Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Established in 1956, Tekfen Group operates in five main areas: Engineering &Contracting, Chemical Industry (formerly reported as Agri-Industry), Agricultural Production, Services, and Investments. Tekfen Holding is the umbrella company for all of the firms and subsidiaries in the Tekfen Group. Its shares are traded in İstanbul Stock Exchange (Borsa İstanbul) and are quoted in BIST 30 Index. The Tekfen Group's founding partners have served as the originators, benefactors, and directors of many environmental, educational, and social NGOs. Those roles kept people, social welfare, and environmental wellbeing at the focal point of the Tekfen Group's business culture and charitable activities since the very outset.

Tekfen Group has 38 companies and 13 subsidiaries. In 2020, the Group had USD 1.598 billion in revenues and assets of USD 1.896 billion. With 18.444 skilled employees and 65 years of experience, it is exemplary within the business world in terms of quality standards and ways of doing business.
Engineering and Contracting Group, with extensive experience especially in oil, gas, and petrochemical facilities, provides turnkey-delivery EPC (Engineering, Procurement & Construction) projects and Design & Build solutions in such areas as pipelines, oil and gas terminals, tank farms, oil refineries, pumping and compressor stations, power plants, industrial facilities, highway and rail system projects, sports complexes, and infrastructure and superstructure projects. Engineering and Contracting Group has generated 60.6% of total revenue In the reporting year, 16.719 employees worked in the Group.

As the flagship company of the Engineering& Contracting Group, Tekfen Construction is a solution partner preferred by leading employers around the world. Tekfen Construction is an internationally recognized leader of the Turkish contracting sector, operating in many countries. To date, it has completed nearly 400 projects, demonstrating its accumulated expertise. As of the end of 2020, Tekfen Construction's active projects portfolio had a contract value of USD 1.353 billion. In Engineering News-Record's 2020 list of the World's 250 biggest international contractors based on their 2019 operations, Tekfen Construction ranked 65th (2019 list: 69th).

Tekfen Engineering provides engineering design, procurement and project management services for group and non-group projects. Tekfen Engineering's human resources and their knowledge and experience as well as its use of innovative technology make it one of the leading firms in its sector in Turkey.

Tekfen Manufacturing provides engineering, manufacturing, and installation services related especially to the storage and process equipment needed in the oil, petrochemical, and chemical industries and by industrial facilities such as gas plants, iron & steel mills, and power stations.

Chemical Industry Group operates in classic, organic & organomineral fertilizer production and distribution. Toros Agri has been at the service of Turkish agriculture for the last 40 years. In the Istanbul Chamber of Industry's 2020 list of the five hundred business concerns in Turkey, Toros Agri ranked in 57th place. In fertilizers, Toros Agri controls a 38% share of Turkey's total installed production capacity and in terms of overall output and market share, it is Turkey's biggest fertilizer producer. It has 1.228 dealers and authorized sales points throughout Turkey, enabling it to distribute its products to every corner of the country. Toros Agri, who introduced its first organo-mineral fertilizers to the market in 2017, considers its investments in the organic and organo-mineral segment not only from a commercial perspective but also as a contribution to the sustainability of the country's agriculture. Toros Agri carries out its production activities in this field through Gonen and Meram Renewable Energy. Chemical Industry Group has generated 33.1% of total revenue. In the reporting year, 903 employees worked in the Group.

Agricultural Production Group operates in the production of agricultural inputs such as seeds, seedlings, and saplings and its fruit grower operations, and they are carried out through Tekfen Agri, the group's agricultural research, production, and marketing company. Tekfen Agri's Agripark complex is one of only a very few high-tech agricultural R&D centres in Turkey. Exploiting Turkey's rich biodiversity, the centre engages in the production of disease-free seeds and seedlings using the plant tissue-culture method. Agricultural Production Group has generated 1.7% of total revenue. In the reporting year, 328 employees worked in the Group.

Services Group operates in Terminal services, Free zone operations, insurance, and facility management. Investment Group incorporates Tekfen Ventures' innovative entrepreneurship investments and holding activities. Services and Investment Groups have generated 4.5% of total turnover. In the reporting year, 494 employees worked in these two Groups.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2020	December 31, 2020	Yes	1 year

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Azerbaijan
Iraq
Kazakhstan

Qatar
Russian Federation
Saudi Arabia
Turkey

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Bulk inorganic chemicals

Fertilizers
Nitric acid

Other chemicals

C-CN0.7/C-RE0.7

(C-CN0.7/C-RE0.7) Which real estate and/or construction activities does your organization engage in?

Other real estate or construction activities, please specify

We engage in oil, gas and petrochemical facilities in such areas as pipelines, oil and gas terminals, tank farms, oil refineries, power plants, industrial facilities, highway, sports complexes, and infrastructure and superstructure projects.

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	Accountability on climate-related issues starts at the top, with the Holding Board of Directors (BoD). All of the final decisions related to climate change issues are approved by the BoD, which is led by the Chairman of the Board. Some of these responsibilities include approval of targets, budgets for emission reduction initiatives, management plans of identified risks and opportunities, internal carbon pricing mechanism, etc. Board Members are directly informed on climate issues in Tekfen Holding Board Meetings on a special agenda. One of Tekfen's values stated by the Chairman of the Board is "the protection of nature and the environment". The Chairman of the Board follows climate-related issues closely. Therefore, we can say that our Chairman of the Board is the highest responsible person for climate-related issues. An example of a climate-related decision, in 2020 our Chairman of the Board decided to prepare Tekfen's net-zero roadmap and then to set a net-zero target date. With the approval of our Board Chair, In 2020 we have also signed a 5-year agreement with The Scientific and Technological Research Council of Turkey (TUBİTAK), to develop projects on Sustainability related issues including sustainable environment issues like waste management, water treatment technologies, and alternative energy technologies like biomass-based technologies and renewable energy. This agreement also includes the development of projects related to construction materials and mobility which will help reduce our Scope 3 GHG emissions in the long term.
Chief Executive Officer (CEO)	Tekfen Holding's CEO has the ultimate responsibility to monitor and approve the annual CDP Climate Change disclosure content. The CEO follows the reporting outcomes and reviews the improvement points identified for the short-medium and long term. Therefore, the CEO has an executive responsibility while managing climate-related issues in Tekfen Holding. CEO also has the executive power for important issues such as defining climate

	change strategy, management of the risks/opportunities, and finalization of targets before they are presented to the Board of Directors. In 2020 our CEO has approved our internal "Climate Change and Energy Efficiency Directive" which applies to all of our group companies. Our CEO has also approved our 2025 and 2037 GHG emission reduction targets in 2020. Another decision led by our CEO is on performing detailed energy audit in our permanent facilities and the use of renewable energy in our facilities, which we have already started in our office buildings.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Accountability on climate-related issues starts at the top, with the Holding Board of Directors (BoD). Board Members are informed regularly on climate-related issues in the form of global trends as well as corporate performance, business plans, risks, and opportunities. CEO has the executive power for important issues such as strategy, risks/opportunities, targets, etc. Committees have been set up to assist the BoD with the proper fulfilment of its duties and responsibilities. Holding Early Detection of Risk Committee (RC), which is chaired by one of the independent Board Members, meets every two months. High risks evaluated and approved in the Risk Inventory by each Group Company's Board are also directly presented to the Holding Board for risk action determination after they are reviewed by the RC. In the reporting year, our climate and water-related risks were presented to the RC in several meetings and the risks which score higher than 16 according to our risk assessment procedure, were also presented to the BoD. Also in the reporting year, our draft Net-Zero roadmap was presented to our BoD. In September 2017, the Sustainability Committee (SC) was established. The Sustainability Committee is chaired by the Deputy CFO who is also a member of the Top Management. In 2019 the Environment Working Group was established as one of the 5

		working groups that report to the SC. The sustainability committee is also a subcommittee of the Corporate Governance Committee. The SC reports critical issues at least once a year to the Corporate Governance Committee (CGC). The CGC reviews the annual outcomes and recommendations presented by the Sustainability Committee and notifies the Board of Directors for reviewing and guiding strategy, major action plans, policies, etc. The Board of Directors reviews and guides business plans and approves annual budgets. Sustainability Committee sets performance objectives for climate change and water management while also monitoring the realization of climate change and water-related objectives on behalf of the Board of Directors. Changes in emissions data are also reported to the Board of Directors annually. The consolidated budget of Tekfen Holding is approved by the Board of Directors, hence the BoD also approves all of the investments of the Group Companies.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other committee, please specify Corporate Governance Committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Risk committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Sustainability committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other, please specify	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

Health, Safety, Environment and Quality (HSE&Q) Coordinator		
Other, please specify Environment Working Group (EWG)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Accountability on climate-related issues starts at the top, with the Holding Board of Directors (BoD). Committees have been set up at the Company to assist the BoD with proper fulfilment of its duties and responsibilities.

Established as per the legislation, two of these committees namely Early Detection of Risk Committee (RC) and Corporate Governance Committee (CGC) assist the BoD on climate-related issues. BoD, RC, and CGC's climate-related responsibilities include developing strategies and overseeing the management of climate-related risks and opportunities.

RC is led by an independent member of our board and another member of our board serves as the member of the RC. The RC meets every two months and, in these meetings, the CEO, Risk Director, Vice-Presidents, and Risk Managers of the Group Companies are also present. The RC identifies risks (including climate-related risks) that may threaten the existence, development, and continuation of the Company and takes the measures necessary to prevent them, and acts to manage the risks. Group Companies submit their periodic reports for monitoring the risks and RC reviews these risk documents every two months and refers the major risks and its own comments and assessments to the BoD. Risks are considered by the BoD, which may instruct Tekfen Group companies as to how particular risks are to be managed.

The CGC consists of two independent Board Members and Investor Relations Director. CGC undertakes studies regarding in-house arrangements and changes concerning the understanding, adoption, and implementation of corporate governance principles by the Company employees and submits the results of these studies to the Board of Directors. Therefore, all of the climate-related issues except risk management are within the scope of CGC.

The BoD, CGC, and the RC are informed about the climate-related risks, opportunities, scenarios, and possible courses of action by the CEO and the Deputy CFO who is also the Leader of the Sustainability Committee.

The Sustainability Committee (SC) is formed under the CGC in order to help the BoD oversee and effectively manage climate and sustainability-related issues with a holistic approach. SC is led by the Deputy CFO who is also a member of the Top Management. SC consists of management-level members appointed by top management of Tekfen Holding and the General Managers of Tekfen Group Companies, including Working Group Leaders (Corporate Communications and Sustainability Director, HSE&Q Coordinator, IT Director, Corporate Governance Director, and HR Director).

SC is responsible not only for formulating the Tekfen Group's sustainability strategies, road maps, objectives, policies, and reporting criteria including climate-related issues but also for integrating sustainability efforts in line with Tekfen Holding's priorities and for ensuring that all group companies are actively involved in dealing with sustainability issues.
In 2019, we have formed 5 working groups under the SC, one of which is the Environment Working Group (EWG). This group is led by the Holding HSE&Q Coordinator. The EWG is composed of Tekfen Group Company employees who are competent in the fields of climate change, energy efficiency, water management, biodiversity, and green buildings. EWG regularly notifies the SC on sustainability-related issues which are deemed crucial.
Material issues, risks, and opportunities related to climate change are also managed by the EWG. EWG is in charge of analyzing current and future trends on climate change scenarios, GHG accounting while continuously aiming to identify improvement projects. EWG is also responsible for preparing a roadmap for short, medium, and long-term targets.
The outcomes of the EWG meetings are reported to the SC. The chairman of the SC is the Deputy CFO who is a member of Top Management. The members of Top Management are CEO, General Secretary, CFO, Contracting Group Vice President, Agri-Industry Group Vice President, Strategy, Business Development, and Investments Vice President and Deputy CFO. Top Management holds regular meetings. Current and emerging climate change-related issues including material risks and opportunities together with carbon emissions performance as well as annual emissions reporting outcomes are monitored and analyzed by Top Management.
In addition, the BoD is also informed by the CGC, RC, and/or the CEO about climate-related issues like risks and opportunities, regulatory changes, targets, and status of achievement of these targets, strategies, and major plans of action. BoD is also informed by the HSEQ Coordinator on a case-by-case basis upon request on climate-related issues like possible Net-Zero road-maps for Tekfen.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	We have a performance assessment system, in which we use software namely "Pi Performance Management System". Our performance assessment methodology includes a top to bottom approach. Our CEO has targets related to compliance with the Sustainability Action Plan, which includes actions directly related to climate change. In 2020 our CEO's targets for the year 2021 were revised to include determination of a date when Tekfen Holding will commit to becoming Net-Zero and completion of the Net-Zero road-map and reduction of Scope 1 and 2 GHG emissions. The rate of achievement of his targets directly affects the lower-level

		executives, as all of the targets are interconnected. Achievement of annually set/revised targets and the Company's success directly contribute to the individual's performance score, resulting in monetary reward in the form of a performance bonus. So in this new system, climate-related issues are also one of the KPI's of almost all C-level and white-collar employees.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target Energy reduction project Efficiency project Behavior change related indicator Environmental criteria included in purchases Supply chain engagement	Our performance assessment methodology includes a top to bottom approach. Our CEO has targets related to compliance with the Sustainability Action Plan, which includes actions about corporate governance, stakeholder relations, social responsibility, environment, digitalization, and innovation. There are actions under environment and innovation that relate directly to climate change-related issues like reduction of Scope 1 and 2 GHG emissions, energy reduction, and efficiency projects. Our CEO also has targets to complete the Net-Zero roadmap and presenting the roadmap to the Board of Directors. This target was included in the targets of our CEO in 2020, but the target year is 2021. The rate of achievement of his targets directly affects the lower-level executives, as all of the targets are interconnected. The targets and their level of achievement are controlled using the software, namely Pi Performance Management System. Achievement of annually set/revised targets and the Company's success directly contribute to the individual's performance score, resulting in monetary reward in the form of a bonus.
Chief Financial Officer (CFO)	Monetary reward	Emissions reduction target Efficiency project Efficiency target Behavior change related indicator	Our performance assessment methodology includes a top to bottom approach. Our C-Suite Officers including our CFO have targets on energy reduction and efficiency together with targets to reduce GHG emissions. These targets are linked to the targets of our CEO. The rate of achievement of their targets directly affects the lower-level executives, as all of the targets are interconnected. The targets and their level of achievement are controlled using the software.

