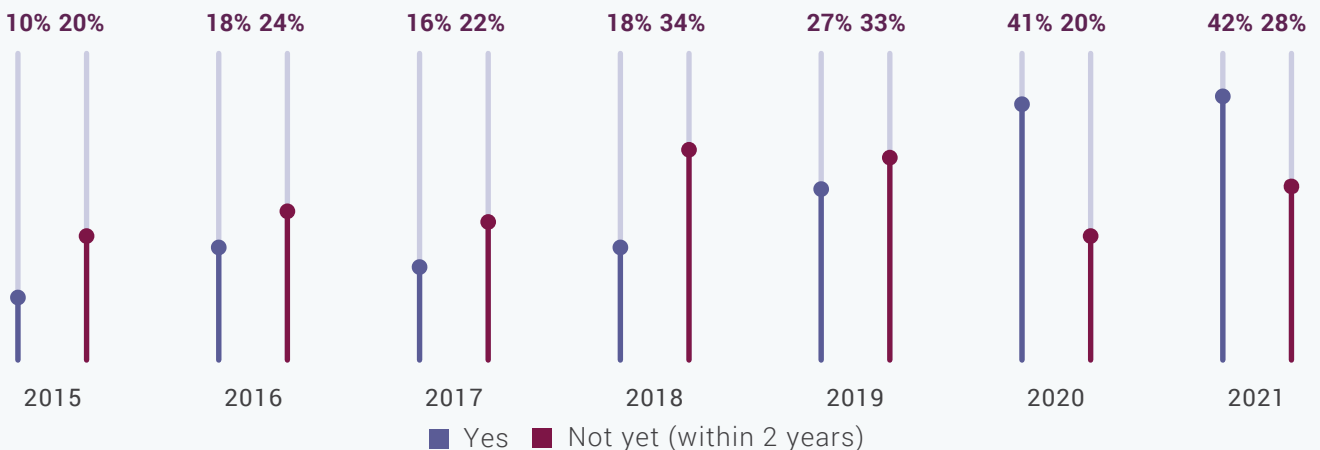
The Task Force on Climate-related Financial Disclosures (TCFD) strongly suggests that companies integrate **Internal Carbon Pricing (ICP)** to their portfolio for managing climate-related risks and opportunities. ICP is a tool to help identify revenue opportunities and risks as an incentive to drive energy efficiencies to reduce costs and to guide capital investment decisions.

This year, there was a slight increase in companies that use ICP in Turkey (42%). By assigning a monetary value to the cost of carbon emissions, companies that monitor and adapt their strategies and financial planning according to real-time and possible future changes in the external market have entered a plateau phase this year (75%).

92% Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes climate change into business strategy

42% have a low-carbon transition plan to be completed the next two years

Percentage of companies that use an **internal price on carbon**



Carbon Pricing Mechanism

Within the framework of the Paris Agreement's goal to decarbonize the global economy as of 2050, carbon pricing is recognized as one of the most effective strategies in terms of diminishing the effects of climate change on a nation and company basis.

Carbon pricing can be implemented through different mechanisms or market-based tools such as carbon taxes, the Emissions Trading System of the EU, internal carbon pricing or carbon credits.

Today many countries have their own carbon pricing systems which they have already started implementing. In Turkey's case, although there is yet to be a designated carbon pricing mechanism, the necessary framework designs are being prepared by the PMR Project (Partnership for Market Readiness) that is working under the Ministry of Environment, Urbanization and Climate Change with the supports of the World Bank.

The adaptation process of carbon mechanisms should be regarded as a preparation for the climate-oriented risks that might be the possible outcomes of carbon pricing and as a part of the decarbonizing strategy alongside supporting the companies with their internalization process of their greenhouse emissions' economic costs.

Building resilience: Risk Assessment & Opportunities

It is crucial for companies to evaluate financial and strategic risks and opportunities, and their assessment processes, in order to adapt their strategies to industry standards and guide their future operations. Companies should increase their resilience to protect themselves from the adverse financial effects of climate change, and risk assessment serves this purpose.

The proportion of risks related to climate change, which directly affects companies' activities, is increasing every year. The rate, which was 86% in 2018, 90% in 2019, and 94% in 2020, rose to 97% in 2021, reaching a record level. Now, almost all companies are aware of the risks posed by climate change and are developing prevention mechanisms. In this instance, the full participation of corporate governance in the issue of the climate crisis has created a new business normal. Although climate change related risks were largely associated with reputational concerns for many companies in the past, more and more companies are now addressing climate change-related risks and opportunities from all aspects of their business.

As stated above, 97% of companies identified **inherent climate-related risks** with the potential to have a substantive financial or strategic impact on the business. The **potential financial impact of risks** identified by companies in Turkey amounts to US\$276.7 billion in total, and the cost of the response to those risks amounts to US\$17 billion. **The total number of types of risks identified** as relevant by responding companies is 482.

In 2021, among the 10 indicators in companies' self-identified risk types considered in the organization's climate-related risk assessments; emerging regulation risks (with a rate of 95%), market risks (97%), and chronic physical risks (92%) were the top most reported risks. Besides, the ratio of companies that identified these three risk types as relevant to their operation has increased dramatically since last year.

The most reported **risk type** with the potential to have a substantive financial or strategic impact on the business is emerging regulation (77%) of reported risks. Regulations were also the most reported risk type last year by 65% of the companies. The significant increase in reporting regulatory risks may be attributed to the fact that the government's climate-related policy

According to a report on European Union Emission Trading System (EU-ETS), published by the International Carbon Action Partnership on May 18th 2021, the average price of a EUA (European Union Allowance) was around US\$28 in 2020. However, different regions may have different prices per ton of CO₂; different applications may also require different prices. This is why **Tekfen Holding** has started using differentiated pricing and evaluating its carbon price annually. For Tekfen's operations in Turkey, the company uses a variance of prices to calculate its exposure to risks related to emerging regulations. The company's minimum price (US\$3.41) is taken from an ETS simulation study performed under the Partnership for Market Readiness (PMR) project, whereas the maximum price is taken from the above-mentioned study on EU-ETS. Another emerging regulation is the EU Carbon Border Adjustment Mechanism, for which Tekfen uses the minimum and maximum prices taken from the projections of TUSIAD's recently published report titled *The New Climate Regime Through the Lens of Economic Indicators*. In this report, carbon is valued between US\$34-57. Tekfen Holding uses this price to calculate its risk for the products that it exports to the EU. The company also uses the price of carbon for its GHG emission reduction projects in order to calculate expected income, for which the company uses the price of US\$0.45/ton for VCS projects and US\$0.90/ton for Gold Standard¹ projects.

US\$276.7 billion
the amount of potential financial impact of risks

US\$260.2 billion
the amount of potential financial impact of opportunities

83%
deploying climate-related scenario analysis for business strategy

482
total number of risks identified

214
total number of opportunities identified

¹ Gold Standard: The Gold Standard (GS) is a voluntary carbon offset program focused on advancing the United Nations' Sustainable Development Goals (SDGs).

Within the framework of approximation to UNFCCC under the Paris Agreement, Turkey has submitted its Intended Nationally Determined Contribution (INDC) and has committed to reduce its GHG emissions by 21% from the Business as Usual (BAU) scenario by 2030. This commitment is likely to result in energy efficiency or GHG emissions targets allocation and development of a carbon pricing mechanism, especially for the industry. There is also the risk of an additional cost to the company to the MRV ETS under the EU Green Deal. Therefore, **Brisa Bridgestone Sabanci Lastik** may potentially be under obligation to reduce GHG emissions or increase operational cost as a result of additional cost to be associated with carbon pricing. National MRV regulation is likely to be revised, which may bring emission quotas which can force industry to face carbon cap allocation. Currently, as part of Turkey's ETS Simulation Application Development, several workshops have been completed successfully and developments are expected to be implemented in the short to medium term. Following the introduction of Science Based Targets (SBTs) and alike ambitious approaches, the efforts and mechanisms to try and limit GHG emissions will be heightened. In 2021, the SBTi has validated Brisa's Scope 1 and 2 target ambitions as being in line with a 1.5°C trajectory. These efforts may result in additional pricing mechanisms to be introduced in the future, therefore taking every measure possible to proactively improve GHG emissions performance is crucial.

Germany is one of the major countries where **Ekol Lojistik**'s operations are taking place. As per the German Fuel Emissions Trading Act, it is expected to pay a tax of EUR 0.08 per litre of diesel used. In 2020, the total diesel consumption was 1,650,741 litres. The increased cost of forwarding will affect Ekol, even though most of the transportation is carried out through rental trucks in the EU.

has been uncertain until the ratification of the Paris Agreement in the Turkish Grand National Assembly in October 2021. This marked the end of policy uncertainty, and regulatory risks are now more predictable.

The number of companies reporting market risks (45%) has increased dramatically since last year. Market-based instruments such as sanctions related to the Emissions Trading System, especially in trade with Europe, are now an essential element in the risk analysis of companies. Reputational risks (38%) are among the risks that companies evaluate as having a significant financial impact. Acute (66%) and chronic (50%) physical risks follow, attributable to the heatwaves, floods, wildfires, and extreme weather conditions, which have drastically increased in numbers and severity in Turkey.

Among the 18 **risk drivers** identified by their potential to have a significant financial or strategic impact on companies this year, the number of companies choosing **Carbon Pricing Mechanisms** increased from 59% to 70%. It is expected to observe such an increase in the rate of Carbon Pricing Mechanism as the risk trigger, considering national and international regulations. Likewise, the ratio of mandates on, and regulation of, existing products and services rose from 22% to 27%. This indicates the impact of public regulations on the market. There is a certain correlation between regulations and market interaction.

The potential financial impact of opportunities identified by companies in Turkey amounts to US\$12.8 billion in total. The total number of opportunities identified as relevant is 180.

Awareness of climate-related opportunities are equally important for companies as risks. **Climate-related identified opportunities** that have the potential to have a significant financial or strategic impact on company operations have increased each year, reaching 91% of companies identified this as an opportunity this year from 89% in 2020. Therefore, the proportion of companies with identified opportunities (91%) resulting from climate change is lower than the share of companies with identified risks (97%). As in the previous year, the number of identified risks was higher than the opportunities. Identifying risks more than opportunities indicates that the opportunities that arise during the adaptation and mitigation phases are underutilized or inaccessible.

Identifying opportunities in the transition to a low-carbon economic model is crucial for companies to realize this transformation. There are many drivers for companies to

Turkey became a party to the Kyoto Protocol on 26 August 2009. However, Turkey was not included in the Protocol Annex-B list which contains Annex-I signatory countries. Accordingly, Turkey has no numerical limit or reduction target in the first obligation phase of the Protocol, which covers 2008 to 2012. However, in Paris at COP21, Turkey signed the Paris Agreement and submitted its NDC plan to the UN Secretariat. According to the NDC, Turkey's target is to reduce 21% of its emissions according to business as usual scenario by 2030. However, this target has not been allocated to sectors yet, and so the financial implications that would occur from the mitigation costs cannot be estimated and calculated. This is a grey area for Turkey and our sector. To manage the risk, **Arçelik** have annual energy consumption reduction targets, renewable energy power plant establishment target, science-based and net-zero emission targets. Arçelik's Sustainability Council contributes these targets every year for increasing energy efficiency in production and using electricity produced by renewable energy sources (RES) to reduce Scope 2 GHG emissions. With energy efficiency projects in Arçelik Production Plants between 2010 to 2020, Arçelik has saved nearly 960,000 GJ energy with 1,470 projects. In total, an emissions reduction of 89,739 tCO₂e GHG has been achieved since 2010. Arçelik has been using electricity produced from renewable energy source (RES) in Turkey operations since 2012. The supply rate of electricity generated from RES, was realized approximately as 1% in 2012, 28% in 2013, 78% in 2014, 82% in 2015, 88% in 2016, 77% in 2017, 75% in 2018, and as 100% in 2019 and 2020.

Competition in the apparel and lifestyle markets is getting more intense day by day. At **Mavi Giyim**, we should address the rising awareness of climate-related issues by showing our customers we are committed to reducing ours and by extension, their environmental impact. Failing to take actions to combat climate change and show our commitment to our customers could result in reduced demand for our products and decrease our revenues. To address the need for sustainable products, we have launched our most sustainable collection "All Blue," which includes products made with more efficient processes and manufactured with more sustainable materials.

Inclusion of the green bonds within the national Bond Guarantee Fund will offer the Bank with the opportunity to diversify and enhance its access to capital. The Bond Guarantee Fund will be established at the end of 2021, within the scope of Turkey's New Economy Reform package, in order to facilitate the bond issuance of real sector companies. The Fund will guarantee that, in the event of an issuing company's default, part of the investors' money will be secured by the Bond Guarantee Fund. The Fund is expected to accelerate the debt capital markets, increase investor confidence and encourage companies to borrow through capital markets. In reference to the articles "Green Bond and Sukuk", finance of environmentally sensitive investments will be encouraged and supported. **Türkiye Kalkınma ve Yatırım Bankası** plans to start issuing green bonds in 2022. Inclusion of green bonds within the Bond Guarantee Fund is expected to increase the demand for the Bank's green bonds, which will allow the Bank to access more capital and diversify its financial assets. Additionally, we expect this regulation avail new business opportunities for the Bank, paving the way for providing financial advisory and intermediary services in certain green bond issuance operations.

exploit opportunities. Ease of access to low-carbon technologies, developments in energy efficiency, and the convenience of the market for this transformation are some of those drivers that companies follow.

The most commonly reported climate-related opportunity drivers are a shift in consumer preferences (decreasing from 46% in 2020 to 39%) and development and/or expansion of low emission goods & services (increasing from 31% in 2020 to 34%).

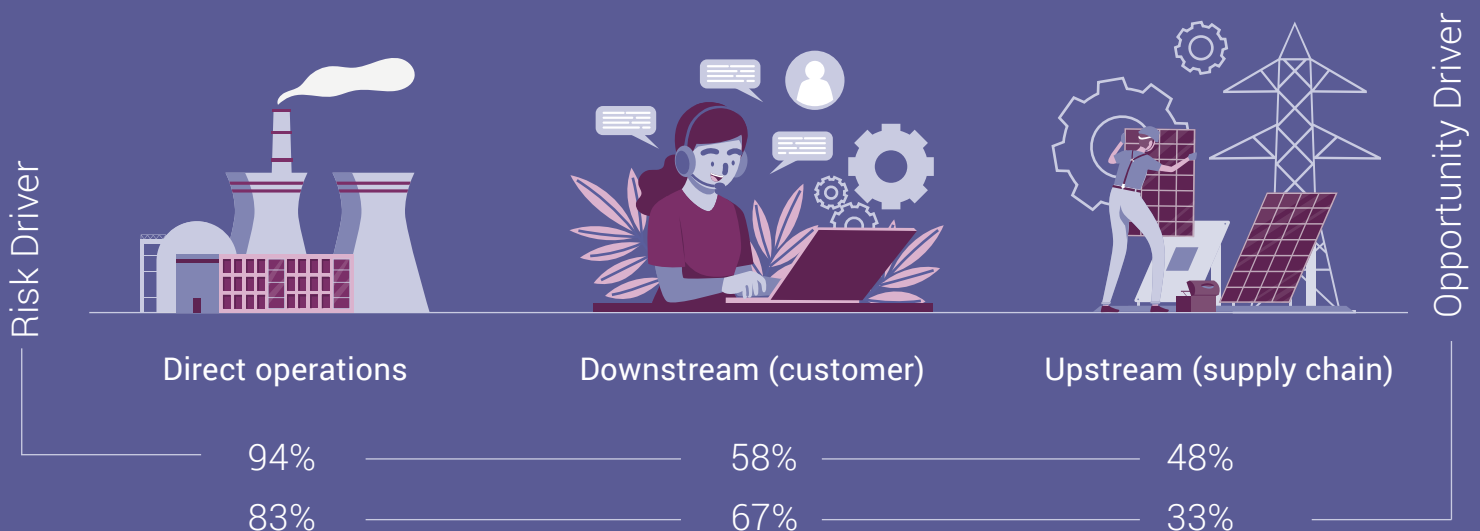
This year, more climate-related opportunities were identified in upstream activities covering the supply chain. This figure, which was 17% in 2020 and increased to 33% in 2021, indicates that adding the residual value chain seems more attractive in identifying climate-related opportunities.

In 2021, companies were also asked to report the **primary potential financial impact data** related with the risks and opportunities they disclosed as a key entry for CDP's scoring methodology. 80% of companies provided at least one figure for the potential financial impact of risks (67% in 2020) and 78% for the potential financial impact of opportunities (65% in 2020). The top identified cause of the primary potential **financial impacts of the risks** is "increased indirect/operating costs" (70%) that are often linked to GHG emissions pricing. Besides, increased revenues resulting from increased demand for products and services (64%) are the top identified causes of potential **financial impact of the opportunities**.