		Environmental criteria included in purchases Supply chain engagement	Achievement of annually set/revised targets and the Company's success directly contribute to the individual's performance score, resulting in monetary reward in the form of a bonus.
All employees	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Behavior change related indicator	Every month, Tekfen Agri-Industry picks an employee as Health, Safety, and Environment (HSE) Employee of the month for their HSE performance. Selection criteria include environmentally friendly initiatives. Tekfen Construction also rewards employees based on HSE performance including environmental performance. Our group companies also have their own targets as follows: - Scope 1+2 GHG emission reduction targets (Tekfen Manufacturing & Tekfen Agri) - Preparation of a Net-Zero roadmap (Toros Agri) - 50% renewable energy using iRec certificates in the central office of Tekfen Engineering - Using renewable energy in Ceyhan Production Facility of Tekfen Construction As our performance assessment methodology includes a top to bottom approach, the targets of each group company affect the performance of all employees starting from top management (General Managers), and white-collar employees. Achievement of annually set/revised targets and the Company's success directly contribute to the individual's performance score, resulting in monetary reward in the form of a bonus.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment

Short-term	0	1	Our short-term horizon is defined as 1 year which is the period that covers our detailed OPEX and CAPEX plan for both corporate management and risk management.
Medium-term	1	5	We define our medium-term horizon based on Tekfen Holding Strategic Plan which covers a 5-year plan. Therefore, 1 to 5 years is considered as medium-term for our Company.
Long-term	5	30	Any time horizon over 5 years is considered as long-term for Tekfen Holding. This is applicable to all business aspects including risk management. Moreover, long-term climate-related risks are evaluated on a scenario basis consistent with the horizons established by the international organizations such as IPCC and IEA covering 2030 and 2050 as crucial milestones.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The effect of identified risk is assessed 5 main impact areas, namely:

1. Financial impact
2. Legal impact
3. Reputational impact
4. Operational impact, and
5. Strategic impact

The risk is assessed to have a substantive impact if:

- Financially; if the risk impact is >1% EBITDA (singular impact, which equals 625.298 USD for the reporting period) or >0,5% of EBITDA (continuous impact, which equals 312.649 USD). EBITDA for the reporting period is 62.529.800 USD.
- Legally; due to legislative or contractual non-conformities medium level loss of business or fines (please see substantive financial impact definition above)
- Reputational; risk poses medium-level effects on our reputation. Some negative effects on clients or employees. Some bad press on local or national media. The situation is critical but can be kept under control.
- Operationally; 2 to 5 days of disruption in operations, events reducing the performance of employees. For construction projects 2-5% difference in planned and realized progress of projects.
- Strategically; Some mid-level impact on strategic plans and their execution. Strategies may need to be revised in some areas.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Tekfen Holding & Group Companies have a written Corporate Risk Management (CRM) document governing, explaining & laying down the rules for managing their respective risks. CRM document is prepared as per ISO 31000 Risk Management Standard & COSO Enterprise Risk Management Framework.

CRM specifically classifies risks as strategic, operational, financial, compliance & reputational risks.

All value chain stages, including direct operations, upstream and downstream are included in the risk assessments.

The periodic risk monitoring reports are submitted to the Early Detection of Risk Committee (RC) every two months. The organizational units tasked with the conduct & reporting of risk management activities have also been specified in every Tekfen Group company. Risk reports of every Group Company are submitted to the Holding after being approved by the respective company's Board of Directors(BoD).

RC reviews the risks documents received from the companies every two months & refers to the major risks & its own comments & assessments to the Tekfen Holding BoD. RC is led by an independent member of our board and the permanent members of the RC are two of our Board Members and the Risk Director. The RC meets every two months and, in these meetings, the CEO, Vice-Presidents, and Risk Managers of the Group Companies are also present. Risks are considered by the Tekfen Holding BoD, which may instruct Tekfen Group companies as to how particular risks are to be managed.

In addition, a copy of each Tekfen Holding Consolidated Risk Report is regularly sent to an independent auditor.

Climate & water risks at the corporate level are considered under strategic, financial & compliance risks while at an asset level, they are considered under operational, financial

& compliance risks. Activity-related environmental impacts at asset levels are also considered during environmental risk assessment processes under ISO 14001 EMS. Long-term climate-related risks are assessed up to 2050 based on the most recent scientific assessments of IPCC. The transitional impacts of climate change are assessed using the climate-related scenarios to limit global temperature change between 1.5 to 2oC (RCP1.9 & RCP2.6) whereas the physical impacts of climate change are factored into our risk assessments using median-case scenarios like RCP 4.5 and RCP6.

The 1st stage of risk management is the identification of financial, operational, reputational, strategic, compliance risks and the responsible owners of each risk.

The risk assessment is carried out in the 2nd stage at which the risk's gross impact, gross probability, both with a scale of 1 (very low) to 5 (very high) & the gross risk score is calculated by multiplying gross impact and gross probability & graded as; low (1-4), medium (5-14) or high (15-25). Current controls and their efficacy reveal the net risk score and the net financial impact. Risk analysis involves consideration of the causes and sources of risk, their positive and negative consequences, and the likelihood that those consequences can occur. Existing controls & their effectiveness are also considered. The risks that are assessed to have a substantive financial and/or strategic impact are addressed first.

The 3rd stage is deciding how to manage the risk (reduction, transfer, abstention, and acceptance).

Mitigation actions and the cost of actions are determined in the 4th stage.

The tracking of these actions makes up the 5th step.

During the selection of the most appropriate risk as well as opportunity management option, Tekfen evaluates the costs & efforts of implementation against the benefits derived, with regard to legal, regulatory & other requirements such as social responsibility & environmental protection. WEF Global Risks Report lists climate-related risks and water security risks among the top 10 risks. Therefore, Tekfen has chosen "reduction" as risk treatment and "capitalization" of opportunity generating options for both climate & water-related risks & opportunities.
RMD consolidates the risk inventories of all Tekfen Companies and reports the risks that have a net score over 16 to the BoD through RC. Risk portfolio including risks with net risk scores of more than 16 (4x4) is reported to the BoD every two months. These risks are monitored & followed upon by the BoD as well.

Climate-related opportunities are managed as part of new investments and acquisitions with the primary aim to convert risks into opportunities. For example; renewable energy generation is identified as an opportunity and Toros Agri acquired 70% of the biogas and organic fertilizer producer Gonen Renewable Energy Production, Inc. and 99,9% share of Toros Meram Renewable Energy with the aim of becoming a major player in

the organic and organomineral fertilizer markets.

Physical risk example:
According to climate scenarios, agricultural industry and especially farmers will be impacted severely by the chronic changes in precipitation regimes and extreme weather events.
The final customer for Toros Agri's products (fertilizers) is the farmers. A chronic change in the precipitation regime may impact the yield of the crops and reduce the profitability of the produce. As a result, small farmers may go out of business and this, in turn, will have an impact on reduced demand for our products and services.
After this risk was identified it was scored on gross probability and impact. The scoring was as follows:
Probability: High (4)
Impact: Financial impact of this risk is between 22.96 to 45.91 M$, which is way above our substantive impact threshold, hence the impact is scored as "Very High (5)"
The gross risk score is therefore 20 which is high, as this risk cannot be controlled the net risk score is the same. As the net score is over 16, this risk is reported to the BoD. Details of how this risk is addressed and managed can be found under section 2.3a of this report. (Risk 3)

Transitional risk example:
There are many transitional risks we face especially due to the geography we operate in. One of these risks is the implementation of an Emissions Trading Scheme (ETS) or a carbon taxation mechanism in Turkey and also for the goods we export to EU (carbon border adjustment within the scope of EU Green Deal). Turkey has an active MRV system which will probably include an ETS in the very near future. Our 3 fertilizer plants and their products fall under the scope of these emerging regulations. After this risk was identified, it was scored on gross probability and impact. The scoring was as follows:
Probability: Very High (5)
Impact: This risk has a max. financial impact of 28.89M$, hence its impact is scored as Very High (5)
The gross risk score is therefore 25 which is high. After the current controls are implemented the net risk score is assessed to be 16, and this risk is reported to the BoD. Details of how this risk is addressed and managed can be found under section 2.3a of this report. (Risk 2)

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Relevance: Doing business in line with current regulations is paramount for Tekfen Holding. All laws and regulations related to our activities are identified,

		monitored and our compliance is constantly assessed by internal auditors, third-party auditors, and local authorities. Example: Toros Agri's CO2 and N2O emissions are being externally verified and reported to the Ministry of Environment and Urbanization as part of the Turkish regulation on Monitoring GHG Emissions (MRV). Any possible changes or additional requirements to be prompted under this regulation are under our close radar and therefore included in our corporate-level compliance risk assessment. Moreover, other applicable legal requirements are considered in our Corporate Risk Management system under the risk type of "Compliance". In addition, at the asset level, compliance with legal requirements is also taken into consideration at the site-specific Environmental Impact Assessment process. As an example of site-specific legal compliance according to Article 8 of 'Regulation on Increasing Efficiency in the Use of Energy Resources and Energy', Tekfen Tower needs to implement ISO 50001 Energy Management System until 2023, and Toros Agri has already established ISO 50001 Energy Management System. Although risks related to the current regulations are always assessed under our risk management system, they are not reported under section C2.3a of this report because their estimated impacts are below the thresholds of our substantial impact definitions.
Emerging regulation	Relevant, always included	Relevance: We closely monitor the emerging climate-related regulations in all of the countries that we operate in and export our goods to. This gives us a chance to develop our strategy in the light of the new developments and reduce the risks of being exposed to emerging regulations. Example: At the end of 2020, a draft Climate Change Regulation was published under the World Bank Lead Partnership for Market Readiness Program. Although this regulation is still not presented to the Grand National Assembly of Turkey, it gives us a basic concept of the regulations that we will face in the near future. The regulation gives the signals of an emerging Emission Trading System (ETS) and/or potential Carbon Taxation mechanism in Turkey, which we have already factored into our risk assessments. Another emerging regulation is the EU-Green Deal, with the Carbon Border Adjustment (CBA) Mechanism, which will definitely impact our exports to the EU. Toros Agri has 3 fertilizer plants in Samsun, Mersin, and Ceyhan,

		which are already under the scope of Turkish MRV regulation, however, as there is no ETS mechanism in place yet, our only obligation is monitoring and reporting our GHG emissions which does not impose a high financial or strategic impact on us. Toros Agri regularly attends meetings on ETS and Low Carbon Development (Technical Support Project for Solution Based Strategy and Action Development for Low Carbon Development). We are considering all methods of carbon pricing mechanisms with the potential to come into force in the form of ETS and/or Carbon Tax in our climate-related risk assessments. In order to effectively manage this risk and prevent any substantive financial impact, we have determined an approximate cost of our GHG emissions and calculated our climate-related potential financial impact in case of an emerging carbon pricing mechanism regulation. This year we have also factored in the EU Carbon Border Adjustment into our risk assessments. Please see Risk 2 under section C2.3a of this report for further details on the assessment of risks related to the emerging regulations.
Technology	Relevant, always included	Relevance: As part of the Holding activities, Toros Agri operates in an emission-intensive sector. Therefore, active management of emissions to prevent related risks via reducing emissions by using low carbon technology is of great importance to us. We are also constantly investing in R&D projects and new technologies that have the potential to reduce GHG emissions on our value chain. Example: As an example of managing technology-related risks and opportunities, we are actively planning on installing a state-of-the-art catalyzer system in our fertilizer operations to reduce our N2O emissions which is around 77.71% of our gross Scope 1 GHG emissions. This is assessed to be a major opportunity for Toros Agri. Among the Group Companies, Toros Agri's production of N2O emissions-intensive fertilizers constitute 77.71% of our gross Scope 1 GHG emissions. If we manage and reduce N2O emissions, this can have the potential to result in increased revenue while helping us to become more resilient to the expected carbon pricing mechanism to be introduced in Turkey. In addition, we would be a preferred brand over other fertilizer manufacturers. We invest in technology to reduce our future climate-related risks, and

		we also use technological developments in order to benefit from climate-related opportunities. "Pivot Bio" and "Phospholutions" are two great examples of our technology investments in the agricultural industry. Both are technological start-ups with innovative products that have the potential to change farming practices and reduce the use of fertilizers up to 75%, hence reducing GHG emissions related to fertilizer use. In 2020 we have also signed a 5-year agreement with The Scientific and Technological Research Council of Turkey (TUBITAK), to develop projects. This agreement also includes the development of projects that will reduce our direct and value chain GHG emissions. We also use technology to benefit the environment through our value chain. As the agricultural sector is defined to be one of the main sectors to be affected by physical climate-related risks, we also make use of technology while awareness-raising and enabling efficiency in our customers' everyday lives. We closely monitor technological applications used in the industry to reduce our N2O related GHGs. Overall, technology-related risks, as well as opportunities, are assessed as part of strategic risks covering both company and asset levels.
Legal	Relevant, always included	Relevance: Non-compliance with all laws and regulations including climate-related ones causes risk which exposes our Company to litigation. Therefore, legal compliance is paramount to Tekfen Group Companies, and compliance risks are identified as one of the 5 main risk categories assessed in our corporate-wide risk management system. However, there is no risk under this category identified as substantive to date except the emerging ETS regulation, and EU Carbon Border Adjustment Mechanism which is assessed under the risk type "emerging regulation". Example: For example, emerging ETS regulation has legal repercussions and we are actively managing our emissions reporting system. We closely monitor technological applications used in the industry to reduce our N2O related GHGs. Applicable legal requirements are considered in our Corporate Risk Management system under the risk type of "Compliance". In addition, compliance with the legal requirement is also taken into consideration at the site-specific Environmental Impact Assessment process at the asset level.

		Other than the emerging regulations on ETS and EU Carbon Border Adjustment Mechanism, no other legal risks are assessed to have substantive financial or strategic impacts, so no legal risks are reported under section 2.3a.
Market	Relevant, always included	Relevance: Sectoral, as well as market, risks are closely monitored on a Group Company basis. Our three business areas; Engineering and Contracting Group, Chemical Industry, and Agricultural Production Group are among the sectors which are likely to experience climate change impacts the most. Example: In the context of climate change, one of the main risks we are currently facing in our contracting sector activities is the risk of changing consumer behavior. The project activities that we undertake are mainly in the oil and gas industry, and due to the raising awareness about climate change, the contracting Group's existing customers are likely to shift preferences to move towards low carbon projects. This will reduce the number of projects and therefore will have an impact on the Group's turnover. Currently, approximately half of the Group's operations cover oil and gas projects, and 60,6% of Tekfen Holding's revenues come from the Tekfen Contracting group. You can find more details about the assessment and management of this risk under Risk1 in section C2.3a of this report.
Reputation	Relevant, always included	Relevance: Our brand image and reputation are very important both locally and internationally. Therefore, under our multidisciplinary corporate-wide risk assessment reputational risks are one of the five main topics evaluated. Example: As part of reputational risks, we expect some pressure due to climate-related issues on our companies that can affect our brand image. Increasing demand for climate-related mitigation measures from international initiatives (e.g. NACAG), local communities, and NGOs can result in an increased level of stakeholder pressure towards fertilizer production facilities. Toros Agri's Mersin Fertilizer Production Plant (the only facility with N2O emissions and emitting around 77.71% of our Gross Global Scope 1 GHG emissions due to N2O emissions) may therefore be subject to increased stakeholder pressure due to its main operation. This may result in loss of reputation. These pressures

		and reputational loss may result in decreased demand for N2O related fertilizers, namely Calcium Ammonium Nitrate (CAN) and Ammonium Nitrate (AN). Our main operations include Contracting activities in the oil and gas industry and high N2O emitting fertilizer production that are specifically considered in the context of our reputation. We are aware that climate-related reputational risks are material to us but at the same time, if well managed they may create opportunities for us. According to the IEA Net-Zero by 2050 report, in order to reach the net-zero target by 2050, no new oil and gas field development project should be approved as of 2021. Therefore, we have diversified our services to maintain the existing refineries to optimize their performance and the resulting GHG emissions rather than focusing on building new ones. In our Chemical Industry operations, we actively investigate the feasibility of new technologies which can enable significant N2O emissions reductions and develop new fertilizers with low carbon and water footprint. Although climate-related reputational risks are always assessed under our risk management system, they are not reported under section C2.3a of this report because their estimated impacts are below the thresholds of our substantial impact definitions.
Acute physical	Relevant, sometimes included	Relevance: Acute physical risks, especially flooding due to excessive rainfall, losing crops because of hail storms, and extreme low temperatures and droughts which ruin the crops are among the risks we take into consideration at all times for the continuity of our operations. Excess rainfall and flooding have been especially apparent in recent years in the geographies we operate in. Example: As part of Tekfen Holding operations, our Chemical Industry and Agricultural Production operations are among the ones that are likely to be affected by the increasing severity and frequency of extreme weather events. This risk has 2 dimensions for our operations: (1) In both our Toros Agri and Tekfen Agri operations we have warehouses where our products are stored. Acute and severe physical events can damage our products, causing revenue loss together with

		likely damage to our assets; (2) Tekfen Agri is a stone fruit producer (such as apricots and cherries) which are vulnerable to extreme weather conditions. Therefore, if the severity of extreme weather events such as hail, cyclones, etc. increases, we may face a risk of reduced output as our products will be adversely affected in both quality and quantity, leading to revenue loss. We are aware of the impact that acute climate-related physical events can damage our operations. We are considering the acute and chronic physical impacts of climate change on our assets both for existing operations and future investments. These risks are evaluated as part of operational risks along with any type of risk that can affect the business continuity. As acute physical risks are not continuous, we assess them on a case-by-case basis as part of plant/ workplace-specific emergency response plans. Acute physical risks can also affect the supply chain operations of Tekfen Agri which include purchasing fruits from the dedicated orchards. The effects of acute physical events may result in a disruption in supply chain operations or a rise in operational expenses. This is one of the risks identified and monitored, however, it is not assessed to have a substantial financial impact therefore not reported under section C2.3a.
Chronic physical	Relevant, always included	Relevance: Chronic physical risks, especially water stress due to climate change is a very important risk for us as it can adversely affect our agricultural activities, such as; (a) reduce our yield in Tekfen Agri Group Company operations who has its own orchards as well as suppliers who produce high-quality stone fruits, and (b) reduce the demand for Toros Agri's fertilizers. Example: Chronic changes in precipitation and extreme weather event patterns do have the potential to impact various aspects of our operations. The most substantive financial impact, however, will be on our Tekfen Agri's agricultural production operations. Among stone fruits, Tekfen Agri produces various products that are vulnerable to changing climate patterns and chronic extreme weather events. Evaluating scientific climate change and water scenario analysis conducted by internationally well-respected organizations such as IPCC, there is a

		clear indication that chronic and extreme weather events will get more frequent in the medium to long term. If these extreme climate patterns are to get to a certain point, it will affect our products directly, resulting in decreased output related to revenue loss. In order to prevent this, we are more likely to invest in countermeasures such as placing hail nets, shading systems, and/or drill new wells to have access to sufficient amounts of water. Therefore, overall, this risk may result in increased capital costs for us. For further information on how this risk is assessed and managed, please see Risk 3 under section C2.3a of this report. We are considering the acute and chronic physical impacts of climate change on our assets. In order to better manage the climate-related chronic physical risks that we are exposed to, we evaluate climate change scenario analysis such as IPCC RCP 4.5, and use widely respected tools such as WRI Aqueduct and WWF Water Risk Filter Tool to assess the longer-term shifts in climate patterns together with water stress as well as other water-related both current and future risks.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

This risk has two aspects, the first one is the impact of changing customer behaviour on Engineering&Contracting Group's oil and gas infrastructure projects, and the second aspect is the changing consumer behaviour in the EU where Toros Agri exports fertilizers.

1. Engineering&Contracting Group undertakes projects mainly in the oil and gas industry. However, due to increasing divestment from fossil fuel projects in line with the transition to a low carbon economy and aiming to achieve ambition GHG emission reduction, the Group's existing customers are likely to shift preferences and move towards low carbon projects. This will reduce the number of projects and therefore will have an impact on the Group's turnover. Currently, approximately 1/3 of the Group's operations cover oil and gas projects, and 60,6% of Tekfen Holding's revenues come from the Engineering&Contracting Group.

2. Toros Agri produces chemical fertilizers. As a part of the European Green Deal, the EU is planning to become carbon neutral by 2050. The Farm to Fork Strategy is at the heart of the European Green Deal aiming to make food systems fair, healthy, and environmentally friendly. The Strategy sets ambitious targets one of which is a reduction of nutrient losses by at least 50% while ensuring that there is no deterioration in soil fertility and reduction of fertilizer use by at least 20%. These will undoubtedly change the customer behaviour towards using less chemical fertilizers, impacting the EU export volumes of Toros Agri.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

107,530,000

Potential financial impact figure – maximum (currency)

215,840,000

Explanation of financial impact figure

For Engineering& Contracting Group:
Approximately 1/3 of the Engineering&Contracting Group's business volume is in the oil

and gas industry. For the reporting period, this reflects about 319.55 Millon USD revenue from oil and gas projects (193.67 million USD from oil projects and 125.88 million USD from gas projects).

According to Rapid Scenario in "BP Energy Outlook 2020" study, the oil production volume will reduce from 98 million barrels per day in 2018 to 47 Mbpd in the year 2050 (52.04% reduction in global oil production). The same study suggests that natural gas production will reduce from 3865 Billion cubic meters (Bcm) to 3717 Bcm in 2050 (3.83% reduction in global natural gas production).

When we apply these values to our revenues from oil and gas projects for the year 2020, we are facing a 100.78 million USD risk in our oil projects and 4.82 million USD risk in our gas projects, which adds up to a minimum risk of 105.61 million USD revenue loss (Around 33% loss).

According to "DNV GL Energy Outlook 2020" study, world upstream oil and gas CAPEX will reduce considerably by the year 2050, estimating a massive 84.62% reduction in oil-related CAPEX and a 38.24% reduction in natural gas-related CAPEX. This reflects to our revenues as a 163.87 million USD risk on our oil projects and 48.13 million USD risk on our gas projects. This adds up to a maximum risk of 212 million USD loss (around 66% loss in oil and gas-related income).

For Toros Agri Operations:
The potential financial impact figure for Toros Agri is calculated with the assumption that 10-20% of Toros Agri’s European sales revenue will be affected adversely from the EU Green Deal.

Toros Agri’s 2020 sales revenue from European operations was 19,199,082 USD. 10% of this figure is 1,919,908 USD and 20% is 3,839,816 USD

Therefore, the minimum impact figure for both Tekfen Construction and Toros Agri is:
105.61 + 1.92 = 107.53 million USD
And the maximum impact figure is:
212.00 + 3.84=215.84 million USD

Cost of response to risk

49,470,609

Description of response and explanation of cost calculation

In 2019 41.29% of Tekfen Construction’s business volume was oil & gas projects, whereas in 2020 this value was reduced to 32.26%. The impact of the reduction of business volume was overcome by an increase in other project types for Tekfen Construction. We have also started playing an active role in the maintenance and repair of existing industrial facilities.

In 2020, strategic connections were established with important technology providers &

customers & collaborations with new projects were developed. We have signed a 5-year agreement with TUBİTAK (The Scientific & Technological Research Council of Turkey) to develop projects on Sustainability related issues including waste management, water treatment technologies & alternative energy technologies. The cost of this cooperation agreement is 2,860,841 USD over 5 years.

In line with the sustainability targets of Tekfen Holding, in 2020 Tekfen Engineering has established a Working Group (WG) to improve the company's competencies in designing environmental technologies. The WG has determined target markets for the Engineering and Contracting Group companies by researching conventional & new environmental technologies.
The content of the studies are basically covered with the following topics and supported by related projects and communication channels;
1. Conventional Environmental Technologies: water purification, industrial and household wastewater treatment, air pollution control, sulphur recycling, and emissions improvement, solid waste management.
2. Clean energy production technologies: Energy from biomass (traditional biogas production), biofuel/biochemicals production from waste (gasification), plastics recycling (chemicals recycling), solar power, wind power, hydrogen and fuel cells, biofuels/biochemicals production from 2G biomass, carbon capture, storage, and reuse technologies.
3. Environmental Infrastructure: water procurement and distribution, waste-water removal, sustainable transportation

In 2020, the R&D expenses of the Engineering & Contracting Group were 609,768 USD.

In order to reduce the risk for Toros Agri, we have invested in Gonen and Meram Renewable Energy plants, which are integrated biogas & organic fertilizer production plants operating with zero liquid waste goal & producing renewable electricity as well as organic fertilizer. The cost of these two investments is 46 million USD.

The total cost of response equals to:
2,860,841 + 609,768 + 46,000,000 = 49,470,609 USD

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

This risk has two aspects, the first one is the emerging regulation in Turkey, and the second one is the emerging regulation (EU Green Deal- Carbon Border Adjustment Mechanism) in the EU where we export our products (mainly fertilizers).

Turkish GHG regulation requires monitoring, verification, and reporting of CO2 emissions from certain heavy emitting industries such as electricity producers, cement, lime and steel, and fertilizer production, etc. with the future intentions of an Emission Trading System or Carbon Tax.

Toros Agri has 3 fertilizer plants in Samsun, Mersin, and Ceyhan, which are already under the scope of Turkish MRV regulation. Turkey is in the process of establishing a carbon pricing mechanism either via an emissions trading system or through a carbon tax. The background for this regulation is already present (Turkish MRV) and brings on requirements such as the installation of Continuous Emissions Monitoring Systems (CEMS) to sectors with high GHG impact.

Turkey has not yet implemented an ETS or a carbon taxation mechanism, but a draft climate regulation was published under the World Bank's PMR Turkey program at the end of 2020 and this regulation also includes an ETS scheme. In 2019 and 2020 ETS simulation studies were also performed under the PMR project.

All these progress and active efforts show that there will be ETS and/or carbon tax in Turkey and this will increase our operating costs.

From the EU perspective, the European Commission announced the European Green Deal (EGD) program in December 2019. The main aims of the EGD are to create the first climate-neutral continent by 2050, to protect production and employment in the EU, and for the EU to become an effective player in global emissions reductions. The effects of the EGD will not be limited to the EU. It would be fair to think of the EGD as the driving force behind the maturing "New Climate Regime," which would ultimately transform other countries with trade, financial, and political ties to the EU.

The EGD utilizes two tools that are applied through trade channels. These are the Carbon Border Adjustment (CBA) mechanism and the circular economy regulations. CBA aims to tax imports to the EU market according to the carbon content of the imported goods.

As Toros Agri exports fertilizers to the EU, it would be fair to assume that CBA will increase the operating costs of Toros Agri.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,917,554

Potential financial impact figure – maximum (currency)

28,887,583

Explanation of financial impact figure

The minimum and maximum potential financial impact figures were estimated based on some recent studies published by the PMR Turkey and TUSIAD.

In the most recent (July 2020) ETS simulation workshop (Turksim Workshop 5) performed under the PMR project, the study report prepared by Vivid Economics, shows a floor price of 25 TL (3.41 USD) per ton carbon.

Another study published by TUSIAD (Turkish Industry and Business Association) analyses the potential impacts of the EU Green Deal and the Carbon Border Adjustment mechanism on the Turkish industries. In this study, it is assumed that there may be a CBA tax around 1.1€ to 1.9€ per 100€ of goods exported to the EU for the Chemical Industry and the study also values the price of an EUA between 30 to 50 Euros (34.2 to 57 USD).

When estimating the financial impact of this risk the minimum figure is calculated using the Turksim estimation and max. the figure is calculated using the TUSIAD max. estimated EUA value.

In 2020 the verified total N2O and CO2 emissions of the 3 plants owned by Toros Agri were equal to 834,000 tons of CO2e.

The ETS simulation studies published under the PMR Project, include capping the emissions at 80% and a free allocation of 50% of the allowances. This results in a liability of about 60% (840,000 x 0,60= 500,400 tons CO2e).

The potential financial impact for the implementation of a Turkish ETS is therefore calculated by multiplying 60% of our current GHG emissions by the unit price per ton of

CO2e.

Min. Impact=500,400 x 3,41 USD=1,706,364 USD
Max. Impact=500,400x57 USD=28,522,800 USD

The above figures represent the potential financial impact of a Turkish ETS. The impact of EU CBA is calculated using the % revenue loss estimations for the chemical industry published in TUSIAD's "The New Climate Regime through The Lens of Economic Indicators Report" as follows:

2020 Revenue from EU Sales: 19,199,082 USD
1.1% revenue loss (CBA Impact Min)=211,190 USD
1.9% revenue loss (CBA Impact Max)=364,783 USD

Total impact min: 1,706,364+211,190 = 1,917,554 USD
Total impact max: 28,522,800 + 364,783=28,887,583 USD

Cost of response to risk

2,756,934

Description of response and explanation of cost calculation

There are technologies that offer around 85% reduction in N2O emissions at Toros Agri Mersin Facility Nitric Acid Plant. With the technical consultancy provided by the Nitric Acid Climate Action Group (NACAG), we have completed the feasibility study to select the most appropriate technology to invest in. The cost of management covers the approximate cost of installing a new catalyzer system to reduce N2O emissions which have been allocated following the approval of Toros Agri Board of Directors. The cost of the N2O catalyzer system is USD 1.230.000.

Another response to this risk, which is also a part of our highest efforts to continuously work on developing new and more environmentally friendly products, we have invested in an R&D Center in Mersin as part of our fertilizer production practices.

Having received its Ministry of Industry and Technology license in 2017, the Toros Agri Mersin Plant's R&D Center began working in the same year. 2018 was a year in which substantial progress was made by engaging in scientific efforts to meet the agricultural sector's demands and needs and giving priority to the development of new products that will help improve agricultural productivity. Employing 33 people, the center's goals include developing new products that will further diversify Toros Agri's plant nutrients portfolio as well as addressing issues such as improving existing products, water-soluble and slow-release fertilizers, developing production processes, optimization, production-related energy conservation, and reducing environmental impact.

For example, in the reporting period, as a result of the R&D activities held, the specialty fertilizer portfolio was enriched by the addition of Smart Urea and Smart N21 which are slow-release fertilizers. Studies show that depending on circumstances in cultivation,

slow-release fertilizers can reduce denitrification and greenhouse gas emission by up to 40%. In the reporting year, sales of these specialty fertilizers went up by 40.7% with respect to 2019.

The total cost of the response to this risk covers the investment cost of the catalyzer unit (USD 1.230.000) the initial investment cost of the R&D center (USD 715,000) as well as the R&D budget dedicated to the Center (USD 811,934) in the reporting period.

Therefore, total cost of response to this risk is USD 2,756,934 (1.230.000 + 715,000 + 811,934)

Comment

We are also investing in projects that produce renewable energy and organic fertilizers from waste. These projects are not listed under the description of the cost of response section, because although these are a part of our response to this risk, the investment decisions are not based solely on this risk. They are part of a broader vision of Tekfen and a rather strategic decision on our roadmap to becoming a net-zero company. Within this broader vision, Toros Agri acquired 70% of the biogas and organic fertilizer producer Gonen Renewable Energy Production, Inc. and 99,9% share of Toros Meram Renewable Energy with the aim of becoming a major player in the organic and organomineral fertilizer markets. Toros Meram, which is a very successful application of circular economy, became operational in 2020. Meram has a capacity of 770 tons/day of wet waste disposal and produces renewable energy from biogas which is obtained from the fermentation of the organic waste. The facility also produces solid and liquid fertilizers from the wastes that finalize the gasification process. Both facilities are completely environmentally friendly with their zero liquid waste discharge, advanced flue gas treatment, and heat recovery system.