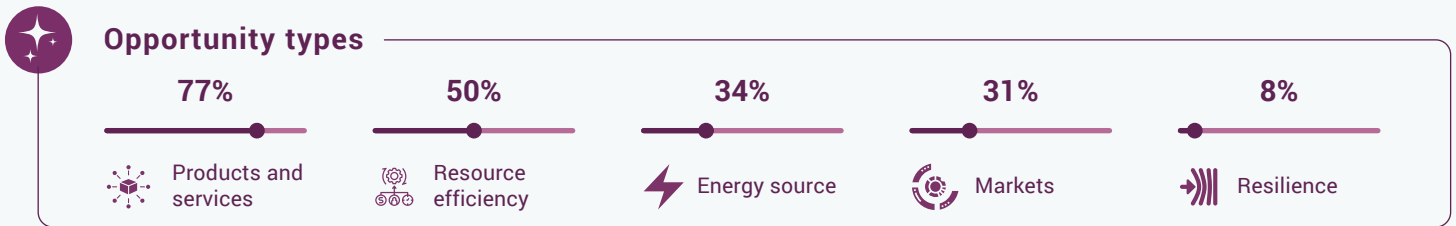
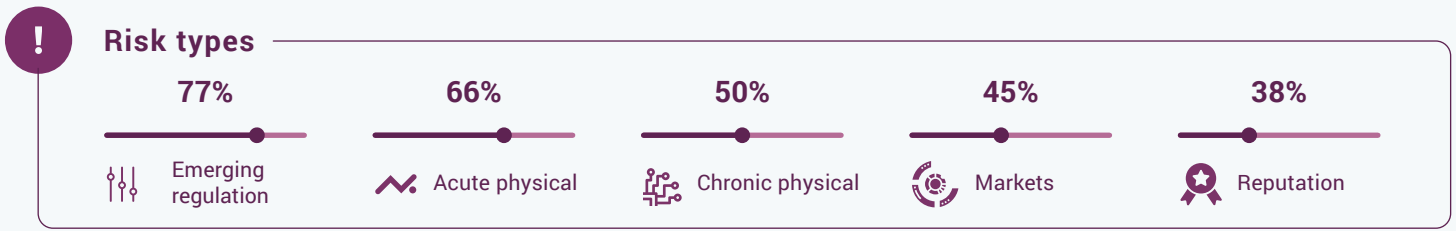
In our country, it is prohibited to manufacture and sell devices containing R22 fluids in the HCFC group in accordance with the "Regulation on Substances that Deplete the Ozone Layer", related regulations, communiques and the international agreements that form the basis for them, published by the Ministry of Environment, Urbanisation and Climate Change. These fluids are sold for service purposes only and are subject to a reduction schedule. By 2025, it is predicted that the sale of these fluids will be stopped even for service purposes. 2,848 kg of R22 gas within the scope of the Kyoto Protocol was used in the reporting period, representing 6.4% of the refrigerant gas stock used by **CarrefourSA**.

78%
provided at least one figure for the potential financial impact of risks

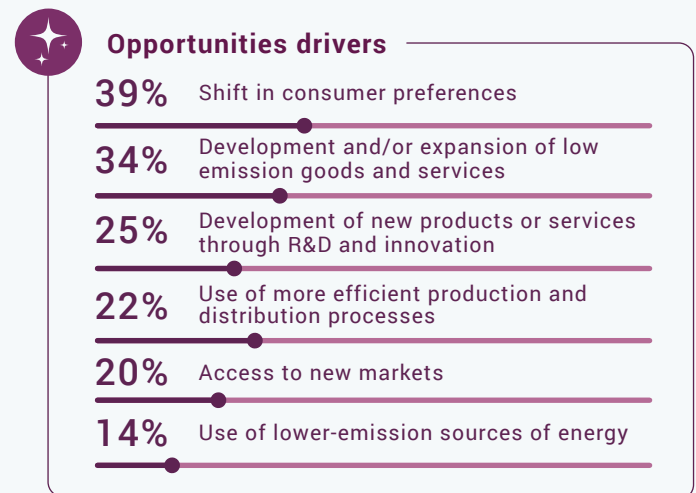
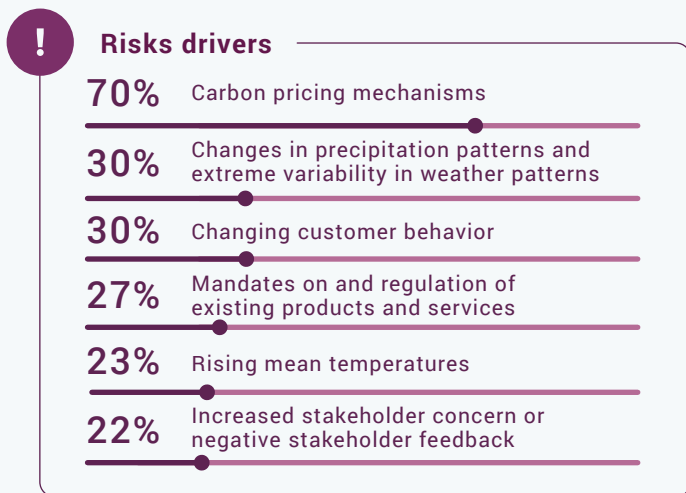
Where in the value chain does the **risk and opportunity driver** occur?
(Percentage of reporting companies)



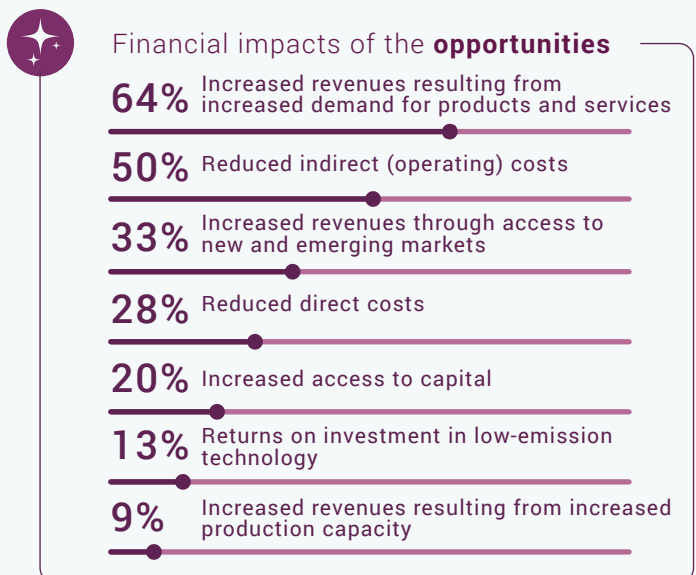
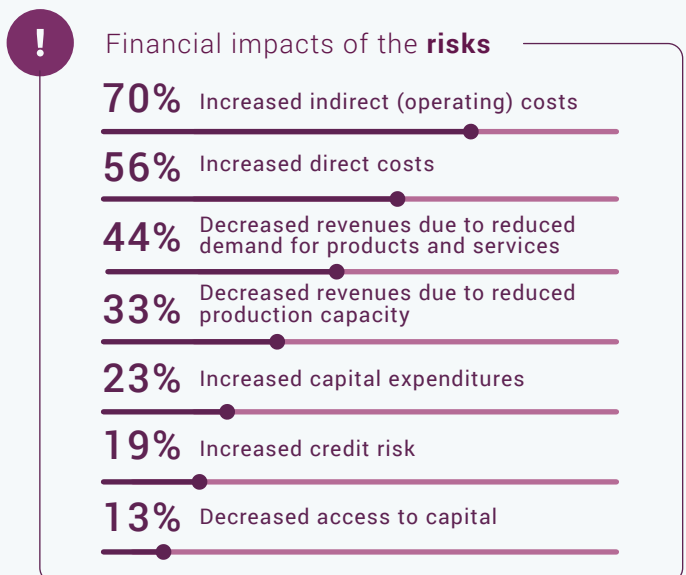
Most commonly reported **risk & opportunity types** with the potential to have a substantive financial or strategic impact on the business (Percentage of reporting companies)



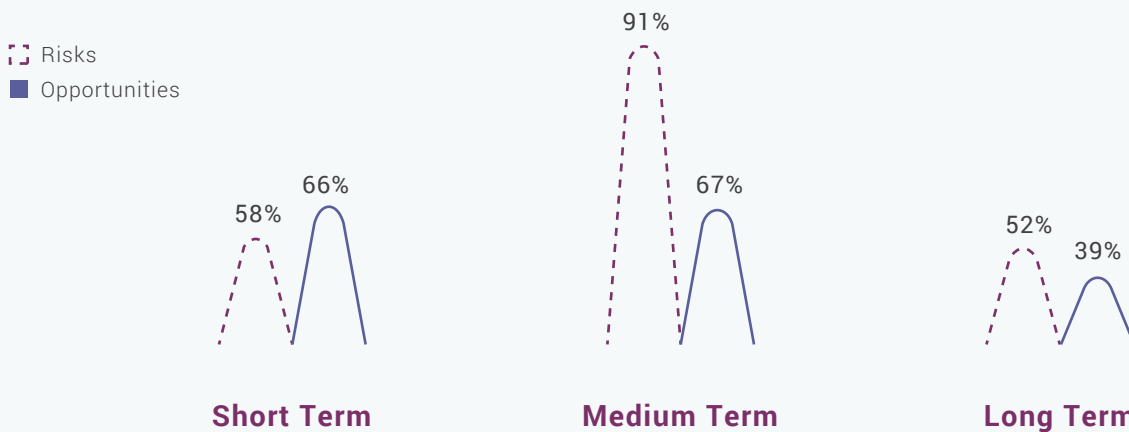
Most commonly reported **risk & opportunity drivers** with the potential to have a substantive financial or strategic impact on the business (Percentage of reporting companies)



Primary potential financial impacts of the **risks & opportunities** identified (Percentage of reporting companies)



Time horizon of the identified risks and opportunities (Percentage of reporting companies)



91%
have an emissions target that was active in the reporting year

Aligning climate action with climate science: setting a science-based target

A growing number of companies worldwide are aligning their emissions reduction goals with the Paris Agreement by using the best available climate science to set GHG reduction trajectories in line with what would be required to hold global warming well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. More than 1,000 companies are now working with the Science-Based Targets initiative (SBTi) - a partnership between CDP, UN Global Compact, the World Resources Institute, and WWF - to reduce their emissions in line with climate science. Science-based targets (SBTs) provide a clear framework for best practice target setting by specifying how much and how quickly a company needs to reduce its GHG emissions across scopes. Using the most recent climate science, the science-based target setting methods determine a company's share of the remaining global carbon budget based on company attributes such as their sector and provide a pathway to companies by specifying how much and how quickly they need to reduce their GHG emissions.

Targets and Performance

In Turkey, 91% of responding companies had an **active emissions target in the reporting year**. A further 39% undertake both **absolute and intensity targets** (26% in 2020), and the most commonly reported emissions reduction target type is intensity target (28%) in 2021, decreasing from 37% in 2020. This year, the proportion of companies that provided details on their emission intensity target(s) and disclosed progress on these targets increased from 11% to 23%.

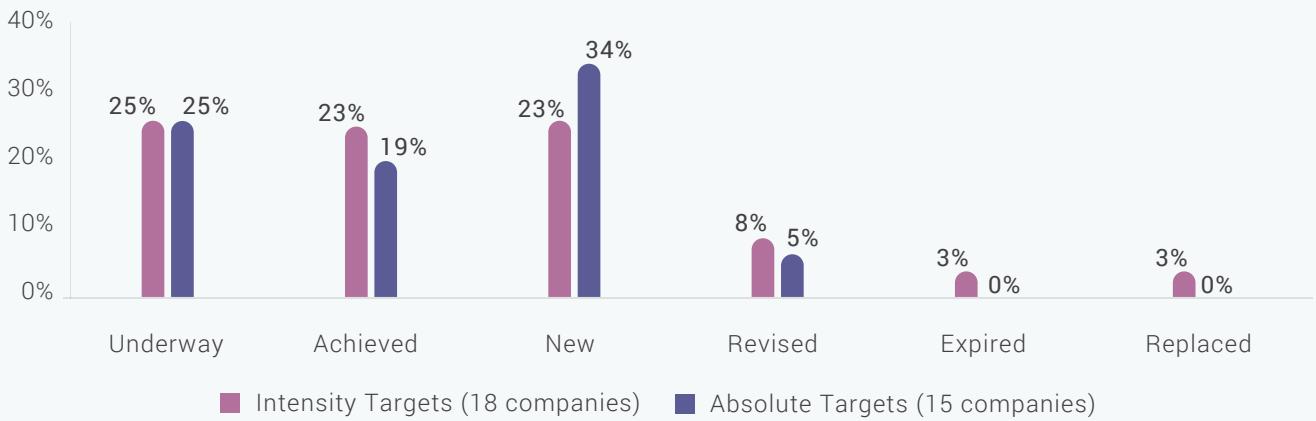
The number of companies that reported not having set an emission target decreased from 20% last year to 9% this year. The overwhelming majority of companies are now setting company emissions targets.

23% of reporting companies in Turkey have **achieved their current intensity targets by 100% in the reporting year**. However, for most companies, achieving the target is still underway (a decrease from 37% in 2020 to 25% in 2021). As per the **absolute targets**, which are crucial to drive companies' emissions reductions no matter their changes in output or size, 19% have achieved their targets and 25% of companies are still underway (20 targets in total).

To deliver against their targets, global companies are increasingly turning to clean energy, cutting emissions while simultaneously increasing their energy productivity and reducing their energy use. 9% of responding companies in Turkey have an **energy consumption or efficiency target** (11% in 2020). Targets for replacing existing energy sources with renewable energy should be a part of a company's strategy, but few companies in Turkey have set these types of targets. This year **Tekfen Holding** is the only company that has set a fossil fuel reduction target.

At **Garanti BBVA**, we have been submitting yearly basis emissions intensity reduction targets. In 2016, after COP21 and our commitment to the goals of the Paris Agreement, we decided to take action and determine a long-term target emission intensity reduction target that covers our yearly-basis targets. The target is 50% reduction in our total Scope 1 and 2 emissions per our total assets from 2012 to 2020. Since 2012, when our Environmental Management System was implemented, through our energy efficiency initiatives we have managed to decrease our emission intensity by 67% (66% in 2018, 56% in 2016 and 60% in 2017). The total yearly GHG emissions in tCO₂e reported under Scope 1 and 2 of the GHG included GHG emissions (CO₂, CH₄ and N₂O and f-gases) from energy consumption from fossil fuel sources for heating, generators, leased vehicle fleet in commercial use and refrigerants for Scope 1, and purchased electricity by Garanti BBVA's operations in Turkey (headquarters, service buildings, branches and ATMs) for Scope 2. Scope 3 emissions are not included within the scope of our intensity target. The IPCC Fifth Assessment Report factors are used for global warming potentials and emission factors. Our Grid Emission Factor is calculated based on the most recent data available by TEİAŞ. In addition, earlier this year, the bank announced its absolute carbon emissions reduction target based on Science-Based Targets methodology, in line with the Paris Agreement. Accordingly, Garanti BBVA pledges to reduce its Scope 1 and Scope 2 emissions by 29% by 2025 and 71% by 2035.

Progress made against **emission targets** (Percentage of reporting companies)



41% anticipate setting science-based emission reduction targets in the next two years

The number of companies adopting **science-based targets** is still limited in Turkey. However, the number of companies that do not plan to set a Science-Based Target in the next two years decreased from 19% in 2020 to 11% this year, revealing a promising picture. Only **Kayseri Ulaşım** has a science-based target approved by the Science Based Targets Initiative (SBTi).

The companies that have been reporting for many years in Turkey pioneered companies that reported for the first time. Companies that have set ambitious targets on climate change for many years and have disclosed these environmental data have created a new business norm. Of the companies that do not set any emission targets, 4% are first-time reporting companies and 9% are companies that have been reporting for a long time – indicating the first-timers demonstrate a similar level of awareness and ambition as long-time reporting companies.

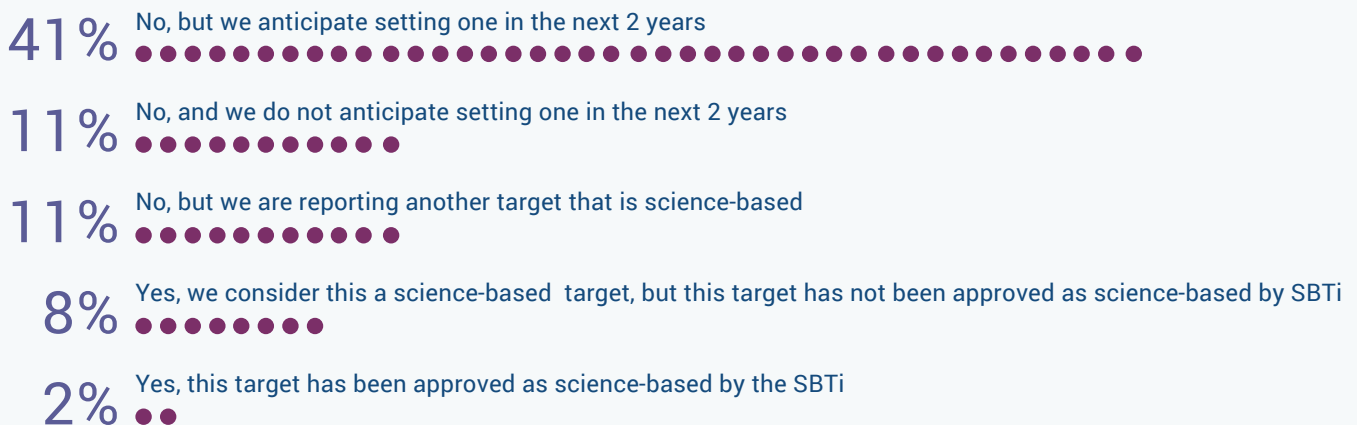
Tracking progress: Emissions trend & verification

CDP encourages investors, companies, cities, and governments to build a truly sustainable economy by measuring and acting on their environmental impact with the motto “you can’t manage what you don’t measure”. The disclosure process is vital to understand exactly where and how they operate today and to set more informed targets.

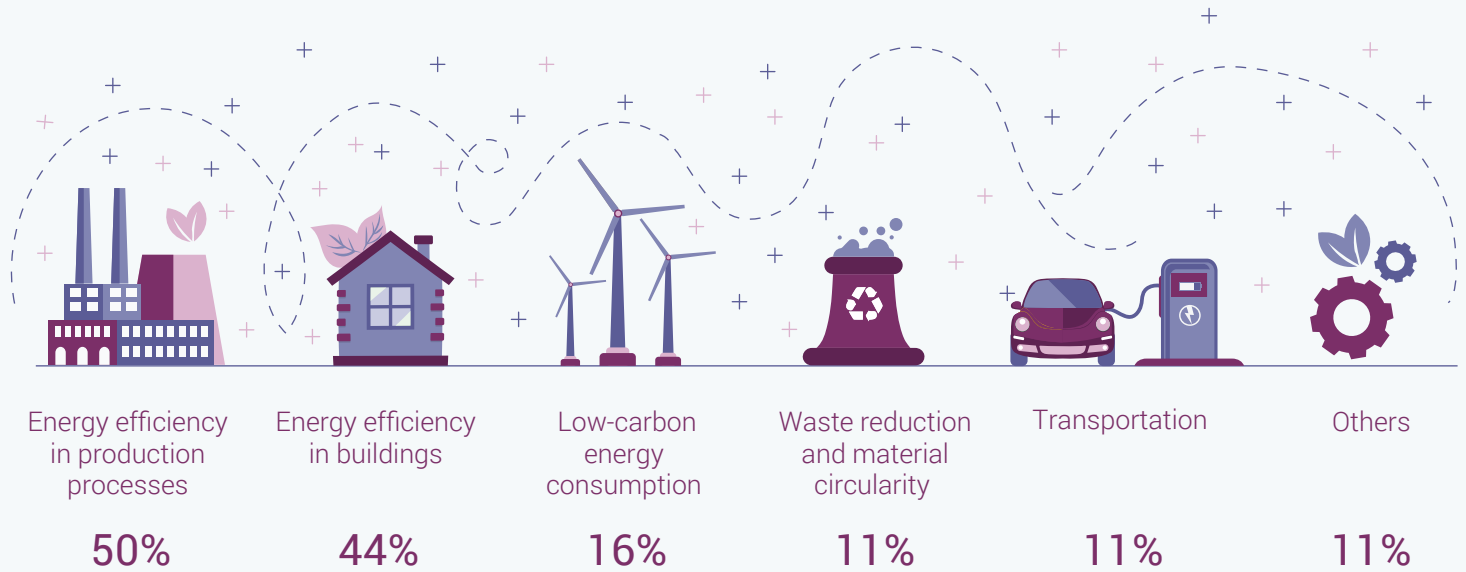
97% of companies from all sectors reported their **Scope 1 and 2** emissions this year. As can be seen in the chart, companies do not tend to disrupt their Scope 1 and 2 reporting since they first started to disclose through CDP. In addition, as a positive development, **Scope 3** emission measurements have increased to 92% this year, making significant progress over the years.

94% have active emission reduction initiatives

Science Based Target status of companies (Percentage of reporting companies)



Top five **initiatives implemented** in the reporting year / activity type (Percentage of reporting companies)



44%
existing products and/or services enable third parties to avoid GHG emissions

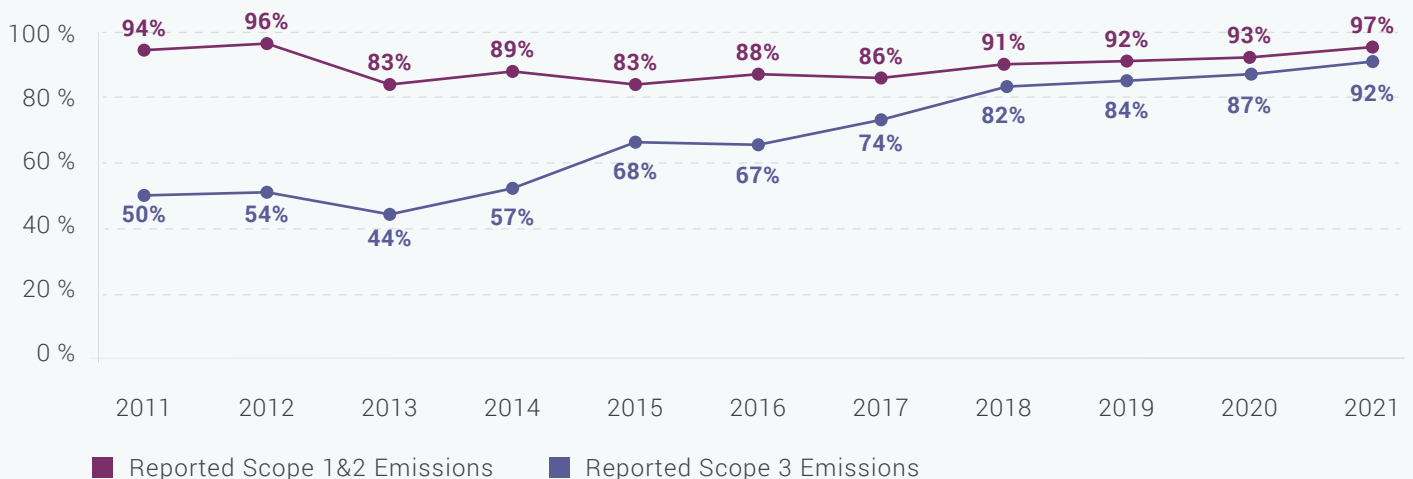
Where year-on-year comparison is possible, there is considerable progress, with a majority (67%) of companies reporting a **reduction in emissions**. However, 26% of companies reported that they made **absolute increases in emissions** over the past year. Increased emissions are not necessarily a sign of poor progress on climate change. For disclosing companies, emissions growth was mainly related to an overall increase in output (possibly due to recovery from COVID-19) and changes in measurement methodology.

Enerjisa Enerji has a target to reduce the impacts from theft/loss of emissions. (5% reduction of theft/loss emissions compared to 2020 levels until 2025, therefore 5% reduction in theft/loss related Scope 2 emissions intensity target was set). In preparation for our 4th Regulatory Period (2021 to 2025) we set 2020 as our base year and established a minimum target of a 5% reduction in our power distribution loss emission intensity, by the end of our tariff period in 2025. This target was set after the previous target was achieved in 2020.

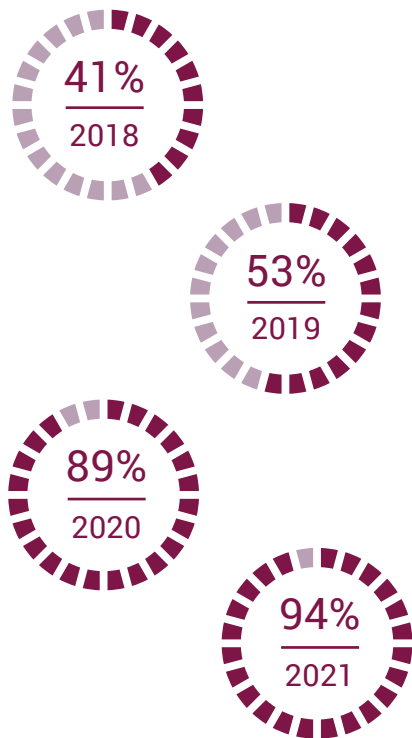
97%
reported scope 1 & 2 emissions

Third-party verification and assurance processes are critical factors for the reliability of environmental data that companies disclose. 81% of responding companies in Turkey indicated that their Scope 1 and Scope 2 emissions have been externally assured or assurance is underway

Reported Scope 1, 2 and 3 emissions from previous year (Percentage of reporting companies)



Percentage of companies reporting engagement with the **value chain on climate-related issues**



31% engage with more than half of suppliers to drive emission reductions

(70% in 2020). Since Scope 3 emissions are often more difficult to quantify compared to Scope 1 and Scope 2 emissions, the level of **third-party verification** is comparatively lower in this area in general. However, the number of companies verifying their Scope 3 emissions increased from 41% in 2020 to 61% in 2021.

▼ **Engagement with stakeholders**

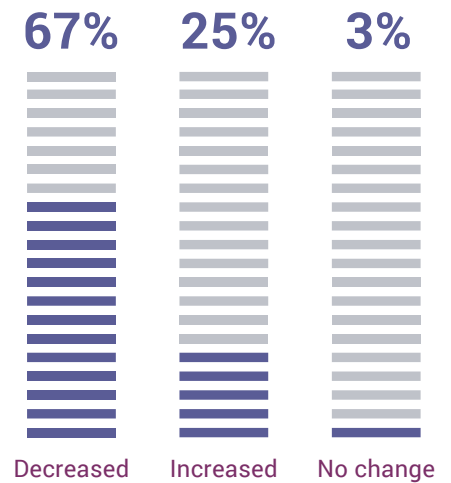
Businesses need to engage various stakeholders to tackle the climate crisis with a broader perspective, which should undoubtedly include value chain operations. Collaborating with the value chain can help ensure the incorporation of emission reduction activities throughout the lifecycle of the product, considering both upstream and downstream emissions. 94% (89% in 2020) of companies **engage with their value chain** on climate-related issues but only 31% engage with more than half of their suppliers by number.

Companies can have a crucial impact on climate change public policies. Most of the reporting companies (97%, an increase from 91% in 2020) **engage in activities** that directly or indirectly influence public policy on climate-related issues. Some engage directly with policymakers, while others do so through trade associations and research organisations. The percentage of companies sitting on the board of any trade associations or providing funding beyond membership is 56% (52% in 2020).

91% of companies **published information** about their response to climate change and GHG emissions performance for this reporting year, outside of their disclosure to CDP. A further 56% published voluntary **sustainability reports**.

Gross global emissions

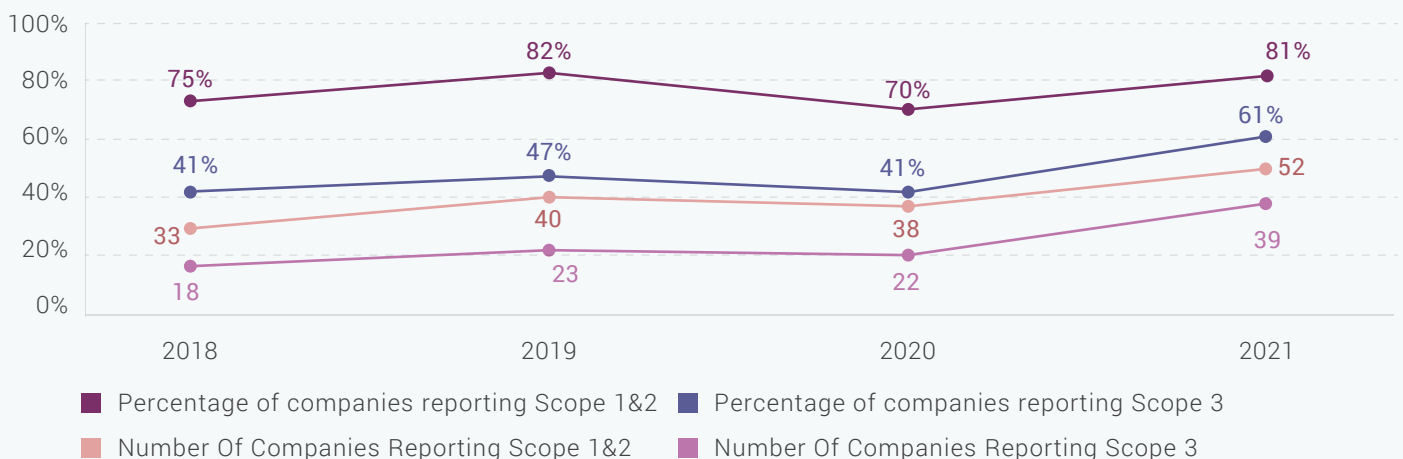
(Scope 1 and 2 combined) for the reporting year compared to those of the previous reporting year (Percentage of reporting companies)



81% Scope 1 and 2 emissions have been externally assured or assurance is underway

56% published voluntary sustainability report

Third-party verification or assurance process in place



COMPANY RESPONSE SUMMARY

WATER SECURITY / TURKEY 2021

BUSINESS STRATEGY

This module aims to collect information on how a company is adapting its long-term business model to secure a sustainable future, in terms of both its resilience and securing water for all.

- 93% of the respondents monitored targets and goals at a corporate level
- 66% of the respondents identified any water-related outcomes from the organization's climate-related scenario analysis
- 56% of the respondents identified reduced environmental impacts as primary motivation behind the water related targets
- 20% of the respondents use an internal price on water

GOVERNANCE

This module captures the governance structure and mechanisms of organizations concerning water security. It provides data users with an understanding of an organization's approach to water-related issues, both at and below the board-level.

- 98% have a board-level oversight of water-related issues within the organization
- 85% have a company-wide water policy
- 59% reported that the CEO has responsibility for water-related issues

VERIFICATION

CDP data users often ask about the credibility and quality of data disclosed. The information requested in this question could help strengthen confidence in the organization's response to the water security questionnaire. CDP supports the development and use of verification methodologies as it promotes good practice in environmental disclosure.

- 61% of the respondents verified water withdrawals
- 41% of the respondents verified water consumption
- 46% of the respondents verified water discharge
- 20% of the respondents verified water recycled/reuse

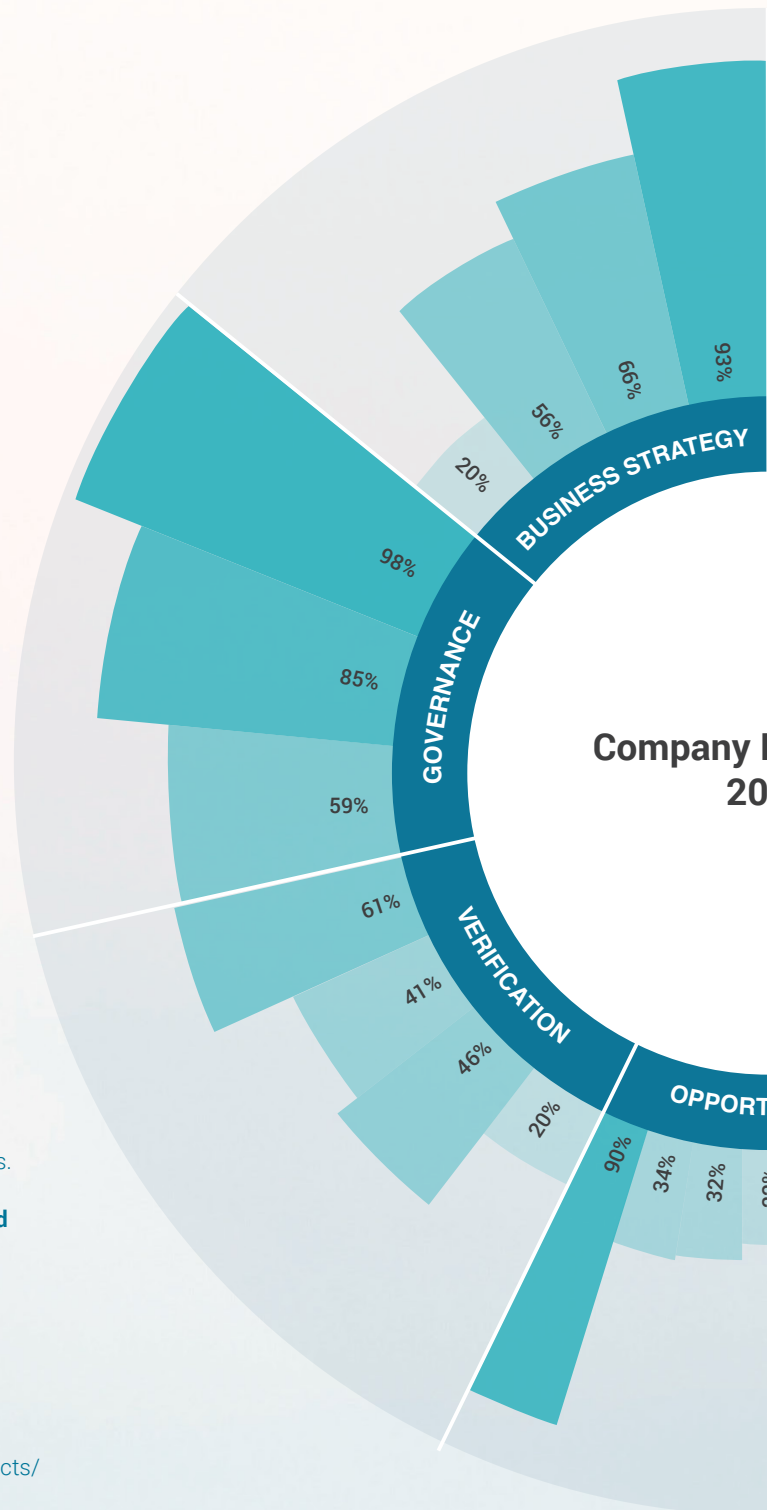
OPPORTUNITIES

The structure of the water security questionnaire allows a company to tell investors, customers and other data users about its water stewardship journey. For this reason, CDP invites companies to share any water-related operational or market opportunities that could substantively benefit their business. With this module, data users understand the current state of a company's use of water and how water-related opportunities are identified.