Gonen Biogas Plant was validated under Gold Standard (Project ID GS1160) to provide around 62,537 tons of CO2e emissions reductions per annum.

Meram Biogas and Organic Fertilizer plant is also a Gold Standard applicant project (GS5920), which is expected to reduce 24,191 tons of CO2e emissions per annum.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

As the world grapples with the climate change phenomenon, Turkey is already dealing with its consequences, and extreme weather cases are on the rise in Turkey. We have already started experiencing more frequent and extreme weather events.

The physical impacts of climate change are assessed using IPCC RCP4.5 scenario. According to the “Climate Change Projections for Turkey: Three Models and Two Scenarios” study which was published by Turkey State Meteorological Service, Research Department, Climatological Service in 2017:

Turkey will face a 2 to 3 degrees Celsius increase in mean temperatures between 2013-2040 and up to 4 degrees Celsius in later periods. Reductions in mean precipitation are also expected.

The agricultural industry and especially farmers will be impacted by these chronic changes in precipitation regimes and extreme weather events.

The final customer for Toros Agri’s products is the farmers. A chronic change in the precipitation regime may impact the yield of the crops and reduce the profitability of the produce. As a result, small farmers may go out of business and this, in turn, will have an impact on reduced demand for our products and services.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

22,955,800

Potential financial impact figure – maximum (currency)

45,911,600

Explanation of financial impact figure

The potential financial impact figure given is calculated with the assumption that 5-10% of small farmers going out of business, which means Toros Agri’s revenues from

fertilizer sales to domestic markets may reduce 5-10%. The given minimum and maximum potential financial impact figures correspond to 5% and 10% of the domestic sales in the reporting period, which is around USD 459,116,000.

5% of USD 459,116,000 = USD 22,955,800 .
10% of USD 459,116,000 = USD 45,911,600.

Cost of response to risk

1,555,414

Description of response and explanation of cost calculation

To manage these impacts, at the business level, Toros Agri is supporting research and development of fertilizers and crops resistant to climatic conditions.

Cost of management realized during the reporting period covers the following actions;

An investment was made by Toros Agri on a Research and Development Center to develop innovative products that require less water and avoids water pollution. In addition, slow-release fertilizers (Smart Urea and Smart N21) were also included in the portfolio. Studies show that depending on circumstances in cultivation, slow-release fertilizers can reduce denitrification and greenhouse gas emission by up to 40%. Total cost to realize opportunity covers the initial investment cost (USD 715,000) as well as the R&D budget dedicated to the Center (USD 840,414) in the reporting period.

Therefore total cost of response is USD 1,555,414 (715,000+ 840,414)

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical
Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

As the world grapples with the climate change phenomenon, Turkey is already dealing with its consequences, and extreme weather cases are on the rise in Turkey. We have already started experiencing more frequent and extreme weather events.

The physical impacts of climate change are assessed using IPCC RCP4.5 scenario. According to the “Climate Change Projections for Turkey: Three Models and Two Scenarios” study which was published by Turkey State Meteorological Service, Research Department, Climatological Service in 2017:

Turkey will face a 2 to 3 degrees Celsius increase in mean temperatures between 2013-2040 and up to 4 degrees Celsius in later periods. Reductions in mean precipitation are also expected.

Chronic changes in precipitation regimes and extreme weather events do have the potential to impact various aspects of our operations as explained in Risk3 above and another major impact is assessed to be on our operations in the Agricultural Production Group.

Tekfen Agri produces various products that are vulnerable to changing climate patterns and chronic extreme weather events (i.e. stone fruits). Evaluating scientific climate change and water scenario analysis conducted by internationally well-respected organizations such as IPCC, there is a clear indication that chronic and extreme weather events will get more frequent in the medium to long term. If these extreme climate patterns are to get to a certain point, it will affect our products directly, reducing our production capacity which will, in turn, result in a decrease in our revenues.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

5,480,000

Potential financial impact figure – maximum (currency)

8,220,000

Explanation of financial impact figure

The potential financial impact figure given is calculated with the assumption that 20% - 30% of Tekfen Agri’s revenue will be affected adversely by climate-related chronic physical events. We decided on this range due to the high yield losses in 2019 and 2020. Tekfen Agri realized a turnover of USD 27.4 million in the reporting period and

therefore the estimated potential financial impact was calculated as 20-30% of this sum; between USD 5.48 to 8.22 million.

Cost of response to risk

1,660,193

Description of response and explanation of cost calculation

To manage these impacts, at the business level, Tekfen Agri is supporting the research and development of crops resistant to climatic conditions. At the asset level, Tekfen Agri has started to implement an efficient irrigation system supported by humidity sensors and meteorological stations.

Cost of management realized during the reporting period covers the following actions;

(a) In order to support the resilience of the sector, a total of 10 projects, five projects within the scope of crop seed operations and breeding activities, four projects within the scope of techno-agriculture R&D activities, and one project in the 'Other' category, were carried out in Tekfen Agri's R&D in 2020. We are working on 2 varieties of sesame and wheat with different water requirements. Studies are underway to develop high-yielding varieties suitable for irrigated conditions as well as varieties that can be grown successfully in marginal areas suitable for dry conditions. In this way, it is planned to increase our market share and to make great contributions to the country's economy by having varieties with 2 different climate requirements. In addition, studies are carried out to improve the tolerance of agricultural products to drought, salinity, diseases, and pests and to grow more climate-resilient varieties. In the reporting period, the total cost of these projects was USD 1,645,664.

(b) In the reporting period, Tekfen Agri invested in Smart Irrigation System. 6 humidity sensor stations were established and integrated into Metos Meteorological Stations. The total investment made in 2020 was USD 14,529.

Therefore total cost of response is USD 1,660,193 (1,645,664 + 14,529)

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Ability to diversify business activities

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The increasing adoption of organic agriculture by the consumers and the increase in the demand for food safety in the world have caused the organic and organo-mineral fertilizer market to grow steadily. Many countries offer incentives that direct farmers to organic farming.

Studies in Turkey have revealed that 94% of the available agricultural land is poor in organic matter. For the first time in 2019, the Turkish Ministry of Agriculture and Forestry announced a “Solid Organic-Organomineral Fertiliser Usage Support” with the aim to fight this deficiency. Due to the effect of such support programmes that promote organic agriculture, the organic and organomineral fertilizer market tends to show rapid growth in Turkey. Consumption of organomineral fertilizers is expected to increase by 245% reaching 295,000 tons in 2024, while organic fertilizer consumption is expected to reach 150,000 tons with a parallel growth in the same period. This represents an opportunity as Toros Agri, which introduced its first organomineral fertilizers to the market in 2017, is already active in this market through two subsidiaries; Toros Gönen Renewable Energy and Toros Meram Renewable Energy.

Toros Gönen was already operational when acquired in 2019 and Toros Meram started its operations in 2020. Both facilities are successful examples of the circular economy with a total capacity of 1,170 tons of waste disposal per day, producing biogas through the fermentation of organic wastes, and generating electricity from biogas. Both facilities also produce solid and liquid organic fertilizers from the wastes that have completed the gasification process. Working with the principle of “zero liquid waste discharge”, the facilities are environment-friendly enterprises with their advanced flue gas treatment and heat recovery systems.

These two production facilities with a total capacity of 115,000 tons, present us with an opportunity to increase our revenues through increased demand for our products.

Toros Agri continues to work hard in order to conduct marketing activities to support

field sales, trigger the consumers' demand, and raise awareness in the industry through production trials. Throughout the 2020 production season, the company conducted 13 trial runs with specialty, organic, organo-mineral, and inhibitor-added fertilizers in six different regions of Turkey with different climatic conditions.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

3,106,208

Potential financial impact figure – maximum (currency)

38,327,151

Explanation of financial impact figure

As explained in the company-specific description, this opportunity presents us with a potential increase in our revenues through increased demand for our products.

The minimum potential financial impact is calculated by the realized figures of production in 2020. This figure includes the sales of solid and liquid organic fertilizers produced in 2020 (982,464 USD).

The minimum impact figure also includes the sales of the electricity produced by Gonen Renewable energy in 2020 (2,123,744 USD)

Therefore, the minimum financial impact is calculated as:
982,464 USD+2,123,744 USD=3,106,208 USD

The stated max. potential financial impact figure is the max. annual potential production capacity for both facilities. The impact figure is calculated with the current sales prices which is a conservative estimate.

If both facilities work at full capacity, their total production volume will be 115,000 tons of organic and organomineral fertilizers. This equals to 29,370,000 USD revenue.

Both facilities also produce renewable energy, which is also an extra opportunity for financial income for Toros Agri. When working in full capacity both facilities will produce

67,347 MWh of renewable energy which translates to 8,957,151 USD of revenue from the sales of electricity.

Therefore, the maximum financial impact is calculated as:
29,370,000 USD+8,957,151 USD = 38,327,151 USD

Cost to realize opportunity

46,000,000

Strategy to realize opportunity and explanation of cost calculation

The strategy to realize this opportunity is the investment we made to Toros Gonen Renewable Energy Production and Toros Meram Renewable Energy Production. Our decision to invest in these two facilities is also part of a broader vision of Tekfen and a rather strategic decision on our roadmap to becoming a net-zero company. Within this broader vision, Toros Agri acquired 70% of the biogas and organic fertilizer producer Toros Gonen Renewable Energy Production and 99,9% share of Toros Meram Renewable Energy with the aim of becoming a major player in the organic and organomineral fertilizer markets.

The cost calculation includes the acquisition of 70% of Toros Gonen Renewable Energy (7 million USD) and the investment made in 99.9% of Toros Meram Renewable Energy (39 million USD).

This investment is a one-time cost, whereas the potential financial impact of this opportunity is annual.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Specialty fertilizers are water-soluble fertilizers that are preferred in agricultural lands where drip and sprinkler irrigation systems are used, especially in greenhouse farming.

The widespread use of advanced irrigation systems and soilless farming, due to the increasing importance of obtaining maximum efficiency per unit area in agriculture and the increasing water shortage on a global scale, have in parallel led to the growth of the water-soluble fertilizer market. The global specialty fertilizer market, which is thought to be worth 18.2 billion USD in 2019, is estimated to reach 21.1 billion USD by 2025, with a growth of 16%. This forecast directs the attention of major producers to this area and leads them to develop growth strategies for this promising product range.

In terms of greenhouse farming, the specialty fertilizer market in Turkey, which has a strong position within the Mediterranean climatic zone, is growing each day. In addition to the greenhouse production particularly concentrated in the Mediterranean and Aegean regions, the increase in drip irrigation systems in field crop cultivation ensures the steady growth of the water-soluble fertilizer market. The size of the water-soluble fertilizer market in Turkey, which is thought to be 129,000 tons in 2020, is estimated to reach 135,000 tons and an average value of 125 million USD in 2021.

Toros Agri, the pioneer in the specialty fertilizer industry in Turkey, is one of the most remarkable players in the field.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

2,600,000

Potential financial impact figure – maximum (currency)

4,200,000

Explanation of financial impact figure

The global specialty fertilizer market is estimated to grow by 16% by 2025. The size of the water-soluble fertilizer market in Turkey, which is thought to be 129,000 tons in 2020, is estimated to reach 135,000 tons and an average value of 125 million USD in 2021. This presents us with an opportunity to increase our revenues through access to

new and emerging markets.

In 2020, Toros Agri's sales of specialty fertilizers were 57,859 tons.

The min. and max. financial impacts were calculated assuming a 10% increase until 2025 (57,859 tons * 1,10 = 63,645 tons) and 16% increase until 2025 (57,859 tons *1,16 = 67,116 tons)

The increased amounts have a financial reflection of min. 2.6 million USD and max. 4.2 USD increase in our specialty fertilizer sales revenues (Average sales price of special fertilizer was 450 USD/ton)

Cost to realize opportunity

1,526,934

Strategy to realize opportunity and explanation of cost calculation

As part of our highest efforts to continuously work on developing new and more environmentally friendly products, we have invested in an R&D Center in Mersin as part of our fertilizer production practices. Having received its Ministry of Industry and Technology license in 2017, the Toros Agri Mersin Plant's R&D Center began working in the same year. 2018 was a year in which substantial progress was made by engaging in scientific efforts to meet the agricultural sector's demands and needs and giving priority to the development of new products that will help improve agricultural productivity. Employing 28 full-time people, the center's goals include developing new products that will further diversify Toros Agri's plant nutrients portfolio as well as addressing issues such as improving existing products, water-soluble fertilizers, developing production processes, optimization, production-related energy conservation, and reducing environmental impact.

Within the scope of the project to develop fertilizers with controlled nitrogen release, it was aimed to reduce agricultural greenhouse gas emissions and reduce nitrate pollution in groundwater by making urea, NPK, and Ultra Nitrogen fertilizers with slow release. Within the scope of this project, our product "Smart Urea" has been registered. We have also applied to TEYDEB 1501 for this project and the project was entitled to receive support from TUBITAK.

TUBITAK 1501 project - Development of Slow Release Urea Fertilizer for Reducing Greenhouse Gases and Nitrate Loss Caused by Washing and Field Efficiency Research studies are also carried out.

In the reporting year, sales of these specialty fertilizers went up by 40.7 % with respect to 2019.

The total cost to realize opportunity covers the initial investment cost (USD 715,000) as well as the R&D budget dedicated to the Center (USD 811,934) in the reporting period.

(USD 715,000 + USD 811,934= USD 1,529,934 .

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Participation in carbon market

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

3 fertilizer plants of Toros Agri are regulated under Turkish MRV regulation. Turkey is in the process of establishing a carbon pricing mechanism, under which we will probably have a cap on our N2O emissions. If we invest in catalyzer technology that will reduce our N2O emissions by 85%, we may have an opportunity to remain well below our emission cap, which will present an opportunity to sell our emission allowances.

This project is also under consideration as an emission reduction project as it will reduce a significant amount of N2O emissions. We also have an opportunity to benefit from the sales of the GHG emission reduction credits.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

669,188.63

Potential financial impact figure – maximum (currency)

11,185,851

Explanation of financial impact figure

The minimum and maximum potential financial impact figures were estimated based on some recent studies published by the PMR Turkey and TUSIAD.

In the most recent (July 2020) ETS simulation workshop (Turksim Workshop 5) performed under the PMR project, the study report prepared by Vivid Economics shows a floor price of 25 TL (3.41 USD/tCO2e)

Another study published by TUSIAD (Turkish Industry and Business Association) analyses the potential impacts of the EU Green Deal and the Carbon Border Adjustment Mechanism on the Turkish industries. In this study, the price of an EUA is valued at between 30 to 50 Euros/tCO2e (34.2 to 57 USD/tCO2e).

When estimating the financial impact of this opportunity the minimum figure is calculated using the Turksim estimation and max. the figure is calculated using the TUSIAD max. estimated EUA value.
In 2020 the verified total Scope 1 GHG emissions under the Turkish MRV was equal to 834,000 tons of CO2e in 3 fertilizer plants, 819,580 tons of which comes directly from N2O emissions in Mersin Plant. Therefore we can say that in 3 fertilizer plants 819,580 tCO2e comes from N2O emissions and 14,420 tCO2e comes from the other Scope 1 emissions.

Assuming our GHG emissions are capped at 80%, then we would have an emission limit of 667,200 tons CO2e (834,000 x 0.80).