- 90% of the respondents identified water-related opportunities with the potential to have a substantive financial or strategic impact on the business.

Primary water related opportunities currently being realized that could have a substantive financial or strategic impact on the business:

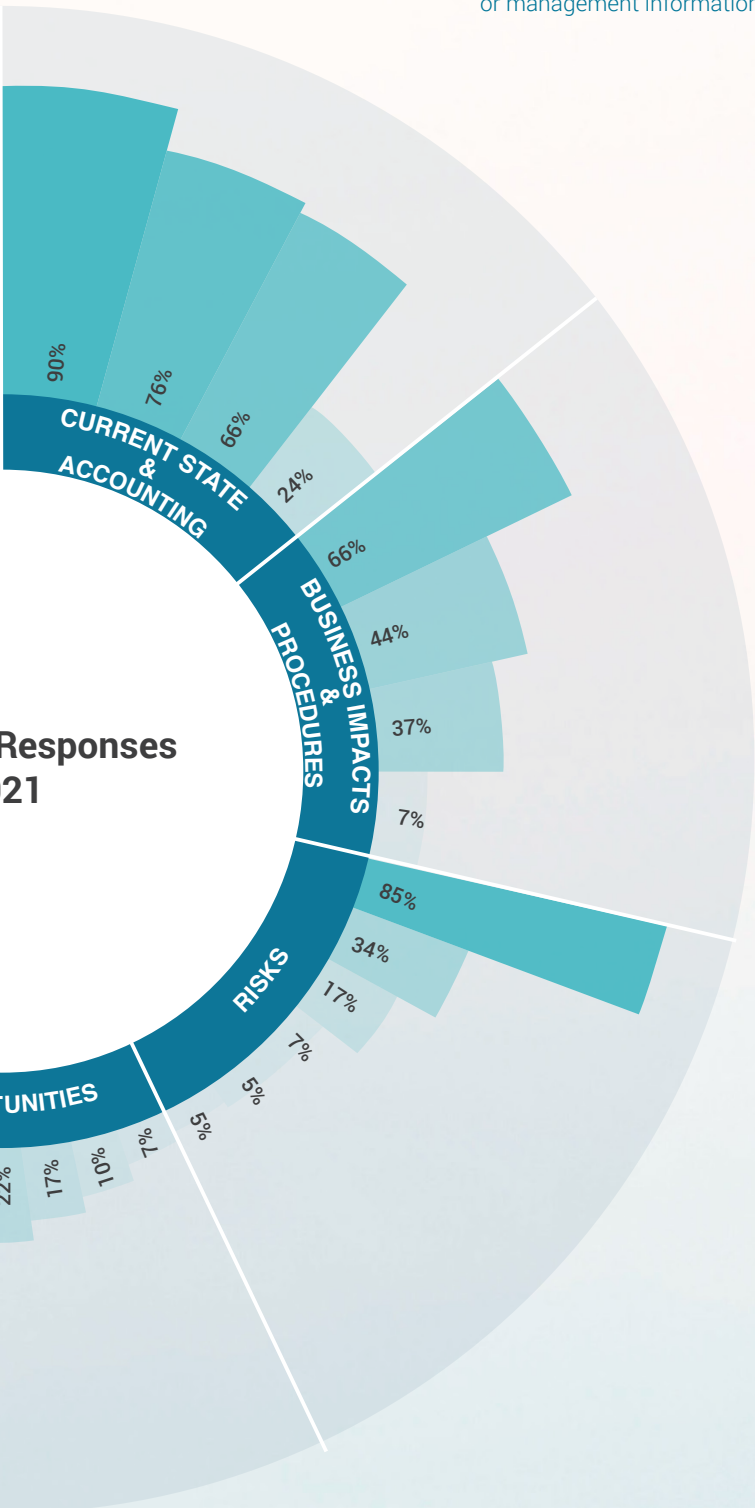
- 34% of the respondents identified cost savings
- 32% of the respondents identified improved water efficiency in operations
- 17% of the respondents identified increased brand value
- 22% of the respondents identified sales of new products/services
- 10% of the respondents identified increased sales of existing products/services
- 7% of the respondents identified stronger competitive advantage



CURRENT STATE & ACCOUNTING

This module allows CDP data users to build a picture of a company's dependence on water of a particular quality in direct operations and the value chain, and to see where in the value chain lies the most dependence on water. The questions allow companies to demonstrate how well they understand their corporate hydrology by providing information on the monitoring of relevant water aspects, and volumetric data on withdrawals.

- 90% regularly measured and monitored all of the water aspects across all operations
- 76% of total water withdrawal was sourced by third party sources
- 66% reported that more than half of total withdrawals sourced from water-stressed areas
- 24% of the respondents request from more than half of suppliers to report on their water use, risks and/or management information



BUSINESS IMPACTS & PROCEDURES

This module focuses on water-related impacts that have occurred in the past reporting year, including those resulting from regulatory violations. The module requests information about the procedures that organizations have in place to manage issues significant to their sector and to understand inherent risk exposure.

- 66% assessed water-related risks for more than six years
- 44% have procedures for identifying and assessing water-related risks covering both direct operations and supply chain
- 37% assessed water risks as part of the other company-wide risk assessment systems
- 7% of companies stated that flooding is the most reported impact driver of the water-related detrimental impacts experienced by the company

RISKS

A better understanding of the number, location and nature of inherent water risks is valuable for disclosing companies, as well as CDP data users. This module allows companies to show that they have a clear awareness of the extent to which they are exposed to inherent water risks in their direct operations and other parts of their value chain.

- 85% of the respondents identified inherent water-related risks with the potential to have a substantive financial or strategic impact on the business.

Potential impacts of identified risks in the direct operations are:

- 34% increased operating costs
- 17% reduction or disruption in production capacity
- 7% increased production costs
- 5% brand damage
- 5% closure of operations

COMPANY RESPONSE OVERVIEW

WATER SECURITY / TURKEY 2021

Water consumption: The amount of water drawn into the boundaries of the organization (or facility) and not discharged back to the environment or a third party over the course of the reporting period. It is the water that the company has permanently removed from the local water cycle by being incorporated into products, crops, etc. It means that this water is no longer available for use by the ecosystem, local community or other businesses.

Water withdrawals: Water that the company has temporarily removed from the local water cycle that is returned as discharge water. It is the sum of all water drawn into the boundaries of the organization or facility from all sources for any use.

Water discharges: Water that leaves a company's facility and can be a potential source of pollution if left untreated. It is the amount of effluents and other water leaving the boundaries of the organization or facility and released to surface water, groundwater or third parties.

44
disclosing companies
in total

Stakeholders are calling for accessible, accurate, and comprehensive information that demonstrates responsibility for reducing water-related risks and impacts. CDP's water security questionnaire provides a valuable platform to facilitate this transparency and dissemination of information. It tracks key performance indicators such as corporate governance, risk management, and value chain engagement in order to provide consistent, quantifiable, and comparable data and insights to investor shareholders and purchasing organizations. These insights are then used to make smarter, more informed investment and purchasing decisions. In 2021, 3,368 companies disclosed on water through CDP, with this data shared with more than 590 investors, representing over US\$110 trillion in assets and more than 200 purchasing companies with US\$5.5 trillion in procurement spend.

In the seventh year of the CDP Water Program in Turkey, we asked 64 companies to provide data about their efforts to manage and govern water resources on behalf of investor signatories. We selected these companies based on economic and environmental indicators (largest listed companies in high water impact industries). **44 companies responded to CDP's water program in Turkey**, up from 36 companies (a 22% increase) in 2020. Out of 44 respondents, 11 were "self-selected" (SSCs) as voluntary reporters, and 33 were included in the Turkey sample that received an official invitation. Therefore, the response rate of the official sample is 52% (up from 42% in 2020).

This chapter presents summary findings from CDP analysis of 41 responding company disclosures (including 11 SSCs) in response to the CDP Water Information Request.

▼ Current State and Accounting

Disclosing through CDP allows companies to build trust and credibility by providing information directly to investors and purchasers, using a market-leading and standardized disclosure system. This process enables companies to demonstrate their involvement in the reporting progress against a comprehensive set of water stewardship indicators. Robust water accounting data is necessary to inform business planning and forecasting as well as risk identification and response.

Measuring and monitoring water usage, discharge, and consumption are vital first steps in enabling companies to understand the risks they face and the opportunities available to improve water security and stewardship throughout their operations and supply chains. This module allows CDP data users to build a picture of the dependence of the company's direct operations and broader value chain on sufficient amounts of water of a particular quality, currently and for future growth, and where most dependence on water lies in the value chain.

Migros attaches great importance to supplier selection, monitoring their suppliers' practices within their responsible sourcing approach and offering them assistance to improve their environmental performance. Before deciding to work with supplier companies, Migros conducts a thorough review of financial, legal and ethical risks and opportunities associated with companies. Companies that become suppliers are subject to GC Ethical Conformity-based audits in accordance with audit periods and their impact on the environment. In 2020, 279 of Migros' total suppliers, 15% of their 1,878 suppliers, are audited in the scope of GC Ethical Conformity audits. The ratio of these suppliers into their total revenue is much higher and stands at 80%. Through an accredited independent external audit agency, 50% of their suppliers that make up 80% of total revenue were selected as per the 80:20 rule known as the Pareto Analysis. Additionally, all of the candidate suppliers are subject to detailed audits, while suppliers from all sectors are deemed to offer risk are consistently audited.

The importance (current and future) of water quality and water quantity to the success of business (Percentage of reporting companies)



49%
water quality & quantity is vital for the success of the business

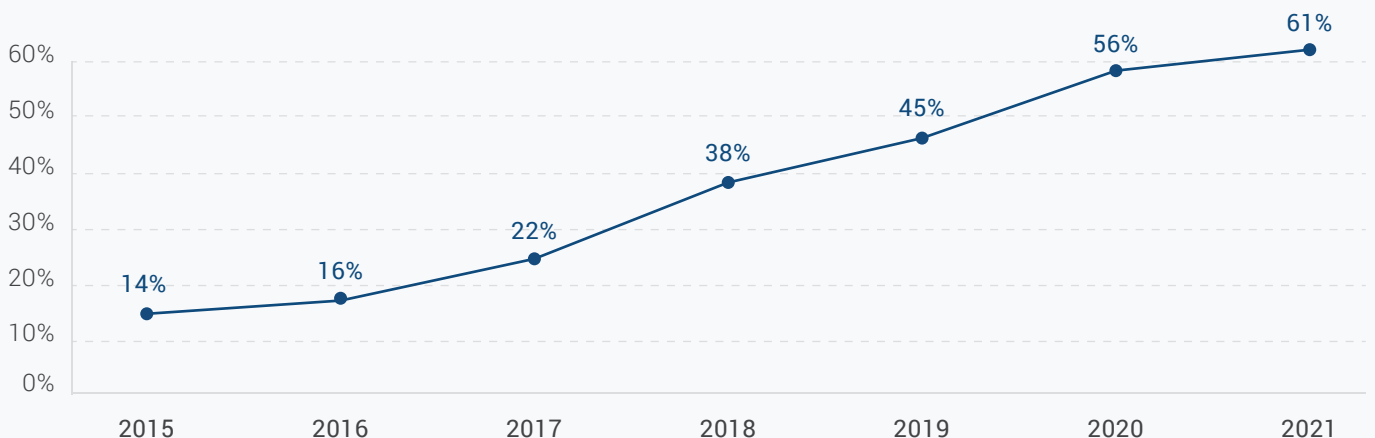
The **availability of sufficient amounts of good quality freshwater** is vital for health, livelihoods, ecosystems, and economic production. Therefore, CDP asks companies to rate the importance of water quality and water quantity to the success of their business. The companies disclosing from Turkey claim that having sufficient good quality freshwater for their own use is either important (68%) or vital (49%) for their business.

Responding to risks and seizing opportunities requires awareness, monitoring, transparency, and disclosure. A significant portion of responding companies (93%) reporting via CDP now **measure and monitor more than half of all water aspects** across all operations (sites/facilities/operations). A further 90% regularly measure and monitor all water aspects. 61% of responding companies also ask their **key suppliers to report on their water use, risks and/or management** information. 24% requested that information from more than half of their suppliers.

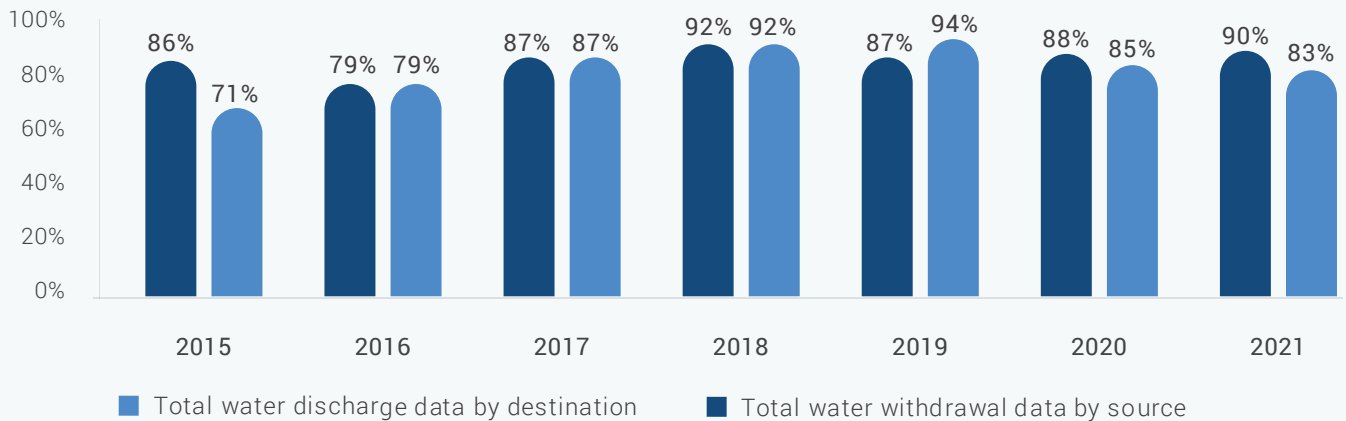
Water is vital, because it is the main ingredient of **Coca-Cola's** products. Therefore, they need considerable amount of high-quality water continuously to continue their operations. As Coca-Cola is sourcing water dependent ingredients such as sugar and fruits, so water is also vital for their ingredient suppliers. Quality and quantity of water supply are important not only for them, but also for their supply chain. Detrimental effects of water and precipitation regimes are also important. A potential water stress in the area of operations will pose a vital risk for their operations. Besides, the water available could be more polluted or saltier and its adverse effects on water quality may bring them additional costs with regards to water treatment, variations in product quality, shut-off, hygiene and health risks. The same risks mentioned above will be relevant to their value chain.

51%
water discharge is lower than the previous year

Percentage of companies requiring **suppliers to report** on their water use, risks and/or management information



Percentages of companies providing **total water withdrawal data by source and total water discharge data by destination** (2015-2021 comparison)



66%
more than half of the total withdrawals sourced from water-stressed areas

78%
water is discharged to third party destinations

76%
water withdrawal is sourced from third party sources

As for **accounting of water use**, 90% of responding companies in Turkey gave an account of their **water withdrawals** by source via CDP. The total volume of water withdrawn across all operations is 15,596 megaliters. A further 85% also provided total **water discharge** data by destination that is 15,375 megaliters in total.

Most companies try to reduce their water consumption through recycling and reusing. But the above figures prove that despite these efforts the demand for water in industrial activities is still not decreasing.

While 41% of responding companies have measured that their **water consumption** is lower than the previous year, 17% report an increase. In terms of **water withdrawals**, 49% of responding companies reported a decrease, while 22% measured a rise compared to the previous year. 51% of companies reported that total **water discharge** by destination is lower than the previous year. This year, the rate of companies with higher total water

consumption, discharge, and withdrawal compared to last year decreased. In comparison, the rate of companies with lower total water consumption, discharge, and withdrawal compared to the previous year increased.

66% of responding companies reported that more than half of total withdrawals were sourced from **water-stressed areas** which is much higher compared to the previous year (53%). Most of the water withdrawal is sourced from **third-party sources** (76%) and most of the water is discharged to **third-party destinations** (78%) which shows water crosses the company boundary, at either the corporate level or facility level.

61% of the responding companies in Turkey externally verified their water withdrawals data. Water consumption (41%) and water discharge (46%) are the following most externally verified water accounting data. A further 46% verified other water information besides the company's CDP disclosure.

Percentage of companies providing **total volumes of water withdrawn, discharged, and consumed** across all operations compared to the previous reporting year

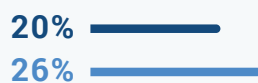
Total Consumption
Higher / Much Higher



Total Consumption
Lower / Much Lower



Total Discharge
Higher / Much Higher



Total Discharge
Lower / Much Lower



Total Withdrawal
Higher / Much Higher



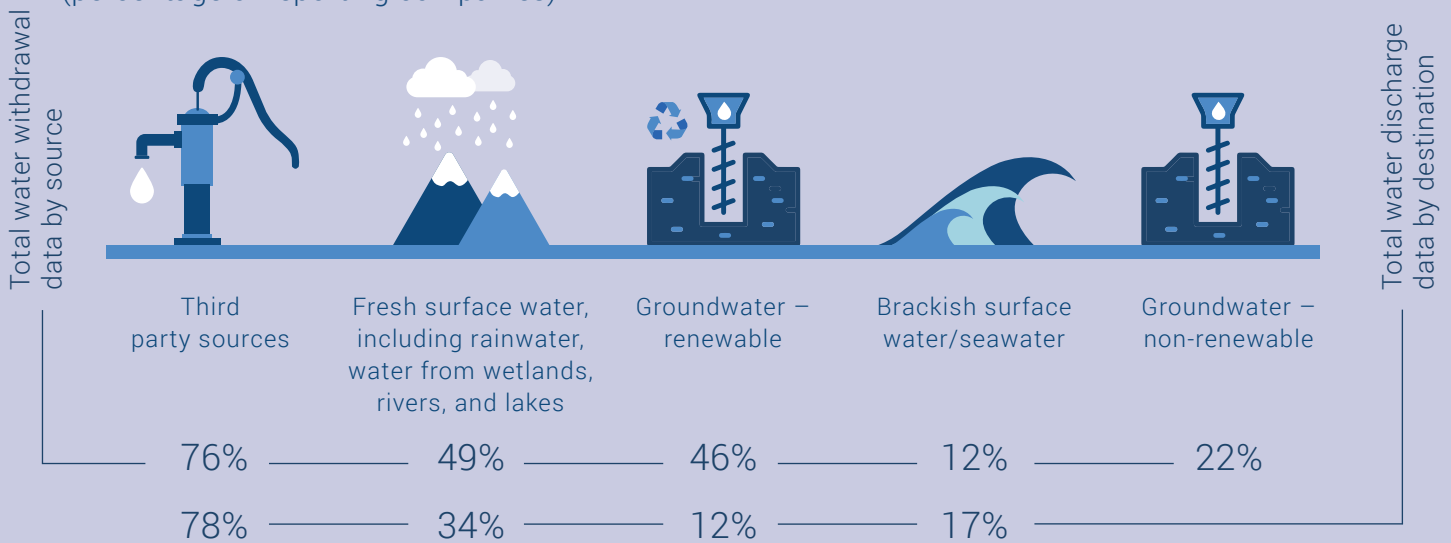
Total Withdrawal
Lower / Much Lower



■ 2021 ■ 2020

n₂₀₂₁:41 n₂₀₂₀:34

The most frequently cited water **withdrawal sources and water discharge destinations** (percentage of reporting companies)



27%
experienced detrimental
water-related impacts

▼ **Business Impact & Procedures**

There are financial risks that companies face from water issues. 27% of companies in Turkey suffered from some water-related issues (**experienced detrimental impacts**) over the reporting period – mostly related to flooding, drought, or inadequate infrastructure. Companies should act on their water security because the price of non-action is high. The total financial impact of water-related detrimental impacts experienced by companies in Turkey was US\$174 million.

66%
assessed water-related
risks for more than 6
years

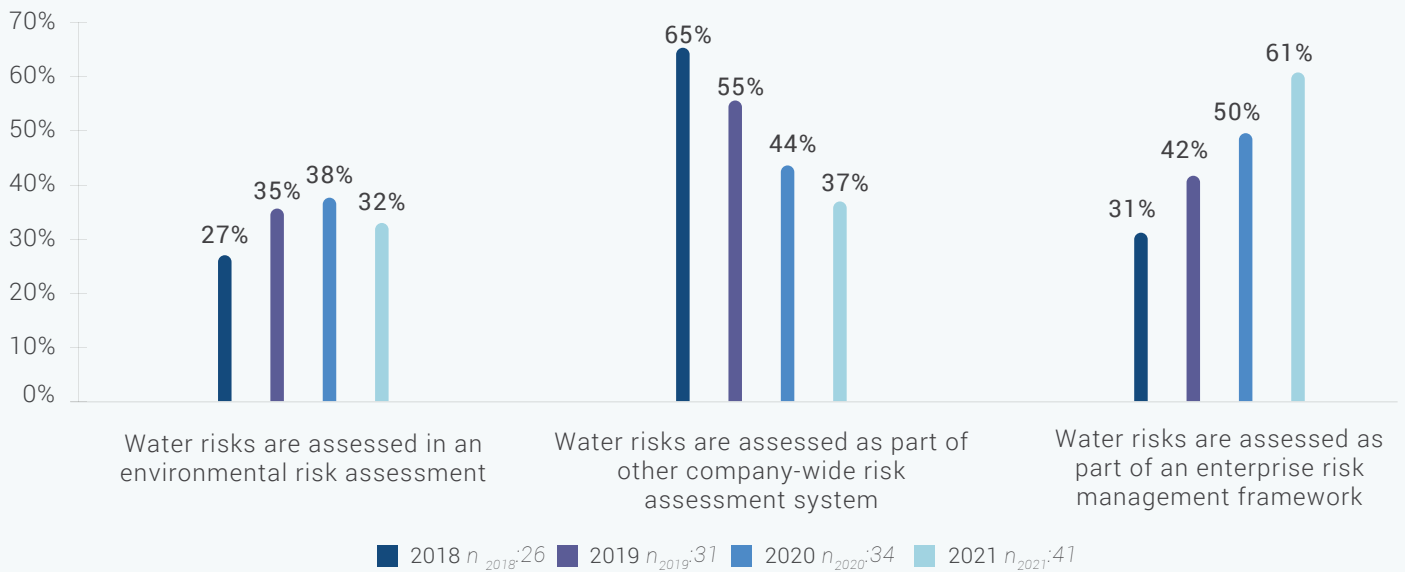
AKSA demonstrates its environmental awareness and water-related risks to current local communities through its Sustainability Report. A number of their operations are represented in local water boards and community forums to ensure that they manage any potential risks regarding water quality and availability. They recognize that the risk that low-quality discharges, high amounts of water withdrawal and water consumption can affect the livelihoods, health and business activities of the local community, as well as biodiversity in the downstream area. These risks would directly affect their brand value and result in reputational risks, including decrease of revenue. Local communities, as stakeholders, are relevant and always included in their corporate risk inventory in terms of the community's perception of AKSA's brand image and effect on revenue. Local communities can affect all three stages of their value chain, since negative community perception could cause disruption on local raw material supply, the halting of production in direct operations and local manpower resources.

A comprehensive risk assessment is essential for companies to develop a clear understanding of physical, regulatory, and reputational exposures as well as opportunities available. 98% of responding companies stated that **water risks are assessed**. However, only 44% of disclosing companies conducted risk assessments, including their direct operations and supply chains. 66% assessed water-related risks for more than six years.

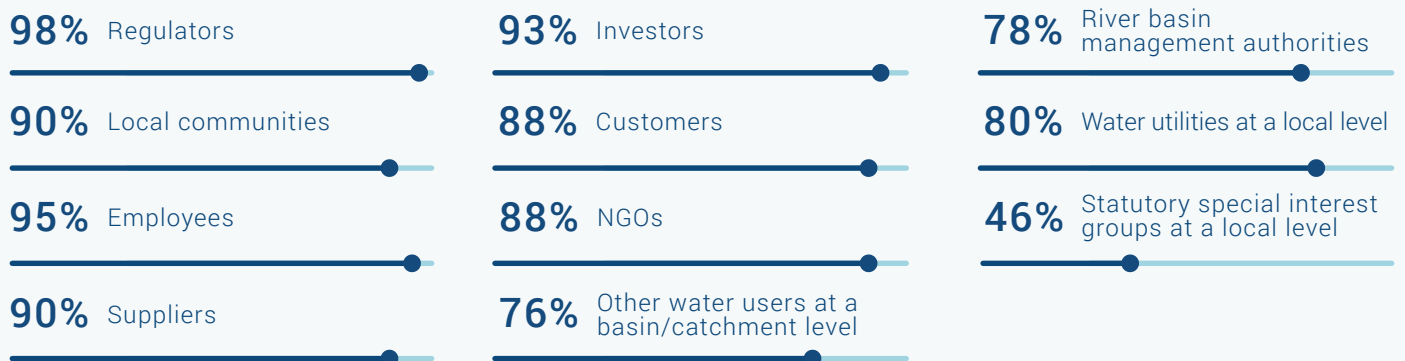
Water-related regulatory frameworks are **the most considered contextual issues** in the company's water-related risk assessments. Water is also a local issue, and each river basin faces distinct challenges as a function of the different water users operating there. **Assessment at the basin level** poses challenges for companies, given that it requires an understanding of the activities and needs of local communities and other local water users. 78% of companies in Turkey conducted a risk assessment with a consideration of river basin management authorities and a further 90% with local communities. However, regulators are **the most considered stakeholders** (98%) in the company's water-related risk assessments.

Garanti BBVA undertakes an E&S risk assessment during the due diligence phase as well as the maturity of the loan that falls under the scope of its E&S risk management framework. Since 2019, Garanti BBVA has updated the scope of application on E&S procedures and removed the investment amount restriction for project finance. During this assessment, Garanti BBVA supports its customers to better manage their water-related risks, along with all other E&S risks. As Turkey is becoming a more and more water-stressed country each year, the bank correspondingly updates to tighten its E&S policies, procedures and standards. Furthermore, it is also important to highlight that the bank favors wind and solar projects since hydroelectricity power plant projects are more vulnerable to such risks and have a more negative impact on the environment. They also have higher construction risks compared to wind and solar projects.

Risk assessment procedures to assess water-related risks (2018-2021 comparison)



Stakeholders, which are always considered in the organization's **water-related risk** assessments, are (percentage of reporting companies):



Most frequently considered contextual issues in organizations' **water-related risk** assessments (percentage of reporting companies):



54%

identified water-related risks both in direct operations and the rest of the value chain

Since **Ülker** operates in the food and beverage sector and requires water for most operations, most of their facilities have the potential to encounter risks. For example, their Karaman Facility is considered as being in a water-stressed area and 20% of their water consumption emerges from here. For risk mitigation, Ülker is monitoring water levels and has decreased water-related risks in this region by around 30-40%. There is a production unit in Karaman which is exposed to water risks. Underground water levels are becoming deeper every year due to a rainwater decrease in the region and excessive industrial and farmland water usage. To overcome this issue, Ülker has optimized their water consumption. Since 2014 they have reduced their specific water consumption by nearly 40% and their well water levels have been linear for the last four years.

Risks Assessment & Opportunities

Companies should undertake water risk assessments that account for the regional context in both direct operations and supply chains. By improving their understanding of the way in which water is managed around them, companies are better prepared to respond proactively to challenges.

Therefore, CDP asked companies to report **substantive water-related risks** and to share any **water-related opportunities** being realized that could substantively benefit their business.

In Turkey, 54% of responding companies identified **inherent water-related risks** with the potential to have a substantive financial or strategic impact on the business, both in direct operations and in the rest of the value chain. 56% of responding companies reported that more than half of company-wide facilities are **exposed to water risks**. That percentage at the facilities on river basin is 44%. The potential financial impact of identified risks on the direct operations of companies in Turkey is US\$701 billion.

In addition to impact in direct operations, companies were also asked to assess their water risk in their value chain. **Physical risks** are the most reported types of risks in the direct operations (68%) and in the value chain (49%).

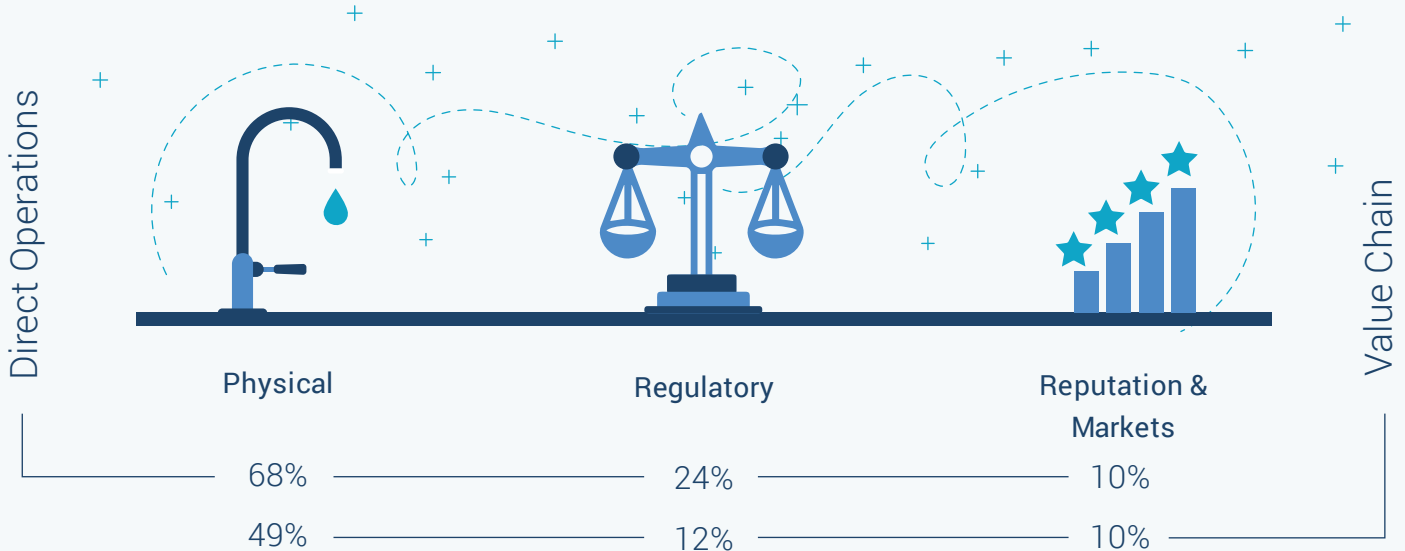
Physical risks include droughts, flooding, increased water scarcity and increased water stress. Increased operating costs are also the **most reported potential impact** (34%) of identified risks in the direct operations; in the value chain, the most reported risk drivers are drought (22%) and increased water scarcity (7%).

Eti Soda's water usage is circulated in a closed circuit in the factory, meaning water loss is reduced to the minimum and water-related expenses are minimized. This results in less water withdrawal from the Saryar Dam. Water withdrawal is monitored continuously and the cost of the consumption is calculated based on the volume of water saved. In 2019, Eti Soda saved over 1,000ml of water; in 2020 they saved around 980ml of water. The minimum financial impact is calculated with the current prices and the maximum financial impact is calculated using price projections for the future, which includes a higher price increase (200% increase) for electricity not produced and a lower price increase (70% increase) for the water they withdraw from Saryar Dam. Eti Soda implements a higher price increase for electricity not produced because future projections expect renewable energy prices to increase. With these assumptions, the minimum financial impact is calculated as 380,000tl whereas the maximum financial impact is about 900,000tl. Although the financial impact of this opportunity is slightly lower than their substantive impact threshold, as water is a very vital resource for their operations, any initiative that results in water savings is important for them.