50% of capped limit (667,200 tCO2e x 0.50 = 333,600 tCO2e) would probably be allocated free of charge according to a recent ETS simulation study performed under the PMR project. That means we will have a free allocation of 333,600 tCO2e.

If we are able to reduce N2O emissions by 85% from the 2020 levels, our emissions will be 127,937 tons CO2e (819,580 x0.15). With the other Scope 1 emissions, total Scope 1 GHG emissions in our fertilizer plants will be 137,357 tCO2e (127,937 + 14,420). So although we have an allocation of 333,600 tCO2e, our emissions will be lower and we will be able to trade the remaining amount which is 196,243 tCO2e (333,600 – 137,357).

The potential financial impact calculated by multiplying this figure with 3.41 USD (min) and 57 USD (max).
Min Impact = 196,243 tCO2e x 3,41 USD = 669,188.63 USD
Max. Impact = 196,243 tCO2e x 57 USD = 11,185,851 USD

The impact of sales of GHG emission reduction credits (in case the project is developed as a GHG emission reduction project in a voluntary market) is not included in this

calculation to prevent double-counting.

Cost to realize opportunity

1,866,000

Strategy to realize opportunity and explanation of cost calculation

There are technologies that offer over 85% reduction of N2O emissions at Toros Agri Mersin Facility Nitric Acid Plant. With technical consultancy provided by the Nitric Acid Climate Action Group (NACAG), we have completed the feasibility study and selected the most appropriate technology to invest in. The catalyzer installation will be made on two production lines in the Nitric Acid Unit. Commissioning of the catalyst on the first line will be done within seven months after the contract signing. After testing and acceptance of the first line, the process of the second line will be started. The process is planned to be completed within 22 months after the signing of the contract. The contract is targeted to be signed by the end of 2021.

The cost of management covers the cost of installing a new catalyzer system to reduce N2O emissions (USD 1,230,000) and the cost of GHG certification (consultancy, validation & registration fees over a 10-year crediting period-USD 636,000). The planned investment was put in the budget and the budget was approved by Toros Agri Board of Directors.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment

Row 1	Yes, in the next two years	Yes, we intend to include it as a scheduled AGM resolution item	We are currently working on our low-carbon transition plan. When the plan is finalized and published, it will automatically be included as a scheduled resolution item in our Annual General Meetings.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
RCP 4.5	SUMMARY OF THE RESULTS: We have examined the applicable scenarios and considered RCP 4.5, conducted by the IPCC to investigate a 2 degree Celsius global warming scenario, as a realistic scenario for the impacts of climate change in Turkey. According to the IPCC RCP 4.5. Scenario, emissions will peak 2040-2050. Turkey will face a 2 to 3 degrees Celsius increase in mean temperature during 2013-2040 and up to 4 degrees Celsius in later periods. Reductions in mean precipitation are also expected. As all of our overseas operations are construction projects that don't last more than 3 years, the geographical boundary of our scenario analysis is mainly focused on Turkey. For the construction projects, during the design phase, we also include the scenario analysis but those results are not reported here. The time horizons applied are in line with our organizational applications, so we consider short-medium- and long-term effects of climate change according to the related scenarios. HOW THE RESULTS HAVE INFORMED OUR BUSINESS STRATEGY: We consider these impacts especially important in our Chemical Industry & Agricultural Production operations in Turkey. Following the acquisition of Alanar Fruit Company, we started having direct fruit production. Therefore, we are expecting impacts on our direct operations as well as in our value chain as farmers will need to use limited water resources more efficiently. This is why we are investing heavily in special fertilizer products that can be used with modern efficient irrigation methods to avoid excess use of resources.

	We think that a 2 or 3 degrees in Celsius increase in mean temperatures till 2040 can affect our fertilizer production facilities, our customers (farmers) & our orchards. Increasing pressures from NGOs, legal authorities, neighbors & other stakeholders, difficulties in accessing enough & good quality water are taken into consideration after the interpretations of the scenario analysis. The scenario analysis has been conducted qualitatively by Tekfen Holding HSE&Q Coordinatorship & Toros Agri & Tekfen Agri's top managements have been informed about climate-related risks associated with the RCP 4.5 Scenario projections. CASE STUDY OF HOW THE RESULTS DIRECTLY INFLUENCED OUR BUSINESS STRATEGY: Tekfen Agri is buying new orchards & Tekfen Holding asks Tekfen Agri's top management to assess climate change & water stress in the region by using WRI Aqueduct Water Risk Atlas. In addition, during Mergers & Acquisitions works, climate change-related risks & opportunities are also considered. To raise awareness at all levels, we have started to provide training on climate change and water management to our Agri-Industry white-collar employees. As an overall investigation, we are aware that we need to reduce our GHG emissions & optimize/minimize our water consumption according to climate-related scenarios & planning to do a quantitative analysis in the mid-term. Until then, we make efforts to reduce our N2O emissions (constituting around 77.71% of our gross Scope 1 emissions) via an investment approved to install a new catalyzer system enabling up to an 85% reduction in N2O emissions. Another strategic decision influenced by the results of the scenario analysis is a continuation of investments in organic and organomineral fertilizers. We have invested in our 2nd organic fertilizer production facility by acquiring 99.9% shares of Meram Renewable Energy Production, Inc. In 2020 Gonen & Meram plants of Toros Agri have produced 5,529 tons of solid organic fertilizers. We have also continued to work hard in order to conduct marketing activities to support field sales, trigger the consumers' demand & raise awareness in the industry through production trials. We are also aware of more ambitious climate-related scenarios being increasingly supported (RCP 2.6) & in the mid-term, we aim to incorporate these findings both qualitatively & quantitatively on our business strategy and action plan.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	For our products and services, our strategy is influenced by climate-related risks and opportunities which are considered in the short, medium, and long terms (0 to 30 years). Major climate-related scenarios indicate water scarcity as one of the results that is going to be faced. As our Chemical Industry and Agricultural Production Group operations are extremely water dependent on all stages of our value chain, this issue is both a risk and an opportunity for our operations. The risk lies in our upstream and direct operations where we rely on water for the healthy growth of our crops. This risk is assessed to be a long-term risk and is managed through assessing climate change and water stress in the region by using WRI Aqueduct Water Risk Atlas. There are also opportunities that lie on our downstream value chain, where we have the potential to benefit from climate-change-driven innovation opportunities. As an example of a strategic decision driven by climate change is our investments in the specialty fertilizer market. We pioneer climate change adaptation activities related to this market. Water-soluble fertilizers are used with innovative irrigation techniques such as drip irrigation and results in less water use. Therefore, with shifting customer preferences and increasing water scarcity, Toros Agri's recent investment in an R&D Center has enabled us to realize this opportunity. In addition, in the reporting period, as a result of the R&D activities held, the specialty fertilizer portfolio was enriched by the addition of Smart Urea and Smart N21 which are slow-release fertilizers. Studies show that depending on circumstances in cultivation, slow-release fertilizers reduce agricultural greenhouse gas emissions and nitrate pollution in groundwater. Toros Agri pioneered the specialty fertilizer product group in Turkey and continues to have a significant presence in it. The company's operations in this market continued to increase in 2020, with an increase in sales by 40.7% in

		comparison to 2019 and reaching a total of 57,859 tons equivalent to an increase in revenue by USD 4.5 million. We consider the magnitude of this impact to be high, however, the impact may become much more material over the medium to long term if the demand for these products increases.
Supply chain and/or value chain	Yes	According to our climate-related scenario analysis, water scarcity & extreme weather events are some of the main risks for our Agricultural Product Group &Chemical Industry operations in the medium-long term (1-30 years). According to WRI Aqueduct, the water stress levels in Turkey are projected to increase 1.4 to 2 times between 2020 and 2030, which poses a great risk for our value chain. For climate change-related disruptions in our supply and/or value chain, we consider a 10%-20% reduction in our revenues. The adverse effects of climate change can prevent farmers, our most important customers, from continuing their business, which can cause a serious decrease in fertilizer sales. Therefore, the use of correct, timely &sufficient amounts of fertilizers is vital for the profitability of farmers & the productivity of their products. An example of a strategic decision taken in this regard is to raise the awareness of the farmers about the correct use of fertilizers. Trainings are continuously provided to our ultimate customers, farmers, covering a wide range of agricultural topics which in return provides a contribution to economic & quality products in agricultural production through increasing awareness resulting in conscious production applications. The increase in quantity & quality of produce yielded from a unit field, resulting from efficient & correct usage of fertilizers, water & fuel to apply raw materials, contributes to our efforts to enhance our climate change management practices. Toros Agri, with this awareness, has been organizing nationwide “Farmer Training Meetings” continuously since the 1980s, when the company started its operations, to increase quality & contribute to farmer’s wealth & protect the environment. In the fertilizer sector, farmer-training seminars, first & solely applied by Toros Agri, are organized throughout Turkey, in countless cities and districts & open to everyone. In addition to the seminars, thanks to meetings at village cafes and TV

		programs, Toros Agri has reached over hundred thousands of farmers until today. Toros Agri is in close cooperation with regional agricultural organizations in relation to this matter. We also have our Toros Farmer App that shares educational information & recommendations about fertilizers with our registered farmers & distributors.
Investment in R&D	Yes	Our investment strategy in R&D is influenced by climate-related risks and opportunities which are considered in the long term (5 to 30 years). Climate change & water crisis are among the important risks for our Chemical Industry & Agricultural Production Groups. Being prepared for future impacts is important to us. Therefore, we believe that companies that develop products resistant to new conditions in both fertilizer & seed activities will be ahead of their competitors. In order to turn the risks into opportunities, Tekfen gives utmost importance to R&D activities. Both Toros Agri & Tekfen Agri have invested in R&D centers. As an example of a strategic decision influenced by climate-related risks & opportunities, our Chemical Industry Group company Toros Agri has established an R&D facility in Mersin. The facility's aim is to increase our ability to develop new & more efficient products while being the first fertilizer R&D Centre in Turkey. This strategic decision is a reaction to turn what appears to be a risk into an opportunity in the long term. By investing in R&D we are diversifying our product range so that we can present more efficient products to reduce the use of strategic resources. This will provide us new products so that we can increase our share in the market. As described in Opp2 the financial impact of this opportunity is estimated between 2.6 to 4.2 million USD. Engineering & Contracting Group company Tekfen Engineering performs R&D activities on Carbon Capture and Storage and Hi-Flex project, which is a tower type concentrated solar power plant that will supply process steam & reduce GHG emissions in pasta production. We've also signed an agreement with TUBITAK, to develop projects on sustainability-related issues including waste management, water treatment technologies & alternative energy technologies.

		Tekfen Ventures supports Entrepreneurship by investing in startups that focus on projects that have beneficial results on Climate Change/Water Security. Two such examples are Pivotbio & Phospholutions. Pivotbio uses microbes' natural ability to convert nitrogen from the air to meet crops' daily nitrogen needs. Phospholutions increases the efficiency of global phosphorus use that reduce phosphorus loads entering the water systems ultimately decreases eutrophication that damages the waterways.
Operations	Yes	For our operations, climate-related risks like emerging regulation (mainly Turkish ETS & EU CBA) have influenced our strategy, to focus more on reducing our GHG emissions. The time horizon covered for these types of risks is short to medium term (0-5 years). While risks like chronic physical impacts of climate change cover a longer time horizon (0-30 years). These risks especially impacted our strategy in Agricultural Production & Chemical Production Group Companies. Some examples of major strategic decisions that were influenced by climate-related risks & opportunities are: • Implementation of ISO 50001 Energy Management System in Toros Agri production facilities. All of these facilities are now ISO 50001 certified which helps us to manage our energy consumption in the best possible way. • Tekfen Tower will implement ISO 50001 Energy Management System until 2023, this decision was led by a current legal & regulatory compliance risk, in order to comply with the requirements of Article 8 of 'Regulation on Increasing Efficiency in the Use of Energy Resources and Energy. • As a mitigation activity, we are working intensely in reducing our N2O emissions which make up approximately 77.71% of our Gross Global Scope 1 GHG emissions. This strategic decision is influenced by Risk 2, which is the risk of increasing operating costs due to emerging regulations of an Emissions Trading System in Turkey & Carbon Border Adjustment in the EU. Details of this risk are given under section C2.3a of this report. To reduce our N2O emissions one of the most substantial strategic decisions we made was

		to invest in a catalyzer technology that will reduce our N2O emissions by 85%. The cost of installation of this system is calculated to be around 1,230,000 USD, whereas the potential financial impact of this risk is between 1.92 to 28.89 Million USD which is a very high impact according to our risk impact scale. • Moreover, we have also established a new operational unit for renewable energy services under Tekfen Construction & Tekfen Engineering. Tekfen Engineering is working on a Hi-Flex Project which is a tower-type concentrated solar power plant. During the Hi-Flex project, the worldwide first complete pre-commercial system using particle technology is being developed. • Tekfen Agri has installed hail nets, meteorological stations & humidity sensors in the orchards.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Assets	Revenues: Water-soluble fertilizers are used with innovative irrigation techniques such as drip irrigation and results in less water use. Therefore, with shifting customer preferences and increasing water scarcity, Toros Agri's recent investment in an R&D Center has enabled us to create an opportunity. For example, the specialty fertilizer portfolio was enriched by the addition of Toros Organomix (worm castings), CalMag, two new entries with new ingredients in the water-soluble NPK market (Nutriactive and Greenfeed), and FloraTech (lawn fertilizer) both with lower water needs and carbon footprint. Toros Agri pioneered the specialty fertilizer product group in Turkey and continues to have a significant presence in it. The company's operations in this market continued to increase in 2020, with an increase in sales by 40.7% in comparison to 2019 and reaching a total of 57,859 tons equivalent to an increase in revenue by USD 4.5 million. We consider the magnitude of this impact to be high. This impact is reflected in our financial planning, and it is assessed to become much more material over medium to long term time horizons (1-30 years) if the demand for these products increases.