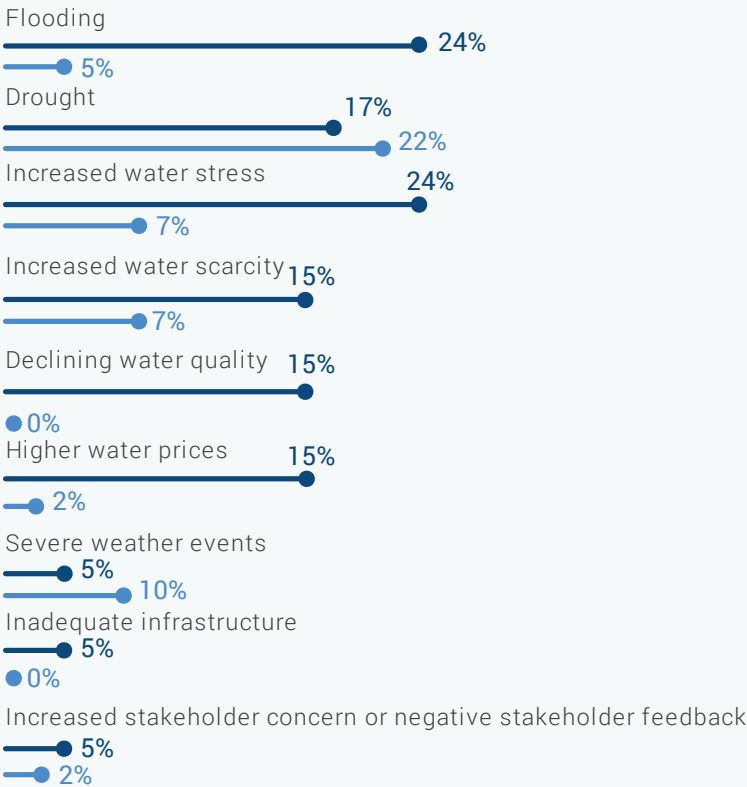
68%

identified physical risks in the direct operations

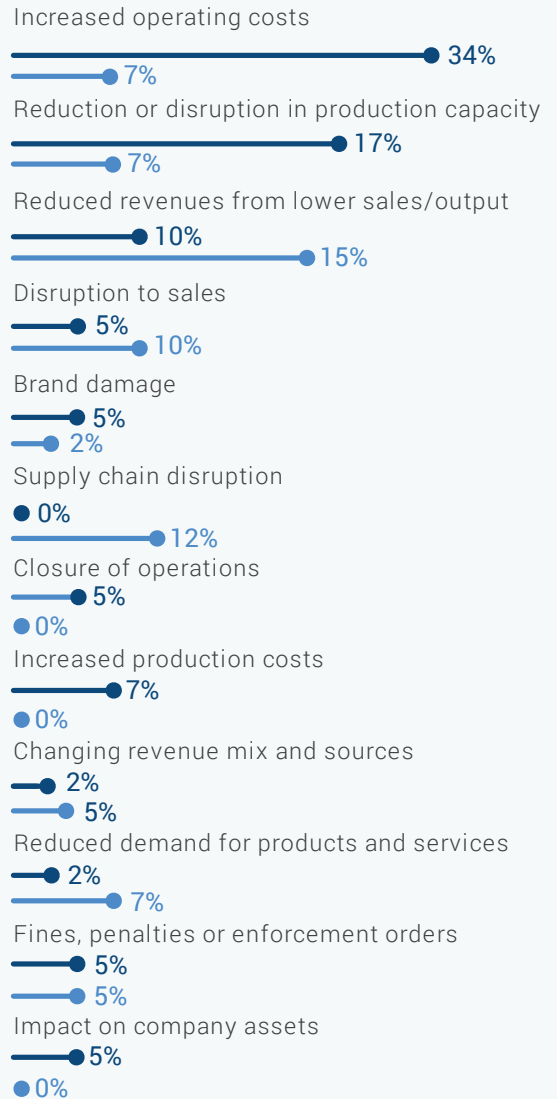
Percentage of **risk types** identified in direct operations and within the value chain



Primary **risk drivers** in direct operations and within the value chain (percentage of reporting companies)



Primary **potential impact** of identified risks in direct operations and within value chain (percentage of reporting companies)



■ Direct Operations ■ Value Chain

85% identified water-related opportunities and some/all are being realized

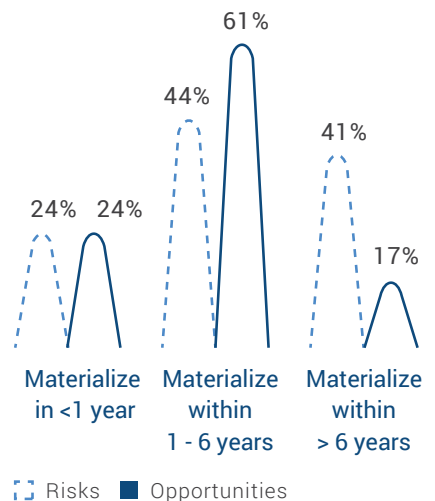
44% anticipate risks to materialize within one to six years in direct operations

Assessment of impacts requires a long-term outlook. 44% of companies anticipate that the **substantive financial or strategic impacts** of identified risks in direct operations will be realized within one to six years. A further 41% expect that impacts will be felt after a period of more than six years. The chart below represents the estimated timeframe for the realization of substantial financial and strategic impacts on businesses.

There are also positive opportunities identified from taking action on water issues. 85% of responding companies identified **water-related opportunities** with the potential to have a substantive financial or strategic impact on the business and stated that some/all are being realized.

Efficiency (63%), markets (37%), and products and services (37%) are the most reported types of opportunities currently being realized.

Timeframe of substantive financial or strategic impacts of identified risks and opportunities in **direct operations to materialize**



Primary water related **opportunities** currently being realized (percentage of reporting companies)



Kazan Soda also minimizes its water loss and water consumption via a closed-circuit in the factory, resulting in less water withdrawal from the Çamlidere Dam. Water withdrawal is monitored instantly, and the cost of consumption is calculated based on this volume. In 2019, via the water recovery/recycle within the processes Kazan Soda has saved over 1,763,191m³ freshwater withdrawal from Çamlidere Dam. Moreover, their water recovery/recycle rate increased by 9.7% between 2019 to 2020.

▼ **Governance**

The strategic decisions taken by the CEO and the board can truly transform a company's impact on water resources. By providing board members with the information and tools to plan for a transition to a water-secure world and by publicly monitoring their progress, water stewardship can become a part of companies' business strategies. Almost all (98%) companies report that they have **board-level oversight of water-related issues** within the organization. In more than half of the responding companies (59%), the CEO is responsible for water-related issues, and 73% have **incentives in place** for C-Suite executives on water-related issues.

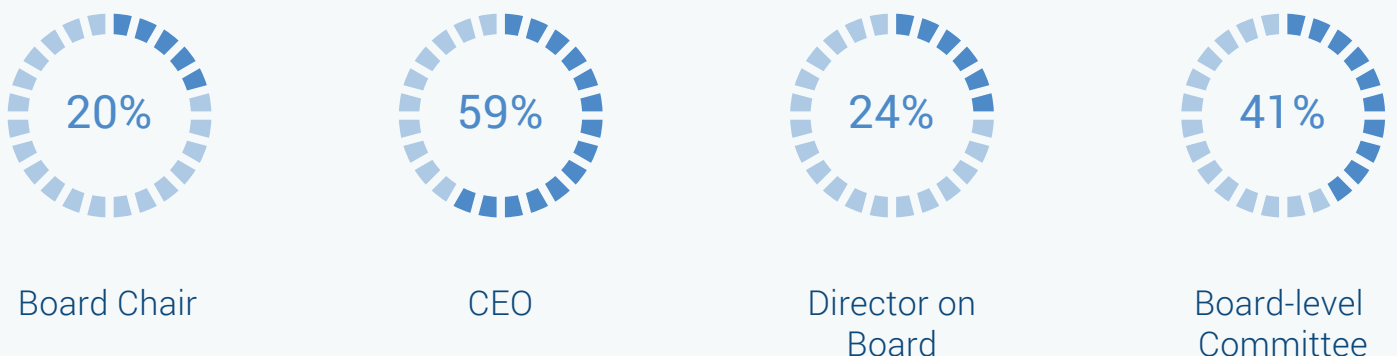
In Turkey, 83% of responding companies have a **company-wide water policy**. A further 90% engage in activities that could directly or indirectly influence public policy on water. 63% of companies include information about their response to water-related risks in their most recent mainstream financial report.

98% have board level oversight of water-related issues

59% identified CEO with responsibility for water-related issues on the board

83% have a company-wide water policy

The position of the individual on the board with responsibility for water-related issues (percentage of reporting companies)



Ford Otosan has a corporate water policy and strategy covering all operations and stakeholders. The policy states a commitment to global and local coherence in the approximation to water security. In this policy the commitments are beyond regulatory compliance. Ford Otosan has water targets and goals for its own operations, to reduce environmental impact. The efficient solutions based on best available technologies act as a pioneer in environmental and energy issues to other sectors and suppliers. In this policy, providing the most advanced level of emergency and environmental risk management was highlighted with the prioritization of environmental protection and energy efficiency. Basin level stewardship has a high importance for Ford Otosan. Reducing the effects of climate change on issues affecting future generations such as biodiversity and ecosystem protection is managed with action plans, including engagement with their suppliers and all business stakeholders on environmental performance and green economy issues such as "green procurement". It is also committed to raise awareness of responsibility in the field of environment and energy by organizing training activities for the employees, stakeholders and community, and ensuring their awareness of the policy. It is embedded in Ford Otosan's Environmental and Energy Policy and Risk Identification Table.

20%
use an internal price on water

▼ Business Strategy

Leading companies recognize that business-as-usual responses to business and water management are no longer sufficient to deal with risks and opportunities. Integrating water into financial planning, long-term objectives, and strategies for achieving these are crucial steps on this journey. This module aims to collect information on how a company is adapting its long-term business model to secure a sustainable future in terms of both its own resilience and securing water for all.

80% of responding companies in Turkey identified water-related outcomes from the organization's **climate-related scenario analysis**.

Only 20% of companies use an **internal price on water**, which is much lower than those that use an internal carbon price in Turkey (42%).

Companies are also looking into medium and long-term strategies on water issues. They have integrated the water aspects (strategy for achieving long-term objectives, long-term business objectives, and financial planning) into their business plans. Looking at the longer-term, 85% of respondents in Turkey are integrating water-related issues into the organization's **long-term strategic business plan**. A further 46% integrated those issues into a strategic business plan for more than 10 years. While 78% of companies have considered water-related issues in their **financial planning**, 78% have considered it in their long-term business objectives.

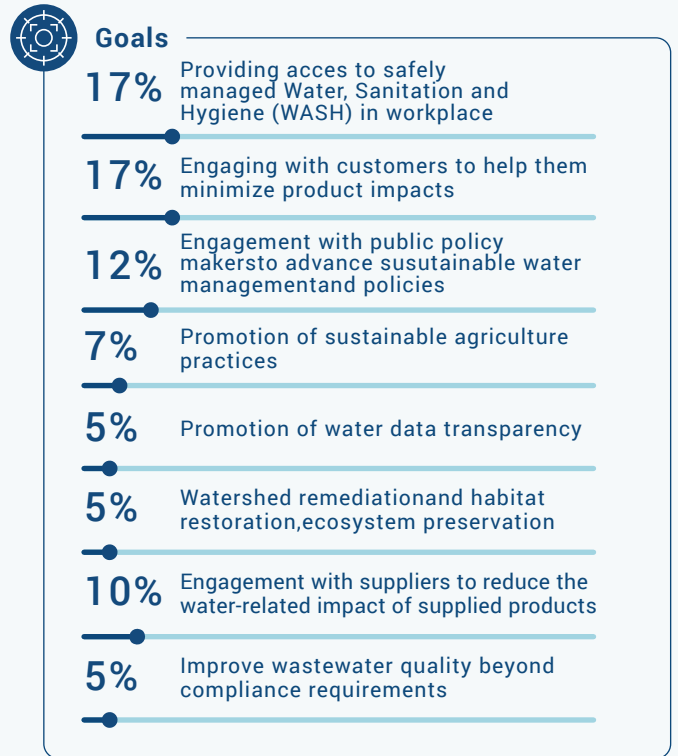
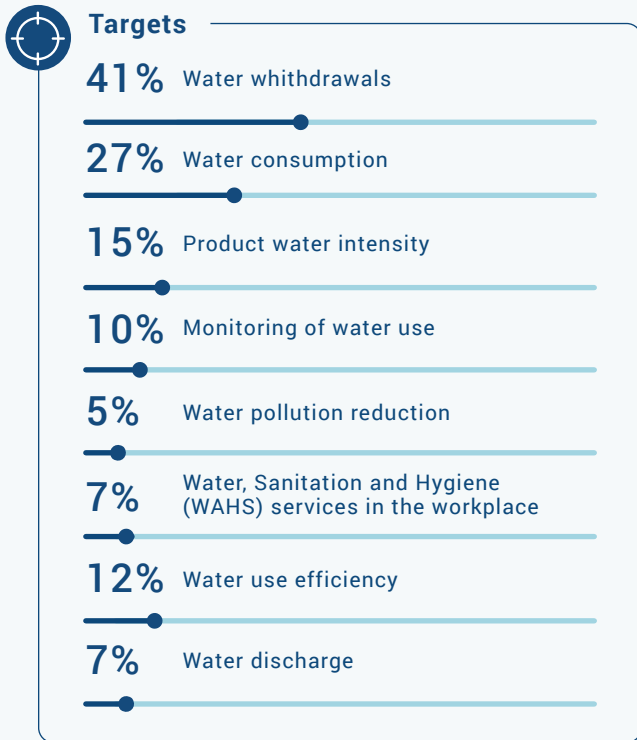
Companies must set and achieve ambitious targets to reduce impacts on water availability and quality. There is an increased commitment of companies in Turkey to managing and sustaining water security. CDP defines a **'target'** as a specific, measurable output within a clear timeline. At the same time, a **'goal'** aims to achieve a longer-term qualitative outcome or a specific change in behavior or circumstances. Targets are quantifiable objectives to manage water resources, and goals are qualitative aims leading towards improved water stewardship. Most companies (93%) have set company-wide targets and goals to better manage water risks. 56% of responding companies achieved more than half of their **water targets**.

In Turkey, 93% of responding companies are **monitored targets and goals at the corporate level**. Water withdrawals are the most common category of monitored targets (41%). The most common category of water-related goals monitored at the corporate level is engagement with customers to help them minimize product impacts (17%) and

80%
use climate-related scenario analysis

To achieve its long-term target, **Arçelik** defines its short and medium-term business goals, KPIs and action plans. In scope of Arçelik Sustainability Targets, Arçelik has yearly water reduction targets and had a short-term 2020 target to decrease water withdrawal per product in production by 52% compared to 2012. To reach water-related objectives, Arçelik performs water efficiency projects in plants. Thanks to projects realized in their plants, they reduced their average water withdrawal per product in production by 52% in 2020 compared to 2012. They collaborate with their suppliers and universities to benefit from their expertise in their projects. In 2020, they recycled and reused the wastewater from the function test system on the assembly line and the final rinse wastewater in the paint shop. In addition, they recovered and reused the effluent water of a biological wastewater treatment plant and rainwater in the Arçelik Washing Machine Plant in Istanbul, saving a total of 172,128m³ of water. At the Arçelik Cooking Appliances Plant in Bolu, they saved 91,130m³ of water through water efficiency projects, including an increase in the equipment efficiency adjusting water levels, fewer nozzles used in the enamel process, and adjustment of pump pressure. They saved a total of 327,768m³ of water in Turkey operations in total, and reduced water withdrawal by 18% in Turkey.

The categories of **targets and goals** that are monitored at the corporate level (percentage of reporting companies)



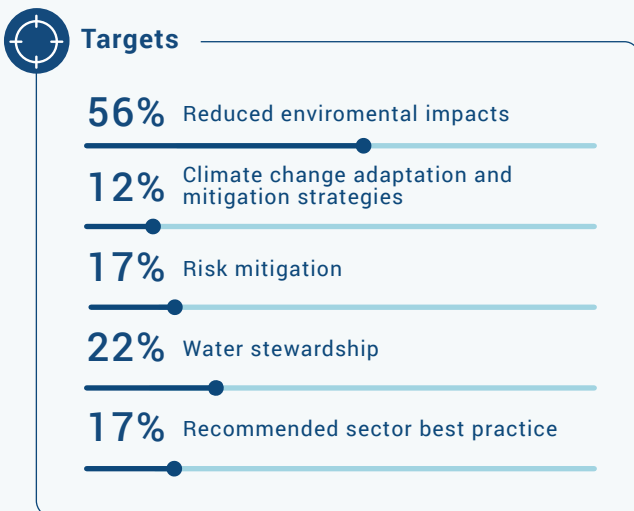
93%
company-wide targets and goals in place to manage water risks

provide access to safely managed Water, Sanitation, and Hygiene (WASH) in the workplace (17%).

99% of respondents provided a **quantitative metric** for water targets. A further 95% provided **description of water goals**. Reduced environmental impacts (56%) is the primary motivation behind targets, and the **primary motivation** behind the goals is water stewardship (29%) and reduced environmental impacts (29%).

99%
provided a quantitative metric for water-related targets

Motivations behind the water related targets and goals (percentage of reporting companies)



SCORE DISTRIBUTION

TURKEY 2021

CDP Scoring 2021: a year that raised the alarm for leadership

A record 13,000+ companies reported environmental data through CDP in 2021. 272 companies worldwide - worth US\$12 trillion in market cap - have been highlighted for their environmental leadership, based on their level of transparency and performance on climate change, forests, and water security as an A List company. More and more companies worldwide are taking action on water security and deforestation and including these concerns on their corporate agendas. Conversely, there is a 15% reduction in number of companies on the climate change A List as the bar is raised on climate leadership.

Unfortunately, in Turkey, no companies were included in the 2021 CDP climate change A List. However, three companies made it to the CDP Water A List. Eti Soda, Kordsa Teknik Tekstil, and Tekfen Holding were among these leaders.

Five companies (down from eight in 2020) achieved a score of A- for climate change, and six (from eight in 2020) for water. These companies are recognized as pioneers of business in Turkey for environmental reporting and action.

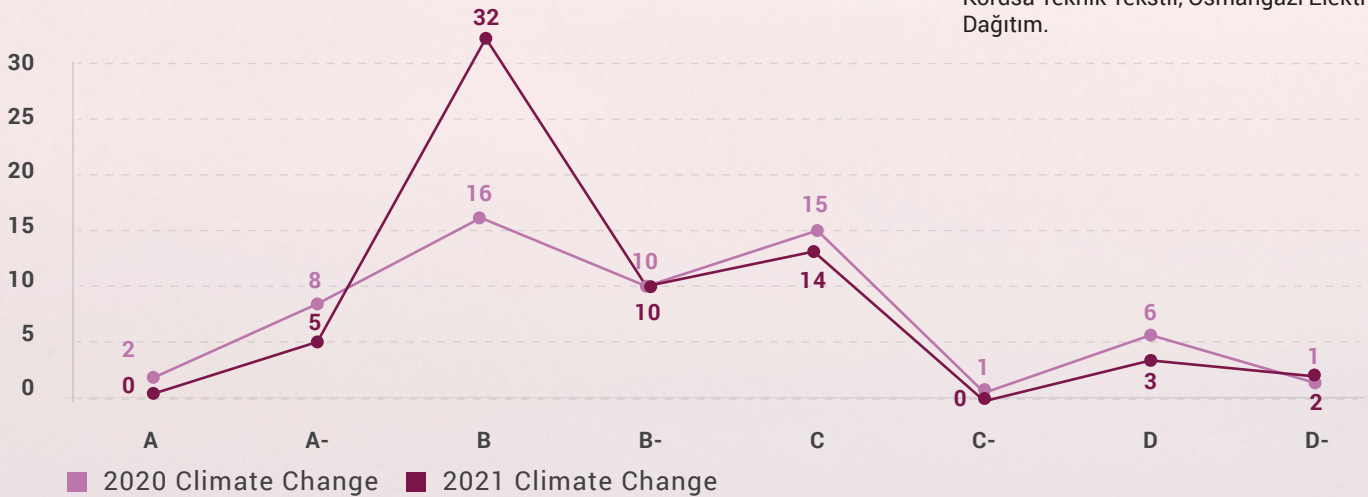
Management and leadership levels (corresponding to A & B scores) require demonstration of good or leading environmental performance and transparency. In 2021, the number of A and B band companies in Turkey was 50. That number is steadily increasing. In addition, the number of companies that received a B score in the Climate category increased by 100% from 2020.

For the first time this year, a company from Turkey disclosed its forests data through CDP. Mavi Giyim received a C score for cattle and timber commodities and became a pioneer in disclosing forest data in Turkey through the CDP platform..

CDP Supplier Engagement Rating (SER)

Companies' average upstream emissions are around 11.4 times greater than their direct operations. Therefore, companies have much greater potential to reduce global emissions by influencing their supply chains. CDP's annual Supplier Engagement Rating provides a rating for how effectively companies engage their suppliers on climate change. CDP assesses performance on supplier engagement using a company's response to selected questions on governance, targets, value chain (scope 3) emissions, and supplier engagement strategies in the CDP climate change questionnaire. By engaging their suppliers on climate change, companies play a crucial role in the transition towards a net-zero sustainable economy.

Businesses in Turkey had great progress in Supplier Engagement Rating this year and eight companies received an A score (up from three in 2020): Arçelik, Brisa Bridgestone Sabancı Lastik Sanayi ve Ticaret, Coca-Cola İçecek, Ekol Lojistik, Ekoten Tekstil Sanayi ve Ticaret, Eti Soda, Kordsa Teknik Tekstil, Osmangazi Elektrik Dağıtım.



CDP TURKEY LEADERS

TURKEY 2021

CDP GLOBAL WATER A LIST

	ACS INDUSTRY	SCORE
ETİ SODA A.Ş.	Materials	A
KORDSA TEKNİK TEKSTİL A.Ş.	Manufacturing	A
TEKFEN HOLDİNG A.Ş.	Infrastructure	A

CDP TURKEY CLIMATE CHANGE LEADERS

ARÇELİK A.Ş.	Manufacturing	A-
BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.	Manufacturing	A-
KORDSA TEKNİK TEKSTİL A.Ş.	Manufacturing	A-
TEKFEN HOLDİNG A.Ş.	Infrastructure	A-
ETİ SODA A.Ş.	Materials	A-

CDP TURKEY WATER LEADERS

AKSA AKRİLİK KİMYA SANAYİİ A.Ş.	Materials	A-
ARÇELİK A.Ş.	Manufacturing	A-
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.	Manufacturing	A-
BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.	Manufacturing	A-
COCA-COLA İÇECEK A.Ş.	Food, beverage & agriculture	A-
YAPI VE KREDİ BANKASI A.Ş.	Services	A-

CDP SUPPLIER ENGAGEMENT RATING GLOBAL LEADERS

ARÇELİK A.Ş.	Manufacturing	A
BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.	Manufacturing	A
COCA-COLA İÇECEK A.Ş.	Food, beverage & agriculture	A
EKOL LOJİSTİK A.Ş.	Transportation services	A
EKOTEN TEKSTİL SANAYİ VE TİCARET A.Ş.	Apparel	A
ETİ SODA A.Ş.	Materials	A
KORDSA TEKNİK TEKSTİL A.Ş.	Manufacturing	A
OSMANGAZİ ELEKTRİK DAĞITIM A.Ş.	Infrastructure	A

CDP'S OTHER CAMPAIGNS AND PROGRAMS

TURKEY 2021

What is TCFD?

The Task Force on Climate-Related Financial Disclosures (TCFD) was established in 2015 with the goal of developing a set of voluntary climate-related financial risk disclosures, to be adopted by companies and inform investors and other members of the public about the risks they face related to climate change. The organization was formed by the Financial Stability Board (FSB) as a means of coordinating disclosures among companies impacted by climate change. In 2017, the TCFD released climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation. The recommendations are structured around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets.

CDP disclosure and TCFD recommendations

With an amendment made in 2018, CDP questions were aligned with the TCFD Framework. CDP added 25 TCFD-aligned questions contained within the Governance, Risks & Opportunities, Strategy, Targets, and Emissions modules. Therefore, companies responding to CDP can also make a reporting that largely complies with the recommendations of TCFD and can reduce their reporting burden.

CDP and Science-Based Targets

The Science Based Targets Initiative (SBTi) is a partnership between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). The SBTi call to action is one of the We Mean Business Coalition commitments. SBTi:

- defines and promotes best practice in emissions reductions and net-zero targets in line with climate science.
- provides technical assistance and expert resources to companies who set science-based targets in line with the latest climate science.
- brings together a team of experts to provide companies with independent assessment and validation of targets.

- is the lead partner of the Business Ambition for 1.5°C campaign - an urgent call to action from a global coalition of UN agencies, business, and industry leaders, mobilizing companies to set net-zero science-based targets in line with a 1.5°C future.

1,045 companies who signed up to the SBTi represent more than USD 23 trillion in market capitalization.

Science-based target setting is already becoming part of the yearly reporting practice of companies and the data infrastructure for institutional investors through incorporation in the CDP questionnaire and scoring.

Science-Based Targets

Science-based targets provide a clearly-defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

SBTi Status of Companies in Turkey*	Company name
Companies with a science-based target below 1.5°C	BRİSA BRIDGESTONE SABANCI LASTİK SAN. VE TİC. A.Ş.
Companies with a science-based target that below 2°C	ARÇELİK A.Ş.
	KAYSERİ ULAŞIM A.Ş.
Companies committed to set a science-based target	ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.
	ALBARAKA TÜRK KATILIM BANKASI A.Ş.
	ETİ SODA A.Ş.
	KAZAN SODA ELEKTRİK ÜRETİM A.Ş.
	KORDSA TEKNİK TEKSTİL A.Ş.
	MAVİ GİYİM SANAYİ VE TİCARET A.Ş.
	OYAK ÇİMENTO FABRİKALARI A.Ş.
	SASA POLYESTER SANAYİ A.Ş.
	T.GARANTİ BANKASI A.Ş.
	T.İŞ BANKASI A.Ş.
	T.SINAI KALKINMA BANKASI A.Ş.
	TURKCELL İLETİŞİM HİZMETLERİ A.Ş.
	TÜRKİYE VAKIFLAR BANKASI T.A.O.
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.	
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.	
YAPI VE KREDİ BANKASI A.Ş.	

* (As of 24/03/2022)

CDP Commit to Action Campaign and We Mean Business Coalition

We Mean Business and the Commit to Action campaign

We Mean Business is a global non-profit coalition that brings together seven international nonprofit organizations including CDP. The mission is to ensure that the world economy is on track to avoid dangerous climate change while delivering sustainable growth and prosperity for all.

CDP Cities Program

CDP provides the global platform for cities to measure, manage and disclose their environmental data. CDP works with 1,224 cities, states and regions measuring and

disclosing environmental data each year to manage emissions, build resilience, protect themselves from climate impacts and create better places for people to live and work.

In 2019, CDP partnered with ICLEI Local Governments for Sustainability to present one unified platform for city climate reporting, streamlining the process of reporting and ensuring simplicity and standardization for reporting cities.

In 2021, 16 municipalities from Turkey disclosed their environmental data through CDP:

- Antalya Metropolitan Municipality
- Seferihisar Municipality
- Denizli Municipality
- İzmir Metropolitan Municipality
- Kadıköy Municipality
- Bursa Nilüfer Municipality
- Mezitli Municipality
- Karşıyaka Municipality
- Eskişehir Metropolitan Municipality

- Istanbul Metropolitan Municipality
- Balıkesir Metropolitan Municipality
- Gaziantep Metropolitan Municipality
- Mersin Metropolitan Municipality
- Muğla Municipality
- Adana Metropolitan Municipality
- Village of Kadiovacık

Commit to Action campaign

CDP's Commit to Action campaign works with the world's most influential companies to encourage them to sign up to climate leadership commitments supported by the We Mean Business Coalition which mobilizes businesses to set ambitious targets and equipping them to seize the opportunities of the zero-carbon transition and encourage governments to create the enabling policies that support companies to deliver bold climate action at scale.

CDP Turkey Respondents that Committed to Action*	SBT's	Carbon Pricing	Responsible Climate policy	Report Climate Change Information	EP100 - Commit to smart energy use
ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.					
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.					
ALBARAKA TURK KATILIM BANKASI A.Ş.					
ARÇELİK A.Ş.					
BRİSA BRIDGESTONE SABANCI LASTİK SAN. VE TİC. A.Ş.					
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.					
ETİ SODA A.Ş.					
KAYSERİ ULAŞIM A.Ş.					
KAZAN SODA ELEKTRİK ÜRETİM A.Ş.					
KORDSA TEKNİK TEKSTİL A.Ş.					
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.					
OYAK ÇİMENTO FABRİKALARI A.Ş.					
SASA POLYESTER SANAYİ A.Ş.					
ŞEKERBANK T.A.Ş.					
T.GARANTİ BANKASI A.Ş.					
T.İŞ BANKASI A.Ş.					
T.SINAI KALKINMA BANKASI A.Ş.					
TURKCELL İLETİŞİM HİZMETLERİ A.Ş.					
TÜRKİYE VAKIFLAR BANKASI T.A.O.					
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.					
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.					
YAPI VE KREDİ BANKASI A.Ş.					

*(As of 24/03/2022)

RESPONSE STATUS

CLIMATE CHANGE / TURKEY 2021

CDP TURKEY CLIMATE CHANGE SAMPLE (BIST-100)		2021 SCORE	2021 RESPONSE STATUS	2021 PERMISSION STATUS	2021 DISCLOSED EMISSIONS (ACROSS ALL 3 SCOPES)	HAVE EMISSION REDUCTION TARGET
COMPANY - REQUESTED	PRIMARY QUESTIONNAIRE					
AG ANADOLU GRUBU HOLDİNG A.Ş.	General	F	NS			
AKBANK T.A.Ş.	Financial services	B-	S	P	Yes	Both absolute and intensity targets
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Cement	B	S	P	Yes	Intensity target
AKİŞ GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	General	F	NS			
AKSA AKRİLİK KİMYA SANAYİİ A.Ş.	Chemicals	B	S	NP	Yes	Both absolute and intensity targets
AKSA ENERJİ ÜRETİM A.Ş.	Electric utilities	F	NS			
AKSİGORTA A.Ş.	Financial services	F	NS			
ALARKO GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	Real estate	F	NS			
ALARKO HOLDİNG A.Ş.	Construction	F	NS			
ALBARAKA TÜRK KATILIM BANKASI A.Ş.	Financial services	B-	S	P	Yes	Both absolute and intensity targets
ALCATEL LUCENT TELETİLEKOMÜNİKASYON A.Ş.	General	F	NS			
ALKİM ALKALİ KİMYA A.Ş.	Paper & forestry	F	NS			
ANADOLU EFES BİRACILIK VE MALT SANAYİİ A.Ş.	Food, beverage & tobacco	C	S	NP	Yes	Absolute target
ARÇELİK A.Ş.	General	A-	S	P	Yes	Both absolute and intensity targets
ARD GRUP BİLİŞİM TEKNOLOJİLERİ A.Ş.	General	F	NS			
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.	Capital Goods	B	S	P	Yes	Intensity target
AYGAZ A.Ş.	General	F	NS			
BAGFAŞ BANDIRMA GÜBRE FABRİKALARI A.Ş.	Chemicals	F	NS			
BİM BİRLEŞİK MAĞAZALAR A.Ş.	General	F	NS			
BİZİM TOPTAN SATIŞ MAĞAZALARI A.Ş.	General	F	NS			
BORUSAN MANNESMANN BORU SANAYİ VE TİCARET A.Ş.	Steel	B	S	NP	Yes	Absolute target
BRİSA BRIDGESTONE SABANCI LASTİK SANAYİ VE TİCARET A.Ş.	General	A-	S	P	Yes	Both absolute and intensity targets
BURSA ÇİMENTO FABRİKASI A.Ş.	Steel	F	NS			
ÇELEBİ HAVA SERVİSİ A.Ş.	General	C	S	NP	No	Intensity target
ÇEMTAŞ ÇELİK MAKİNA SANAYİ VE TİCARET A.Ş.	General	F	NS			
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Steel	B	S	P	Yes	Both absolute and intensity targets
COCA-COLA İÇECEK A.Ş.	Cement	B	S	P	Yes	Intensity target
DEVA HOLDİNG A.Ş.	General	F	NS			
DO & CO AKTIENGESELLSCHAFT (AG)	General	F	NS			
DOĞAN ŞİRKETLER GRUBU HOLDİNG A.Ş.	Oil & gas	C	S	NP	Yes	Absolute target
DOĞUŞ OTOMOTİV SERVİS VE TİCARET A.Ş.	General	F	NS			
EGE ENDÜSTRİ VE TİCARET A.Ş.	General	F	NS			
EİS ECZACIBAŞI İLAÇ, SINAI VE FİNANSAL YATIRIMLAR SANAYİ VE TİCARET A.Ş.	General	F	NS			
EMLAK KONUT GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	General	F	NS			
ENERJİSA ENERJİ A.Ş.	Electric Utilities	B	S	P	Yes	Intensity target
ENKA İNŞAAT VE SANAYİ A.Ş.	General	B	S	P	Yes	Intensity target
EREĞLİ DEMİR VE ÇELİK FABRİKALARI T.A.Ş.	Steel	F	NS			
FORD OTOMOTİV SANAYİ A.Ş.	Transport OEMS	B	S	P	Yes	Both absolute and intensity targets
GOODYEAR LASTİKLERİ T.A.Ş. (SA: Goodyear Tire & Rubber Company)	General	B	SA		Yes	Intensity target
GÖZDE GİRİŞİM SERMAYESİ YATIRIM ORTAKLIĞI A.Ş.	Financial services	F	NS			
GSD HOLDİNG A.Ş.	Financial services	F	NS			
GÜBRE FABRİKALARI T.A.Ş.	Chemicals	F	NS			
HALK GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	General	F	NS			
HEKTAŞ TİCARET T.A.Ş.	Chemicals	F	NS			
İNDEKS BİLGİSAYAR SİSTEMLERİ MÜHENDİSLİK SANAYİ VE TİCARET A.Ş.	General	F	NS			
İPEK DOĞAL ENERJİ KAYNAKLARI ARAŞTIRMA VE ÜRETİM A.Ş.	Oil & gas	F	NS			