		Direct Costs: Climate-related water impacts increase the cost of freshwater and impact our production costs. In 2020 average water price for the workplaces in the countryside was 0.39 USD/m3 and the average water price for the workplace in the city was 1.56 USD/m3. Any increase in water prices will impact our bottom line as such. In the long term (5-30 years) we are expecting water prices to rise due to water scarcity. Indirect Costs: In the short term (0-1 years), our Continuous Emissions Monitoring System (CEMS) established in our fertilizer production facilities by government-mandated MRV regulation has increased our operating costs by an average of USD 30,000 per year. We consider the magnitude of this impact to be low, however, it may become higher over the medium to long term (1-30 years) with expected new requirements to be added to the regulatory requirements. The new requirements may include a possible emissions trading system, which may result in a financial impact between 1.71 to 28.52 Million USD. The potential impact figure is calculated using two different assumptions on the ETS allowance price and annual GHG emissions in our MRV regulated Agri-Industry operations. Capital Expenditures: Climate change-related risks and opportunities are directly factored into our financial planning process for capital expenditures. As part of our highest efforts to continuously work on developing new and more environmentally friendly products, we have invested in an R&D Center in Mersin as part of our fertilizer production practices. Having received its Ministry of Industry and Technology license in 2017, the Toros Agri Mersin Plant's R&D Center began working in the same year. 2018 was a year in which substantial progress was made by engaging in scientific efforts to meet the agricultural sector's demands and needs and giving priority to the development of new products that will help improve agricultural productivity. The magnitude of this impact is still lower than identified substantive financial impact threshold, but we may experience higher impacts in the medium to long term (1-30 years). Capital Allocation: Climate change-related risks and opportunities also influenced our financial planning in terms of capital allocation. In our Agri Industry operations, our Mersin Plant has N2O emissions which comprise the majority share of our Scope 1 GHG emissions. The risk of non-compliance or fines due to an emerging regulation

		similar to EU-ETS has caused us to allocate extra capital to invest in a catalyzer system, with the aim of drastically reducing our N2O emissions which will have an initial investment of about USD 1,230,000 already approved by our Board of Directors. This catalyzer system investment is also seen as an opportunity, as we may be able to sell our allowances. We may experience high financial impacts in the medium to long term (1-30 years). Acquisitions and Divestments: One of the most effective options to combat climate change and manage GHG emissions is to invest in renewable energy resources. Our business has been impacted by this opportunity as a result of its proactive approach. Toros Agri has acquired a 70% stake in organic fertilizer manufacturer Gonen Renewable Energy and later on 99.9% share of Meram Renewable Energy with the aim of becoming a major player in the organic and organomineral fertilizer markets. Both facilities are completely environmentally friendly with their zero liquid waste discharge, advanced flue gas treatment, and heat recovery systems. In addition to the economic value generated by the electricity generation and organic fertilizer they produce, the plants reduce GHG emissions by around 86,728 tons of carbon dioxide per year and perform a highly effective role in the resolution of their area's environmental pollution issues. Gonen project is validated under Gold Standard and Meram's validation process is still ongoing. Overall, we consider the magnitude of this impact to be medium to long term (1-30 years). Assets: In 2020 heat waves, hail storms and heavy rainfall has resulted in a loss of expected yield in our orchards Tekfen Agri as a stone fruit producer (such as apricot and cherry) which are vulnerable to extreme weather conditions. Therefore, if the severity of extreme weather events such as hail, cyclone, increase, we may then face a risk of reduced output as our product will be adversely affected both quality and quantity-wise, leading to revenue loss. In 2020 the projected crop yield of the orchards was 2,588 tons, but due to extreme weather events like hail storms and heavy rains, the crop yield dropped to 1,911 tons which resulted in a monetary loss of about 950,000 USD. The magnitude of this impact is higher than identified substantive financial impact threshold, and this impact may even be higher in the medium and long-term with the increasing impacts of climate change. Therefore, these incidents are influencing our short, medium, and long-term financial planning (0-30 years).

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

In recent years, Tekfen has started to officially integrate climate change into its strategy. As a Company, we have been collecting information on climate change and reporting internally following the CDP criteria since 2010. Below are some examples of how we monitored and acted against the impact of climate change as a result of integration into our business objectives and strategy.
New structures have been established in the Holding for dealing with issues such as sustainable growth, as environmental issues are becoming increasingly mainstream. This is one of the indicators that the Company is beginning to take strategic decisions into climate change and related issues. For example, The Management Review Meeting, attended by the Senior Management at Tekfen Construction, was held as "Carbon Neutral" to draw attention to climate change in 2016 across the Company. At Tekfen Holding level, due to the increased risk, climate change issues bring to the business environment. Holding has started to closely monitor the environmental performance of Tekfen Group Companies.

A big step that is a result of considering the impacts of climate change, Tekfen decided to start renewable energy contracting due to the expected contraction in oil & gas contracting activities as a result of global aims to mitigate climate change in the EPC sector. as part of our short-term strategy transformation, a separate department specializing in contracting renewable energy projects was found in Tekfen Construction and Tekfen Engineering.

Minimizing the consumption of energy and natural resources and reducing waste by encouraging recycling/reuse is among Tekfen principles. Therefore, we implement numerous projects in our production facilities for energy efficiency. As a result of this principle, Toros Agri's Mersin Facility has won the "Energy Efficient Industrial Facility (EVET)" award given to facilities that have the highest "energy intensity reduction ratio" by the Renewable Energy General Directorate of the Ministry of Energy and Natural Resources. Our Mersin Facility was able to reduce its energy intensity by 33.3% in the 2013-2015 period against reference energy intensity (REY) in 2008-2012 and win first place in the Chemicals and Production of Chemicals sub-sector. Toros Agri has also implemented an Energy Management System in parallel to ISO 50001

In the reporting year, the most important decision on climate-action led by our Board Chairman was the decision to become Net-Zero and the preparation of a Low-Carbon Transition plan to act as a roadmap on our journey to Net-Zero.
Toros Agri Board of Directors has also approved the implementation of a Catalyzer unit in our Toros Agri Mersin Fertilizer Production Plant which will significantly reduce our GHG emissions (especially N2O) As a result of efforts made by our Working Group, together with the support received from NACAG (Nitric Acid Climate Action Group) and the manufacturers of N2O catalyzers, we have approved an investment of over USD 1,230,000 on the new catalyzer system.

For our contracting operations, we make sure our contracting portfolio is diversified to stay ahead of our competition by developing new green business opportunities and adapting to the changing business and physical environment. An example of this is our decision to enter the renewable energy contracting field.

Starting with the management restructuring process in 2015, Tekfen has set major targets for renewable energy and energy production from waste for the medium term. In the long term, Tekfen is planning to become one of the major components of the eco-economy. Toros Agri has acquired 70% shares in organic fertilizer manufacturer Gonen Energy and 99.9% shares of Meram Energy. Both facilities work with the principle of zero liquid discharge, advanced flue gas purification, and heat recovery systems to ensure that the facilities respect the environment in every possible way. In addition to the economic value generated by the electricity generation and organic fertilizer production, the plants eliminate 1,170 tons of organic waste per day, thus reducing GHG emissions by around 86,728 tons CO2 per year. Both facilities perform a highly effective role in the resolution of the area's environmental pollution issues. The facilities have a combined electricity production capacity of 9.62 MW; and a combined production capacity of 115,000 tons of solid organic & organomineral, and liquid organic fertilizers.

Buildings are a major source of energy consumption and emissions. Tekfen's real estate projects in Turkey are LEED-certified following the actions that were agreed to be implemented in Turkey’s National Climate Change Strategy (2010-2023). Tekfen is also one of the founders of CEDBİK (Turkish Green Building Association), emphasizing the importance Tekfen puts on environmentally friendly buildings and climate change. Tekfen is also one of the founders of TEMA Foundation (Turkish Foundation for Combating Soil Erosion, for Reforesting and the Protection of Natural Habitats) and has integrated environmental issues into its core business. Considering the activities described above, the value that Tekfen gives to nature is apparent.

Tekfen has also signed a 5-year agreement with TUBITAK to develop sustainability-related projects including waste management, water treatment technologies & alternative energy technologies.

In its capacity as Turkey’s biggest privately-owned agri-industrial concern, in 2017 Toros Agri authorized a first in the country’s fertilizer-manufacturing industry by opening an R&D center at its Mersin plant. This plant has been awarded Ministry of Industry and Technology certification as the first center of its kind in Turkey devoted to plant nutrition and nutrients. The center’s goals include developing new products that will further diversify Toros Agri’s plant nutrients portfolio as well as addressing such issues as improving existing products, developing production processes, optimization, production-related energy conservation, and reducing environmental impact.

Tekfen Agri has been at the fore of its sector by allocating 8.5% of its revenues to research and product development in 2020. Digital agriculture practices that save water and energy are among Tekfen Agri's strategic priorities.

A total of 10 projects, five projects within the scope of crop seed operations and breeding activities, four projects within the scope of techno-agriculture R&D activities, and one project in

the ‘Other’ category, were carried out in Agripark in 2020. Within the scope of these projects, collaborations with Sabancı University Nanotechnology Research and Application Centre, Akdeniz University Technology Transfer Office, Çukurova University, and TAGEM (General Directorate of Agricultural Researches and Policies) continued.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2019

Covered emissions in base year (metric tons CO2e)

1,056,262

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

15

Covered emissions in target year (metric tons CO2e) [auto-calculated]

897,822.7

Covered emissions in reporting year (metric tons CO2e)

1,087,617

% of target achieved [auto-calculated]

-19.7899132349

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

The target covers all our gross-global Scope1 and Scope 2 GHG emissions.
This target has been set in line with the Well Below 2 Degrees Scenario. We target a reduction of 15 % from our gross-global Scope1 and Scope 2 GHG emissions, over a period of 6 years, which translates to a 2.50 % reduction per year on average. The target is also checked using the target setting tool of SBTi, which resulted in the same reduction figure to be in line with the IEA WB2C using the absolute contraction approach.
Although currently, our GHG emissions have increased by 2.97% compared to the base year of this target, keeping our investment plans in mind, we still believe we can reach this target until the target year.

Target reference number

Abs 2

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2019

Covered emissions in base year (metric tons CO2e)

1,056,262

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2037

Targeted reduction from base year (%)

40.2

Covered emissions in target year (metric tons CO2e) [auto-calculated]

631,644.676

Covered emissions in reporting year (metric tons CO2e)

1,087,617

% of target achieved [auto-calculated]

-7.3842959832

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

The target covers all our gross-global Scope1 and Scope 2 GHG emissions.

This target has been set in line with the Well Below 2 Degrees Scenario. We target a reduction of 40.2 % from our gross-global Scope1 and Scope 2 GHG emissions, over a period of 18 years. This target is in line with our 1st Target of reducing our GHG emissions by 15% until 2025, which translates to a 2.50 % reduction per year on average. After 2025 we are aiming to reduce our GHG emissions by 2.1% per year, which makes up an extra 25.2% absolute reduction from 2019 levels. Both of these targets combined, we are aiming a total of 40.2% reduction over a period of 18 years.

Although currently, our GHG emissions have increased by 2.97% compared to the base year of this target, keeping our investment plans in mind, we still believe we can reach this target until the target year.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2019

Target coverage
Site/facility

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Production

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)

Base year
2019

Figure or percentage in base year
226,652

Target year
2020

Figure or percentage in target year
231,185

Figure or percentage in reporting year
250,106

% of target achieved [auto-calculated]
517.405691595

Target status in reporting year
Achieved

Is this target part of an emissions target?
This target is also a part of our absolute target to reduce Scope 1+Scope 2 GHG emissions by 15% until 2025 (Abs 1)

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain (including target coverage)
We had a target to increase our renewable energy generation by 2% with respect to the previous year in Samsun and Mersin facilities of Toros Agri and in Gonen Renewable Energy. We have exceeded this target and generated 10.35% more renewable energy in comparison to our generation figure in 2019.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2019

Target coverage
Site/facility

Target type: absolute or intensity
Intensity

Target type: category & Metric (target numerator if reporting an intensity target)
Fossil fuel reduction target
cubic meters of natural gas consumed

Target denominator (intensity targets only)
metric ton of product

Base year
2019

Figure or percentage in base year

6.52

Target year

2020

Figure or percentage in target year

6.39

Figure or percentage in reporting year

5.86

% of target achieved [auto-calculated]

507.6923076923

Target status in reporting year

Achieved

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

We have a target of reducing m3 of natural gas consumed per ton of NPK product by 2 % in Toros Agri's Samsun Plant. This year as the plant worked full capacity, we have exceeded our target and reduced this figure by 10.12%.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	44	2,295
To be implemented*	11	642,375
Implementation commenced*	10	12,923
Implemented*	8	6,615
Not to be implemented	1	950

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type
Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
5,710

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
836,313

Investment required (unit currency – as specified in C0.4)
1,350

Payback period
<1 year

Estimated lifetime of the initiative
11-15 years

Comment
We have optimized the process in DAP unit in our Toros Agri Samsun Plant which resulted in over 9 million kWh of Natural gas savings.

Initiative category & Initiative type
Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
555

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

74,001

Investment required (unit currency – as specified in C0.4)

95,361

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

3 projects in Toros Agri Mersin, Ceyhan and Samsun plants optimizing processes resulted in an annual electiricty saving of 911,149 kWh.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

36

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

6,462

Investment required (unit currency – as specified in C0.4)

4,539

Payback period

<1 year

Estimated lifetime of the initiative

11-15 years

Comment

In one of the facilities of Tekfen Construction, diesel heating system was replaced with lower-emission LPG heating system resulting in 13,500 liters of Diesel oil savings per annum.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

290

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

85,834

Investment required (unit currency – as specified in C0.4)

151,151

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

Old and less efficient lighting equipment used in one of the facilities of Tekfen Construction was replaced with more efficient LED lighting fixtures resulting in an annual electricity savings of 630,061kWh.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

24

Scope(s)

Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

4,133

Investment required (unit currency – as specified in C0.4)

36,578

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

In both Tekfen Tower and Tekfen Holding due to some maintenance activities, the HVAC systems become more efficient saving 42,146 kWh of electricity per annum.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Nitrogen oxides treatment unit (DENOX) and Continuous Emissions Monitoring System (CEMS) installations at our fertilizer production facilities are regulatory mandated. As per Turkish GHG MRV Regulation, third-party companies verify our fertilizer plants' GHG emissions and report to the Ministry of Environment and Urbanization. Therefore, the necessary budget for emissions reduction/monitoring initiatives to comply with regulations is always allocated as a priority.
Dedicated budget for other emissions reduction activities	Toros Agri Board of Directors has approved an investment budget for large N2O reduction systems in order to avoid any liabilities the predicted future ETS/Carbon Tax system in Turkey may cause. As the fertilizer production-related N2O GHG emissions constitute the vast majority of our gross Scope 1&2 emissions, any measure to drastically reduce those emissions are constantly investigated by our Top Management.
Partnering with governments on technology development	Nitric Acid Climate Action Group (NACAG), affiliated with the German Government, is supporting us in considering options for installing an N2O reduction system. We are receiving know-how support and may receive potential financial support from them. The Turkish Government is also supporting this initiative. As can be seen in this example, Tekfen Holding and its Group Companies are open to and actively seeking collaboration opportunities for know-how sharing and realizing emissions/energy reduction initiatives. In 2020 we have also signed a 5-year agreement with The Scientific and Technological Research Council of Turkey (TUBITAK), to develop projects. This agreement also includes research and development of projects that will reduce our direct and value chain GHG emissions

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

According to a study published by IFA (International Fertilizers Association) titled “The Role of Fertilizers in Climate-Smart Agriculture":

Soils can store up to 50-300 tonnes of carbon per hectare, which is equivalent to 180-1100 tonnes of carbon dioxide (CO2), and some 89% of agriculture's future mitigation potential is based on soil 2 carbon sequestration (IPCC, 2007). Carbon sequestration in cultivated soil can be increased by reducing tillage, adding organic amendments, using cover crops, and adding appropriate mineral nutrients for biomass production.

Increased soil organic matter improves soil health and productivity resulting in more CO2 capture from the atmosphere.

Fertilizers, when used following site- and crop-specific Best Management Practices in the 4 areas of nutrient management (source, rate, time, and place) are important for adaptation to and mitigation against climate change.

Sustainable intensification of agricultural productivity on arable land not only promotes global food security but also reduces deforestation and loss of peatlands, wetlands, grassland, which, combined make up some 5 Gt CO -eq annually or 10% of global GHG emissions (AR5, chapt. 11).

Toros Agri implements nutrient stewardship programs and fertilizer best management practices (FBMPs) in order to encourage farmers to use fertilizers in an effective and efficient way.

To increase awareness on the correct application of fertilizers we are using several methods that include:
• Toros farmer app
• One-on-one meetings with the Toros Agri Distributors and authorized dealers
• Presentations / Meetings / Joining Agricultural Expo’s

• Giving training to farmers

By the end of 2020, 11,751 plantations belonging to 10,674 farmers were included in the Toros Farmer database. When the number of distributors (1,264) and authorized dealers are taken into consideration a total of 11,938 members actively use this app.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

IFA “Role of Fertilizers in Smart Agriculture”

% revenue from low carbon product(s) in the reporting year

33.1

Comment

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

1,052,536.49

Comment

Scope 2 (location-based)

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

45,049.57

Comment

Scope 2 (market-based)

Base year start
January 1, 2016

Base year end
December 31, 2016

Base year emissions (metric tons CO2e)
45,049.57

Comment
As energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure. However, other than I-REC certificates, other market-based data like supplier data or residual mix factors are still not available in Turkey and in other countries that we work in. Therefore, we have used the location-based results as a proxy since a market-based result cannot be calculated.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
1,054,641.09

Start date
January 1, 2020

End date

December 31, 2020

Comment

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
1,015,148.66

Start date
January 1, 2019

End date
December 31, 2019

Comment
There is no change in our Scope 1 GHG emissions for the previous reporting year. We are submitting past year data in order to present a market-based Scope 2 figure because 2019 is the base year for our targets.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
As energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
32,976.1

Scope 2, market-based (if applicable)
32,976.1

Start date

January 1, 2020

End date

December 31, 2020

Comment

As energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure.

However, other than I-REC certificates, other market-based data like supplier data or residual mix factors are still not available in Turkey and in other countries that we work in. Therefore, we have used the location-based results as a proxy since a market-based result cannot be calculated.

Past year 1

Scope 2, location-based

41,113.76

Scope 2, market-based (if applicable)

41,113.76

Start date

January 1, 2019

End date

December 31, 2019

Comment

There are no changes in the scope 2 GHG emission calculations for the previous reporting year, however, as energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure.

However, other than I-REC certificates, other market-based data like supplier data or residual mix factors are still not available in Turkey and in other countries that we work in. Therefore, we have used the location-based results as a proxy since the market-based result cannot be calculated.

We wanted to report 2019 Market-based figure as the base year of our targets is 2019 and the Scope 2 figure used in the targets is market-based.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,063,109.98

Emissions calculation methodology

Activity data:
The activity data collected consists of the amount of ammonia purchased by Toros Agri, the consumed amounts of construction materials by Tekfen Construction, and Tekfen Manufacturing.
The activity data is collected in tons. All of the consumed materials are assumed to be comprised of primary materials.

Emission Factors:
For Toros Agri: Ammonia emission factors are taken from Fertilizers Europe online calculator. Emission factors are selected according to the origin of Ammonia purchased as the fossil fuels used for the production differ across different regions of the world.
For Tekfen Construction and Tekfen Manufacturing: The emission factors are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users" Material Use tab. The emission factors for primary materials are used. According to DEFRA's definitions, these emission factors cover the extraction, primary processing, manufacturing, and transporting materials to the point of sale.
For the emission factors published by DEFRA, the GWPs used in the calculation of CO2e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We mainly focus on the purchased ammonia for fertilizer production and construction material as these are our biggest operations and therefore most of our Scope 3-Purchased Goods and Services impact lies under the Chemical Industry and Engineering& Contracting Group's site/ facility activities. Our Scope 3 GHG Emissions from this category decreased by 6.26% due to the reduction in purchases of Tekfen

Construction. This is a direct result of the finalization of some of the projects in Tekfen Construction.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

During the reporting year, there were no significant capital goods purchases, therefore this category is not relevant for the reporting year. Emissions from the use of capital goods are accounted for in Scope 1.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

170,133.44

Emissions calculation methodology

Activity data:
The following activity data are included in the fuel and energy-related Scope 3 emissions:
1. For the calculation of upstream emissions of purchased fuels (well to tank -WTT- emissions), the fossil fuel consumption figures that were used for the calculation of stationary and mobile combustion emissions under Scope 1 are used.
2. For upstream emissions of purchased electricity and transmission & distribution losses, the electricity consumption figures used to calculate the Scope 2 emissions are used.
3. For the generation of purchased electricity that is sold to end-users, as this category only applies to Toros Agri, the amount of electricity they have sold to end users is collected.

Emission Factors:
The emission factors for calculation of all fuel and energy-related activities including WTT emissions of fossil fuels and electricity and T&D losses are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users" WTT fuels and WTT UK&Overseas Electricity tab. According to DEFRA's definitions, these emission factors include Scope 3 emissions associated with extraction, refining, and transportation of the raw fuel sources to an organization.
For the emission factors published by DEFRA, the GWPs used in the calculation of CO2e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Fuel consumption and electricity data are obtained from supplier invoices or waybills. Our Scope 3 GHG Emissions from this category have increased by 15.95% due to an increase in fuel consumption of the projects of Tekfen Construction, as they are located in geographically challenging conditions.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

92,526.27

Emissions calculation methodology

Activity data:
Our main operations where there is significant amount of transportation and distribution activities are Toros Agri and Tekfen Agri. The means of transport used are ground (HGVs and Refrigerated HGVs), Aircraft Carriers, and Marine Vessels. The data collected are average travel distances for each shipment and average load for each shipment.

Emission Factors:
The emission factors for calculation of transportation and distribution activities are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users" Freighting Goods tab. For ground transportation, the vehicles are assumed to be 100% Laden.
Most of the transportation activities are reported under the upstream category because according to GHG Protocol Scope 3 Standard the transportation services which are purchased by the reporting company shall be reported under the Upstream Transportation and distribution category (even if it is downstream transportation of products to end-users).
Transportation activities that are done by our own vehicles are reported under Scope 1.
For the emission factors published by DEFRA, the GWPs used in the calculation of CO2e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

100% of the average travel distances are obtained from the transportation service provider. The average load for each shipment is taken from internal records of our weighbridges. Our Scope 3 GHG Emissions from this category have decreased by 15.25%. There are two main reasons behind this decrease:
1. Our customers arranged the transportation services of the goods that they have purchased, therefore some transportation-related emissions which were previously reported under this category are now reported under category 9.
2. Some of the reduction is due to the reduction in transport activities of Toros Agri.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

16,543.96

Emissions calculation methodology

Activity data:
The activity data for the waste generated in our operations are collected according to the waste type and method of disposal (i.e. landfill, recycling, etc.) in tons.

Emission Factors:
The emission factors for calculation of emissions from the waste generated in operations are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users" Waste tab.
For the emission factors published by DEFRA, the GWPs used in the calculation of CO2e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have Waste Management Systems in all of the sites/ facilities that are under our operational control.

All the waste resulting from our activities is included in our calculations. The management of the waste resulting from the operations of our subcontractors is also performed by us. Therefore, all the waste info including the waste generated in the operations of our subcontractors is included in this calculation.

When compared to the previous reporting period our Scope 3 GHG emissions from the disposal of waste generated in our operations have reduced by 65.82% due to the

finalization of some projects of Tekfen Construction. In addition, Tekfen Group Companies have adopted a waste management philosophy that includes the prevention of waste, the more efficient use of resources, the prevention or minimization of waste generation by reviewing the causes of waste generation, and separate collection and recycling of the waste at its source. In this context, Toros Agri Ceyhan Plant, Toros Agri Highway Facilities, Tekfen Agri Adana Agripark, Tekfen Agri Nevşehir Warehouse, and Alanar Fruit Alaşehir Facility, which fulfilled the responsibilities stated in the “Zero Waste Regulation” that entered into force in 2019, were all awarded the “Basic Level Zero Waste Certificate” in 2020.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

548.9

Emissions calculation methodology

Activity Data:
We obtain flight information from our travel agency. (Departure and destination ports, flight class, number of trips). We then use International Civil Aviation Organisation (ICAO) website to calculate flight distance. This category includes business flight data of Tekfen employees. No other means of transport is used for business travel. Some employees use company cars for travel and these figures are reported under Scope 1 emissions.

Emission Factors:
The emission factors for calculation of emissions from business travel are taken from DEFRA’s “Conversion Factors 2020 Full Set for Advanced Users” Business Travel-air tab. The EFs with radiative forcing are used for the calculations.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

100% of the flight information is obtained from our travel agency. When compared to the previous reporting period our Scope 3 GHG emissions from Business Travels have reduced by 76.86% due to the travel restrictions because of the Covid-19 Pandemic.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,441.13

Emissions calculation methodology

Activity Data:
We obtain employee commuting distance information from our service providers as activity data.

Emission Factors:
The emission factors for calculation of emissions from the waste generated in operations are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users".
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

100% of employee commuting distances are received from service providers.

When compared to the previous reporting period, our Scope 3 GHG emissions from employee commuting have reduced by 72.84%. Due to the Covid-19 Pandemic, our employees have started to work from home, this is why our GHG emissions from employee commuting have decreased significantly.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

As we are using the Operational Control method to compile our GHG Inventory, the GHG emissions that result from the operation of leased assets are reported under Scope 1 and Scope 2 emissions, because they are controlled by TEKFEN. Therefore, Scope 3 emissions from upstream leased assets are not relevant to our operations.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

6,182.28

Emissions calculation methodology

Activity data:
Our main operations where there is significant amount of transportation and distribution activities are Toros Agri and Tekfen Agri. The means of transport used are ground (HGVs) and Marine Vessels. The data collected are average travel distances for each shipment and average load for each shipment.

Emission Factors:
The emission factors for calculation of transportation and distribution activities are taken from DEFRA's "Conversion Factors 2020 Full Set for Advanced Users" Freighting Goods tab. For ground transportation, the vehicles are assumed to be 100% Laden.
The transportation services that are not purchased by Tekfen are reported under this category. Most of the transportation activities are reported under the upstream category because according to GHG Protocol Scope 3 Standard the transportation services which are purchased by the reporting company shall be reported under the Upstream Transportation and distribution category (even if it is downstream transportation of products to end-users).
Transportation activities that are done by our own vehicles are reported under Scope 1.
For the emission factors published by DEFRA, the GWPs used in the calculation of CO2e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period.
The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

100% of the average travel distances are obtained from the transportation service provider. The average load for each shipment is taken from internal records of our weighbridges. The GHG emissions from this category have increased by 9.85 % because of the change in delivery terms. Our customers arranged the transportation services of the goods that they have purchased, therefore some transportation-related emissions which were previously reported under category 4 are now reported under this category.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

We do not produce or sell products that are later processed. Therefore, this category is not relevant for our business.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,473,113.51

Emissions calculation methodology

GHG emissions from synthetic fertilizers consist of direct and indirect nitrous oxide (N2O) emissions from nitrogen (N) added to agricultural soils by farmers. Specifically, N2O is produced by microbial processes of nitrification and de-nitrification, taking place on the addition site (direct emissions), and after volatilization/re-deposition and leaching processes (indirect emissions). For the calculation of the GHG emissions resulting from the use of our fertilizers, we use “Estimating Greenhouse Gas Emissions in Agriculture” document published by Food and Agriculture Organization of the United Nations (FAO).

This category also includes the use of fossil fuels sold from our gas stations.

Activity data:
As activity data, we use the amount of Nitrogen-based fertilizers sold and the % of Nitrogen in the sold products.

For the fossil fuels that are sold in our gas stations, we obtain a database of our sold products from our petrol stations and organized industrial zone.

Emission Factors:
The Global EF default values are taken from IPCC, 2006, Vol 4, Ch.11 Table 11.1.
We apply IPCC default fuel emission factors and DEFRA 2020 conversion factors for calculating Scope 3 emissions under this category.
For the use of sold fertilizers, the calculation was conducted according to the methodology outlined in “Estimating Greenhouse Gas Emissions in Agriculture” published by Food and Agriculture Organization of the United Nations.
For the use of fossil fuels sold, the calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Our Scope 3 GHG emissions from the use of sold products have increased by 4,16% due to the 5.69% increase in production.
This increase is mainly due to Samsun plant of Toros Agri working in full capacity, whereas in the previous year this plant was offline for 1 month for maintenance purposes.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

In Tekfen and Toros Agri our main products are fertilizers and fresh fruits, both of which don't require any end of life treatment. The impact of our fertilizers is reported under the category "Use of Sold Products".

Our construction projects also have a very long life-span therefore the end-of-life treatment for these projects is also not deemed relevant for our GHG inventory.

Downstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3,937.08

Emissions calculation methodology

Activity Data:
The electricity and natural gas consumption figures for our downstream leased assets are obtained as activity data. This category does not include GHG emissions resulting from the use of electricity sold to 3rd parties, which is reported under Category 3 as per GHG Protocol Corporate Value Chain Standard.

Emission Factors:
The GHG emission factors published by IEA and IPCC are used to calculate the GHG emissions from our downstream leased assets. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Our Scope 3 GHG emissions resulting from downstream leased assets have reduced by 1.15% due to Covid-19.

Franchises

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7,145.34

Emissions calculation methodology

Activity Data:
The electricity consumption figures of our franchises are collected in MWh directly from our franchisors (Toros Agri's authorized dealers and sellers).

Emission Factors:
The GHG emission factors published by IEA are used to calculate the GHG emissions from our franchises. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Our dealers are considered as franchises. The previous reporting year was our first year reporting this category, and in the current reporting year, we were able to collect more data from our dealers. Therefore, our GHG emissions from this category have increased by 15.73%.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Emissions from investments are not relevant. After an investment or an acquisition, we include the relevant emissions under Scope 1 and 2 Reporting boundary. Therefore, we do not currently have Scope 3 category emissions under this category. However, this will be considered if such a case takes place in the future.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

There are no additional sources of Scope 3 emissions from our operations.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

There are no additional sources of Scope 3 emissions from our operations.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	13,675.47	The biogenic carbon data comes from Gonen Renewable Energy's biomass operations. All the raw materials used in the plant are obtained from cattle and chicken farms, agricultural operations, and food factories in the vicinity of the plant. The biomass obtained is treated via anaerobic digestion process. The resulting biogas is utilized to produce heat and electricity. GHG emissions related to biogenic carbon are calculated using DEFRA out-of-scope emission factors for biogas and biomethane. The amount of biogas and methane produced in the reporting period is multiplied by these emission factors.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00068063

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1,087,617.19

Metric denominator

unit total revenue

Metric denominator: Unit total

1,597,953,682

Scope 2 figure used

Location-based

% change from previous year

58.41

Direction of change

Increased

Reason for change

Our total Scope 1 and Scope 2 emissions have increased by 2.97%. On the other hand, emission intensity (per revenue) has increased by 58.41%.

The main reason for the stated 58.41% increase in the intensity figure is the 35% reduction in our revenues (denominator). As the value in the denominator decreased, the intensity figure also increased.

The main reason for the 35% reduction in revenue is the decrease in the revenue of the Engineering& Contracting Group. While the Contracting Group accounts for 60.6% of the total revenue, the Group only accounts for 19.82% of our Scope 1 and Scope 2 emissions.

Another reason for the decrease in revenues is 24% devaluation of Turkish Lira against USD.

Our Total Scope 1 + Scope 2 GHG emissions have also increased by 2.97% due to an increase in fuel consumption figures of the projects of Tekfen Construction.

All of these changes combined resulted in a 58.41 % increase in the intensity figure.