RESPONSE STATUS

CLIMATE CHANGE / TURKEY 2021

CDP TURKEY CLIMATE CHANGE SAMPLE (BIST-100)		2021 SCORE	2021 RESPONSE STATUS	2021 PERMISSION STATUS	2021 DISCLOSED EMISSIONS (ACROSS ALL 3 SCOPES)	HAVE EMISSION REDUCTION TARGET
COMPANY - REQUESTED	PRIMARY QUESTIONNAIRE					
İŞ FİNANSAL KİRALAMA A.Ş.	Steel	F	NS			
İŞ GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	Financial services	F	NS			
İŞ YATIRIM MENKUL DEĞERLER A.Ş.	Real estate	F	NS			
İSKENDERUN DEMİR VE ÇELİK A.Ş.	Financial services	F	NS			
KARDEMİR KARABÜK DEMİR ÇELİK SANAYİ VE TİCARET A.Ş.	Steel	F	NS			
KAREL ELEKTRONİK SANAYİ VE TİCARET A.Ş.	General	F	NS			
KARTONSAN KARTON SANAYİ VE TİCARET A.Ş.	Paper & forestry	F	NS			
KEREVİTAŞ GIDA SANAYİ VE TİCARET A.Ş.	Food, beverage & tobacco	F	NS			
KOÇ HOLDİNG A.Ş.	Oil & gas	F	NS			
KORDSA TEKNİK TEKSTİL A.Ş.	General	A-	S	P	Yes	Absolute target
KOZA ALTIN İŞLETMELERİ A.Ş.	Metals & mining	F	NS			
KOZA ANADOLU METAL MADENCİLİK İŞLETMELERİ A.Ş.	Metals & mining	F	NS			
LOGO YAZILIM SANAYİ VE TİCARET A.Ş.	General	F	NS			
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.	General	B	S	P	Yes	No target
MİGROS TİCARET A.Ş.	General	B	S	P	Yes	Intensity target
MLP SAĞLIK HİZMETLERİ A.Ş.	General	F	NS			
NET HOLDİNG A.Ş.	Real estate	F	NS			
NETAŞ TELEKOMÜNİKASYON A.Ş.	General	C	S	NP	Yes	No target
ODAŞ ELEKTRİK ÜRETİM SANAYİ TİCARET A.Ş.	Electric utilities	F	NS			
OTOKAR OTOMOTİV VE SAVUNMA SANAYİ A.Ş.	Transport OEMS	F	NS			
OYAK ÇİMENTO FABRİKALARI A.Ş.	Cement	F	NS			
ÖZAK GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	Real estate	F	NS			
PEGASUS HAVA TAŞIMACILIĞI A.Ş.	Transport services	B	S	P	Yes	Intensity target
PETKİM PETROKİMYA HOLDİNG A.Ş.	Chemicals	F	NS			
PINAR ENTEGRE ET VE UN SANAYİİ A.Ş.	Food, beverage & tobacco	B-	S	NP	Yes	Intensity target
PINAR SÜT MAMULLERİ SANAYİİ A.Ş.	Food, beverage & tobacco	B-	S	NP	Yes	Intensity target
SABANCI HOLDİNG A.Ş.	Financial services	B	S	P	Yes	Both absolute and intensity targets
SASA POLYESTER SANAYİ A.Ş.	Chemicals	F	NS			
ŞEKERBANK T.A.Ş.	Financial services	B	S	P	Yes	Intensity target
SELÇUK ECZA DEPOSU TİCARET VE SANAYİ A.Ş.	General	F	NS			
ŞOK MARKETLER TİCARET A.Ş.	General	F	NS			
T.GARANTİ BANKASI A.Ş.	Financial services	B	S	P	Yes	Both absolute and intensity targets
T.HALK BANKASI A.Ş.	Financial services	B	S	P	Yes	Both absolute and intensity targets
T.İŞ BANKASI A.Ş.	Financial services	B	S	P	Yes	Absolute target
T.SINAI KALKINMA BANKASI A.Ş.	General	B	S	P	Yes	Absolute target
T.ŞİŞE VE CAM FABRİKALARI A.Ş.	Food, beverage & tobacco	C	S	P	No	Intensity target
TAT GIDA SANAYİ A.Ş.	General	F	NS			
TAV HAVALİMANLARI HOLDİNG A.Ş.	Construction	F	NS			
TEKFEN HOLDİNG A.Ş.	Transport OEMS	A-	S	P	Yes	Absolute target
TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.	Real estate	C	S	P	Yes	Both absolute and intensity targets
TORUNLAR GAYRİMENKUL YATIRIM ORTAKLIĞI A.Ş.	General	F	NS			
TÜMOSAN MOTOR VE TRAKTÖR SANAYİ A.Ş.	Financial services	F	NS			
TÜPRAŞ-TÜRKİYE PETROL RAFİNERİLERİ A.Ş.	General	F	NS			
TÜRK HAVA YOLLARI A.O.	Oil & gas	B-	S	P	Yes	Both absolute and intensity targets
TÜRK TELEKOMÜNİKASYON A.Ş.	Transport services	C	S	NP	Yes	No target
TÜRK TRAKTÖR VE ZİRAAT MAKİNELERİ A.Ş.	General	F	NS			

RESPONSE STATUS

CLIMATE CHANGE / TURKEY 2021

CDP TURKEY CLIMATE CHANGE SAMPLE (BIST-100)		2021 SCORE	2021 RESPONSE STATUS	2021 PERMISSION STATUS	2021 DISCLOSED EMISSIONS (ACROSS ALL 3 SCOPES)	HAVE EMISSION REDUCTION TARGET
COMPANY - REQUESTED	PRIMARY QUESTIONNAIRE					
TURKCELL İLETİŞİM HİZMETLERİ A.Ş.	Capital goods	B	S	P	Yes	Absolute target
TÜRKİYE SİGORTA A.Ş.	Financial services	F	NS			
TÜRKİYE VAKIFLAR BANKASI T.A.O.	Financial services	B	S	P	Yes	Both absolute and intensity targets
ÜLKER BİSKÜVİ SANAYİ A.Ş.	Food, beverage & tobacco	C	S	NP	Yes	Both absolute and intensity targets
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.	General	C	S	P	Yes	Absolute target
YAPI VE KREDİ BANKASI A.Ş.	Financial services	B	S	P	Yes	Both absolute and intensity targets
YATAŞ YATAK VE YORGAN SANAYİ VE TİCARET A.Ş.	General	F	NS			
ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.	Electric utilities	B	S	P	Yes	Both absolute and intensity targets
OTHER RESPONDING COMPANIES						
ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.	General	B	S	NP	Yes	Absolute target
AKENERJİ ELEKTRİK ÜRETİM A.Ş.	Electric utilities	B-	S	P	Yes	Intensity target
ANAGOLD MADENCİLİK SANAYİ VE TİCARET A.Ş. (SA: SSR Mining, Inc.)	Metals & mining	N/A	S	NP	No	No target
AYDEM YENİLENEBİLİR ENERJİ A.Ş.	Electric utilities	B	S	P	Yes	Intensity target
CARREFOURSA CARREFOUR SABANCI TİCARET MERKEZİ A.Ş.	General	C	S	P	Yes	Both absolute and intensity targets
DURAN DOĞAN BASIM VE AMBALAJ A.Ş.	Paper & forestry	B-	S	NP	Yes	Both absolute and intensity targets
EKOL LOJİSTİK A.Ş.	Transport services	B	S	P	Yes	Both absolute and intensity targets
EKOTEN SANAYİ VE TEKSTİL A.Ş.	General	B	S	P	Yes	Absolute target
ENERJİSA ÜRETİM SANTRALLERİ A.Ş.	Electric utilities	B	S	P	Yes	Both absolute and intensity targets
ETİ SODA A.Ş.	Metals & mining	A-	S	P	Yes	Both absolute and intensity targets
GAZDAŞ GAZİANTEP DOĞAL GAZ DAĞITIM A.Ş.	General	B-	S	P	Yes	Absolute target
GENEL ENERGY PLC	Oil & gas	C	S	P	Yes	Absolute target
GENTAŞ GENEL METAL SANAYİ VE TİCARET A.Ş.	Paper & forestry	D	S	NP	No	No target
ICBC TURKEY BANK A.Ş. (SA: Industrial And Commercial Bank Of China Ltd.)	Financial services	D-	SA		No	
İHLAS EV ALETLERİ İMALAT SANAYİ VE TİCARET A.Ş.	General	D	S	P	No	No target
KARSAN OTOMOTİV SANAYİ VE TİCARET A.Ş.	Transport OEMS	B-	S	P	Yes	Absolute target
KAYSERİ ULAŞIM A.Ş.	General	B	S	P	Yes	Intensity target
KAZAN SODA ELEKTRİK ÜRETİM A.Ş.	Metals & mining	B	S	P	Yes	Both absolute and intensity targets
LİMAK ÇİMENTO SANAYİ VE TİCARET A.Ş.	Cement	C	S	P	No	Intensity target
OSMANGAZİ ELEKTRİK DAĞITIM A.Ş.	Electric utilities	B	S	P	Yes	Both absolute and intensity targets
PERLA FRUIT GIDA SANAYİ VE TİCARET A.Ş.	Food, beverage & tobacco	D-	S	NP	Yes	No target
POLİSAN HOLDİNG A.Ş.	Chemicals	B-	S	NP	Yes	Both absolute and intensity targets
QNB FİNANSBANK A.Ş.	Financial services	C	S	P	Yes	Intensity target
TÜRKİYE KALKINMA VE YATIRIM BANKASI A.Ş.	Financial services	B	S	P	Yes	Both absolute and intensity targets
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.	General	C	S	P	Yes	Absolute target
YÜNSA YÜNLÜ SANAYİ VE TİCARET A.Ş.	General	D	S	P	Yes	Intensity target

Key to Response Status Tables

(S) Submitted **(NS)** Not submitted (No response or Declined to Participate) **(SA)** See Another (Company is either a subsidiary or the parent company is already responding to CDP) **(P)** Public **(NP)** Non-public **(N/A)** Not scored because company responded the short version of questionnaire **(F)** Failure to provide sufficient information to CDP to be evaluated for this purpose.

RESPONSE STATUS

WATER SECURITY / TURKEY 2021

CDP TURKEY WATER SAMPLE (BIST-100)		2021 SCORE	2021 RESPONSE STATUS	2021 PERMISSION STATUS	DISCLOSED WATER WITHDRAWAL, DISCHARGE AND CONSUMPTION DATA	WATER CONSUMPTION STATUS COMPARED TO PREVIOUS YEAR
COMPANY - REQUESTED	PRIMARY QUESTIONNAIRE					
AFYON ÇİMENTO SANAYİ T.A.Ş. (SA: Çimsa Çimento Sanayi ve Ticaret A.Ş.)	Cement	B	SA		Yes	Much higher
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Cement	B	S	P	Yes	Higher
AKENERJİ ELEKTRİK ÜRETİM A.Ş.	Electric utilities	B-	S	P	Yes	Lower
AKSA AKRİLİK KİMYA SANAYİİ A.Ş.	Chemicals	A-	S	NP	Yes	About the same
AKSA ENERJİ ÜRETİM A.Ş.	Electric utilities	F	NS			
ANADOLU EFES BİRACILIK VE MALT SANAYİİ A.Ş.	Food, beverage & tobacco	F	NS			
ANAGOLD MADENCİLİK SANAYİ VE TİCARET A.Ş. (SA: SSR Mining, Inc.)	Metals & mining	N/A	SA			
ARÇELİK A.Ş.	General	A-	S	P	Yes	Much lower
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.	Capital goods	A-	S	P	Yes	
AYGAZ A.Ş.	General	F	NS			
BAGFAŞ BANDIRMA GÜBRE FABRİKALARI A.Ş.	Chemicals	F	NS			
BİM BİRLEŞİK MAĞAZALAR A.Ş.	General	F	NS			
BORUSAN MANNESMANN BORU SANAYİ VE TİCARET A.Ş.	Steel	C	S	P	Yes	
BRİSA BRIDGESTONE SABANCI LASTİK SAN. VE TİC. A.Ş.	General	A-	S	P	Yes	Much lower
CARREFOURSA CARREFOUR SABANCI TİCARET MERKEZİ A.Ş.	General	C	S	P	Yes	About the same
COCA-COLA İÇECEK A.Ş.	Food, beverage & tobacco	A-	S	P	Yes	Lower
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Cement	B	S	P	Yes	Much higher
DEVA HOLDİNG A.Ş.	General	F	NS			
DOĞAN ŞİRKETLER GRUBU HOLDİNG A.Ş.	Oil & gas	F	NS			
EİS ECZACIBAŞI İLAÇ, SINAI VE FİNANSAL YATIRIMLAR SANAYİ VE TİCARET A.Ş.	General	F	NS			
EKOTEN TEKSTİL SANAYİ VE TİCARET A.Ş.	General	F	NS			
ENERJİSA ENERJİ A.Ş.	Electric utilities	B	S	NP	Yes	About the same
ENKA İNŞAAT VE SANAYİ A.Ş.	General	B	S	P	Yes	Much lower
EREĞLİ DEMİR VE ÇELİK FABRİKALARI T.A.Ş.	Steel	F	NS			
ETİ SODA A.Ş.	Metals & mining	A	S	P	Yes	About the same
FORD OTOMOTİV SANAYİ A.Ş.	Transport OEMS	B	S	P	Yes	Lower
GENEL ENERGY PLC	Oil & gas	D	S	NP	Yes	
GOODYEAR LASTİKLERİ T.A.Ş. (SA: Goodyear Tire & Rubber Company)	General	B	SA		Yes	Much lower
GÜBRE FABRİKALARI T.A.Ş.	Chemicals	F	NS			
HEKTAŞ TİCARET T.A.Ş.	Chemicals	F	NS			
İHLAS GAYRİMENKUL PROJE GELİŞTİRME VE TİCARET A.Ş.	General	F	NS			
İPEK DOĞAL ENERJİ KAYNAKLARI ARAŞTIRMA VE ÜRETİM A.Ş.	Oil & gas	F	NS			
İSKENDERUN DEMİR VE ÇELİK A.Ş.	Steel	F	NS			
KARDEMİR KARABÜK DEMİR ÇELİK SANAYİ VE TİCARET A.Ş.	Steel	F	NS			
KOÇ HOLDİNG A.Ş.	Oil & gas	F	NS			
KORDSA TEKNİK TEKSTİL A.Ş.	General	A	S	P	Yes	Much lower
KOZA ALTIN İŞLETMELERİ A.Ş.	Metals & mining	F	NS			
KOZA ANADOLU METAL MADENCİLİK İŞLETMELERİ A.Ş.	Metals & mining	F	NS			
MAVİ GİYİM SANAYİ VE TİCARET A.Ş.	General	C	S	P	No	
MİGROS TİCARET A.Ş.	General	B	S	P	Yes	About the same
NET HOLDİNG A.Ş.	Real estate	F	NS			
OTOKAR OTOMOTİV VE SAVUNMA SANAYİ A.Ş.	Transport OEMS	F	NS			
PETKİM PETROKİMYA HOLDİNG A.Ş.	Chemicals	F	NS			
PINAR ENTEGRE ET VE UN SANAYİ A.Ş.	Food, beverage & tobacco	B	S	NP	Yes	About the same
PINAR SÜT MAMULLERİ SANAYİİ A.Ş.	Food, beverage & tobacco	B	S	NP	Yes	Lower
POLİSAN HOLDİNG A.Ş.	Chemicals	B-	S	NP	Yes	Lower

RESPONSE STATUS

WATER SECURITY / TURKEY 2021

CDP TURKEY WATER SAMPLE (BIST-100)		2021 SCORE	2021 RESPONSE STATUS	2021 PERMISSION STATUS	DISCLOSED WATER WITHDRAWAL, DISCHARGE AND CONSUMPTION DATA	WATER CONSUMPTION STATUS COMPARED TO PREVIOUS YEAR
COMPANY - REQUESTED	PRIMARY QUESTIONNAIRE					
SABANCI HOLDİNG A.Ş.	Financial services	B	S	P	Yes	About the same
SASA POLYESTER SANAYİ A.Ş.	Chemicals	F	NS			
SODA SANAYİ A.Ş.	Chemicals	F	NS			
ŞOK MARKETLER A.Ş.	General	F	NS			
T.GARANTİ BANKASI A.Ş.	Financial services	B	S	P	Yes	Much lower
T.ŞİŞE VE CAM FABRİKALARI A.Ş.	General	F	NS			
TEKFEN HOLDİNG A.Ş.	Construction	A	S	P	Yes	Much higher
TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.	Transport OEMS	B-	S	P	Yes	Lower
TÜMOSAN MOTOR VE TRAKTÖR SANAYİ A.Ş.	General	F	NS			
TÜPRAŞ-TÜRKİYE PETROL RAFİNERİLERİ A.Ş.	Oil & gas	F	NS			
TÜRK TRAKTÖR VE ZİRAAT MAKİNELERİ A.Ş.	Capital goods	F	NS			
TÜRK TUBORG BİRA VE MALT SANAYİ A.Ş.	Food, beverage & tobacco	F	NS			
ÜLKER BİSKÜVİ SANAYİ A.Ş.	Food, beverage & tobacco	B-	S	NP	Yes	Lower
VESTEL BEYZA EŞYA SANAYİ VE TİCARET A.Ş.	General	C	S	P	Yes	About the same
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.	General	C	S	P	Yes	Higher
YÜNİSA YÜNLÜ SANAYİ VE TİCARET A.Ş.	General	D	S	P	Yes	Lower
ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.	Electric utilities	B	S	P	Yes	Much lower
OTHER RESPONDING COMPANIES						
ABDİ İBRAHİM İLAÇ SANAYİ VE TİCARET A.Ş.	General	C	S	NP	Yes	Higher
ALBARAKA TÜRK KATILIM BANKASI A.Ş.	Financial services	B-	S	P	Yes	Much lower
AYDEM YENİLENEBİLİR ENERJİ A.Ş.	Electric utilities	B	S	P	Yes	Higher
DURAN DOĞAN BASIM VE AMBALAJ A.Ş.	Paper & forestry	B-	S	NP	No	
İHLAS EV ALETLERİ İMALAT SANAYİ VE TİCARET A.Ş.	General	C-	S	P	No	
KAZAN SODA ELEKTRİK ÜRETİM A.Ş.	Financial services	B	S	P	Yes	Higher
PERLA FRUIT GIDA SANAYİ VE TİCARET A.Ş.	General	D	S	NP	Yes	
ŞEKERBANK T.A.Ş.	Food, beverage & tobacco	B-	S	P	Yes	Much lower
T.İŞ BANKASI A.Ş.	Financial services	C	S	NP	Yes	About the same
TÜRKİYE HALK BANKASI A.Ş.	Financial services	B	S	P	Yes	About the same
YAPI VE KREDİ BANKASI A.Ş.	Financial services	A-	S	P	Yes	Much lower

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