Intensity figure

58.97

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1,087,617.19

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

18,444

Scope 2 figure used

Location-based

% change from previous year

4.57

Direction of change

Decreased

Reason for change

Although our GHG emissions have increased by 2.97%, the number of our Full-Time Employees has also increased by 7.90%. This resulted in a 4.57% decrease in our GHG emissions per FTE.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	227,065.31	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	822,241.9	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	271.87	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	5,062.01	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	848,098.69
Qatar	56,735.73
Kazakhstan	8,625.83

Azerbaijan	207.12
Saudi Arabia	137,418.33
Iraq	188.68
Russian Federation	3,366.71

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Tekfen Holding	113.63
Engineering and Contracting	209,837.15
Chemical Industry	836,505.53
Agricultural Production	8,122.13
Services and Investment	62.66

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Chemicals production activities	835,720.42	Scope 1 GHG emissions resulting from fertilizer production in our Toros Agri Mersin, Samsun, and Ceyhan plants.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat,	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2

			steam or cooling (MWh)	market-based approach (MWh)
Turkey [1]	30,247.52	30,247.52	65,612.83	0
Qatar [2]	906.23	906.23	1,864.66	0
Kazakhstan [3]	0	0	0	0
Azerbaijan [4]	483.09	483.09	989.94	0
Saudi Arabia [5]	1,306.85	1,306.85	1,843.23	0
Iraq [6]	0	0	0	0
Russian Federation [7]	32.42	32.42	92.49	0

[1] As energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure.

However, other than I-REC certificates, other market-based data like supplier data or residual mix factors are still not available in Turkey and in other countries that we work in. Therefore, we have used the location-based results as a proxy since a market- based result cannot be calculated.

[2] We have used the location-based results as a proxy since a market- based result cannot be calculated.

[3] We have used the location-based results as a proxy since a market- based result cannot be calculated.

[4] We have used the location-based results as a proxy since a market- based result cannot be calculated.

[5] We have used the location-based results as a proxy since a market- based result cannot be calculated.

[6] We have used the location-based results as a proxy since a market- based result cannot be calculated.

[7] We have used the location-based results as a proxy since a market- based result cannot be calculated.

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Tekfen Holding	321.55	321.55
Engineering and Contracting	5,735.2	5,735.2
Chemical Industry	22,779.19	22,779.19
Agricultural Production	4,089.15	4,089.15
Services and Investment	51.02	51.02

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Chemicals production activities	18,690.6	18,690.6	Purchased electricity-related CO2 emissions from our 3 fertilizer production facilities in Samsun, Mersin, and Ceyhan. As energy attribute certificates in the form of I-RECs are now available in Turkey, starting from 2020, we are also reporting a market-based figure. However, other than I-REC certificates, other market-based data like supplier data or residual mix factors are still not available in Turkey and in

			other countries that we work in. Therefore, we have used the location-based results as a proxy since a market-based result cannot be calculated.

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Ammonia	94.04	The amount of ammonia purchased during the reporting period is collected using the data obtained from the shipping company. The ammonia purchased in tons is categorized according to the origin of the purchase. Ammonia emission factors are taken from the Fertilizers Europe online calculator. Emission factors are selected according to the origin of Ammonia purchased as the fossil fuels used for the production differ across different regions of the world. Ammonia emission factors are taken from the Fertilizers Europe Online Calculator. Emission factors are selected according to the origin of Ammonia purchased as the fossil fuels used for the production differ across different regions of the world. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	We do not sell products that are greenhouse gases.
Methane (CH4)	0	We do not sell products that are greenhouse gases.
Nitrous oxide (N2O)	0	We do not sell products that are greenhouse gases.

Hydrofluorocarbons (HFC)	0	We do not sell products that are greenhouse gases.
Perfluorocarbons (PFC)	0	We do not sell products that are greenhouse gases.
Sulphur hexafluoride (SF6)	0	We do not sell products that are greenhouse gases.
Nitrogen trifluoride (NF3)	0	We do not sell products that are greenhouse gases.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	7,127.65	Decreased	0.67	Toros Agri Samsun and Mersin Plants recover waste heat to produce electricity in Steam Turbine Generator (STG) Unit. And our Ceyhan plant has a small Solar PV. Also in Gonen Renewable Energy, we produce energy from biomass. In 2020 these 4 plants have produced 250,174.86 MWh of renewable energy. The renewable energy produced is 10.35% higher than the previous year and we have supplied 99,755.63 MWh of the electricity produced to the grid. Our total renewable energy consumption increased from 134,957.94 MWh in 2019 to 150,419.23 MWh in 2020 (15,461.29 MWh more renewable electricity was consumed in 2020 which is equal to 7,127.65 tCO2e). The decrease percentage was calculated as follows:

				7,127.65 tCO2e/ 1,056,262.42 tCO2e * 100 = 0.67%.
Other emissions reduction activities	6,615	Decreased	0.63	Our Scope 1+Scope 2 emissions were 1,056,262 tCO2e in 2019. In 2020, we have implemented 8 emissions reduction initiatives, resulting in a total of 6,615 t CO2e reduction. The decrease percentage was calculated as follows: 6,615 tCO2e / 1,056,262.42 tCO2e * 100 = 0.63%.
Divestment	0	No change	0	No divestments in 2020.
Acquisitions	0	No change	0	No acquisitions in 2020.
Mergers	0	No change	0	No mergers in 2020.
Change in output	37,547	Increased	3.55	In 2020, N2O emissions in our Mersin Plant have increased from 2,717.55 tons to 2,750.26 tons. This is due to 34% longer shut-down hours in the Nitric Acid plant compared to 2019. Longer shut-downs mean more N2O emissions every time the plant is started. This increase translates to an increase of 9,748 tons of CO2e in our process emissions. Another source of this increase is the increase in the activity of Tekfen Construction projects which have started in 2019 and also the start of new projects in 2020, which resulted in an increase of 28,206 tons of CO2e emissions. Our production facilities were not affected drastically by Covid-19, however, we had to shut down our offices, and the shut-downs in 2020 resulted in a decrease of 407 tons of CO2e emissions in our GHG inventory. In total, due to changes in output, our

				GHG emissions increased by 37,547 tons. The increase percentage was calculated as follows: 37,547 tCO2e/ 1,056,262.42 tCO2e * 100 = 3.55%.
Change in methodology	0	No change	0	No change in methodology.
Change in boundary	0	No change	0	No change in the boundary.
Change in physical operating conditions	0	No change	0	No change in physical operating conditions.
Unidentified	6,012	Increased	0.57	The unidentified change in GHG emissions (6,012 tCO2e) is the resulting change in total emissions after all of the changes are attributed to specific reasons. As our operations are extremely diverse, these changes may result from changes in output but we were not able to clearly identify the main reason, therefore these changes are reported under unidentified changes. The emissions value % is calculated as follows: 6,012/1,056,262*100 = 0.57%
Other	1,539	Increased	0.15	There was a refrigerant leakage in one of the Tekfen Agri operations sites which resulted in an increase of 1,539 tons of CO2e in our GHG inventory. The emissions value % is calculated as follows: 1,539/1,056,262*100 = 0.15%

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh

Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	890,410.87	890,410.87
Consumption of purchased or acquired electricity		0	70,403.16	70,403.16
Consumption of self-generated non-fuel renewable energy		150,419.23		150,419.23
Total energy consumption		150,419.23	960,814.03	1,111,233.26

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	68,554.81
Consumption of purchased or acquired electricity		40,543.6
Consumption of self-generated non-fuel renewable energy		150,419.23
Total energy consumption		259,517.64

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
41,478.09

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
41,478.09

MWh fuel consumed for self-generation of steam
0

Emission factor
0.00194

Unit
metric tons CO2e per m3

Emissions factor source
IPCC Chapter 2 Stationary Combustion (Table 2.2)

Comment

Fuels (excluding feedstocks)
Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
18,767.48

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
18,767.48

MWh fuel consumed for self-generation of steam
0

Emission factor
1.27422

Unit
metric tons CO2e per metric ton

Emissions factor source
IPCC Chapter 2 Stationary Combustion (Table 2.2)

Comment

Fuels (excluding feedstocks)
Fuel Oil Number 1

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
279.38

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
279.38

MWh fuel consumed for self-generation of steam
0

Emission factor
0.00318

Unit
metric tons CO2e per liter

Emissions factor source
DEFRA 2020 Conversion factors – Fuels-Fuel oil

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
938.8

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
938.8

MWh fuel consumed for self-generation of steam
0

Emission factor
2.88145

Unit
metric tons CO2e per metric ton

Emissions factor source
IPCC Chapter 2 Stationary Combustion (Table 2.2)

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
741,892.45

MWh fuel consumed for self-generation of electricity
212,021.36

MWh fuel consumed for self-generation of heat
529,871.09

MWh fuel consumed for self-generation of steam
0

Emission factor
0.00266

Unit
metric tons CO2e per liter

Emissions factor source
IPCC Chapter 3 Mobile Combustion (Table 3.2.1 &3.2.2)
IPCC Chapter 2 Stationary Combustion (Table 2.2)

Comment
Average of Mobile (0.0026705 metric tons CO2e per liter) and Stationary diesel emissions factors (0.0026349 metric tons CO2e per liter). Due to the challenging geographical conditions of Tekfen Construction projects, the diesel oil consumption figures have increased especially in mobile combustion activities.

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
54,090.38

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
54,090.38

MWh fuel consumed for self-generation of steam
0

Emission factor
0.00227

Unit
metric tons CO2e per liter

Emissions factor source
IPCC Chapter 3 Mobile Combustion (Table 3.2.1 &3.2.2)

Comment
Due to the challenging geographical conditions of Tekfen Construction projects, the gasoline consumption figures have increased especially in mobile combustion activities.

Fuels (excluding feedstocks)
Liquefied Natural Gas (LNG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
31,658.85

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
10,623.49

MWh fuel consumed for self-generation of steam
21,035.36

Emission factor
2.54241

Unit
metric tons CO2e per metric ton

Emissions factor source
DEFRA 2020 Conversion Factors – FUELS LNG

Comment

Fuels (excluding feedstocks)
Compressed Natural Gas (CNG)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1,305.44

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1,305.44

MWh fuel consumed for self-generation of steam
0

Emission factor
2.533

Unit
metric tons CO2e per metric ton

Emissions factor source

DEFRA 2020 Conversion Factors – FUELS CNG

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	462,196.22	362,440.59	250,174.86	150,419.23
Heat	73,392.68	73,392.68	0	0
Steam	21,035.36	21,035.36	0	0
Cooling	0	0	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	233,859.83	150,072.67
Heat	47,486.5	47,486.5
Steam	21,035.36	21,035.36
Cooling	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

Country/area of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed accounted for at a zero emission factor

Comment

In 2020 we haven't purchased any low-carbon electricity, heat, steam or cooling.

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

No

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

1,111,233.26

Metric numerator

Total energy consumption in MWh

Metric denominator (intensity metric only)

No denomitator. Not an intensity metric.

% change from previous year

12.77

Direction of change

Increased

Please explain

In 2019 our total energy consumption was 985,376.37 MWh.

This value increased by 12.77% in 2020 mainly due to the increase in activity of projects of Tekfen Construction and also due to the start of new projects in 2020. As some of the projects are in remote locations with no available grid connection, the electricity required in these project sites is generated using Diesel Generators. This alone resulted in a 10%

increase in the MWh used. In 2019 electricity produced by diesel generators was 115,168.40 MWh, whereas this value increased to 212,021.36 MWh in 2020. Also, the number of employees has increased which resulted in more energy consumption in our remote locations.

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product

Nitric acid

Production (metric tons)

391,200

Capacity (metric tons)

405,280

Direct emissions intensity (metric tons CO2e per metric ton of product)

2.095

Electricity intensity (MWh per metric ton of product)

0.134

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0.0978

Comment

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	We have an R&D center in Mersin as part of our Agri-Industry Activities. In the reporting period, as a result of the R&D activities held, the specialty fertilizer portfolio was enriched by the addition of Smart Urea and Smart N21

		which are slow-release fertilizers. Studies show that depending on circumstances in cultivation, slow-release fertilizers can reduce denitrification and greenhouse gas emission by up to 40%. In 2020 we have also signed a 5-year agreement with The Scientific and Technological Research Council of Turkey (TUBİTAK), to develop projects on sustainability-related issues including sustainable environment issues like waste management, water treatment technologies, and alternative energy technologies like biomass-based technologies and renewable energy. This agreement also includes research and development of projects that will reduce our direct and value chain GHG emissions.

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Product redesign	Small scale commercial deployment	≤20%	811,934	As part of our highest efforts to continuously work on developing new & more environmentally friendly products, we have invested in an R&D Center in Mersin as part of our fertilizer production practices which began working in 2017. A team of 28 peers work full-time at the R&D Centre to develop new eco-friendly products that will contribute to agricultural efficiency. In addition to the studies on how to improve the existing products, work is done on developing domestic production of the products produced abroad, on the improvement of production processes, optimization, energy-saving & minimizing the environmental effects. In addition, collaborations with local & foreign scientific institutions & universities are carried out for projects that will

				support agricultural development in line with the vision of sustainable agriculture. In addition to the two TUBITAK projects, which were accepted in 2019 & continued to be worked on at the Toros R&D Centre, two new TUBITAK projects were found eligible for support in 2020. Also, within the scope of the TUBITAK 1505 University-Industry Cooperation Support Programme, preparations for a joint project with Ankara University have been completed. As for the organo-mineral fertilizer studies, a joint project submission with Çukurova University was accepted under the call of TAGEM 2020. As one of the important developments of 2020, the R&D greenhouse investment was completed & put into service. In the greenhouse, where scientific trials & product development studies for various fertilizer formulations will be carried out, studies have been initiated in the scope of liquid organo-mineral fertilizers, different fertilizer formulations with inhibitors, compound fertilizers with different sources of zinc & products with different microbial content. Toros Agri's R&D Centre also contributes to plant nutrition & the agriculture sector with many international academic publications & shares its outputs with the scientific world at academic events. Seven articles were published by the R&D Centre in 2020, 3 oral presentations were made in different congresses & 3 papers were published. Moreover, applications for 3 utility models & 3 patents were submitted to the Turkish Patent &

				Trademark Office in 2020. The R&D budget dedicated to the Center was USD 811,934 in the reporting period.

C-CN9.6a/C-RE9.6a

(C-CN9.6a/C-RE9.6a) Provide details of your organization's investments in low-carbon R&D for real estate and construction activities over the last three years.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Toros Ceyhan Plant_2020_CDP_Scope 1_Verification Report.pdf

Toros Mersin Plant_2020_CDP_Scope 1_Verification Report.pdf

Toros Samsun Plant_2020_CDP_Scope 1_Verification Report.pdf

Toros Ceyhan Plant_2020_CDP_Scope 1_Verification Letter.pdf

Toros Mersin Plant_2020_CDP_Scope 1_Verification Letter.pdf

Toros Samsun Plant_2020_CDP_Scope 1_Verification Letter.pdf

Page/ section reference

In 2020, Scope 1 GHG emissions of our 3 fertilizer plants which fall under the scope of Turkish MRV regulation were verified. Please see attached the verification letters in CDP format signed by the lead verifier. The GHG emissions of these 3 plants make up 79.08% of our total Scope 1 GHG emissions. The verification reports in Turkish are also attached. In the Verification reports, the verified amounts are given on Page 3 under the title “Toplam Emisyon Miktarı tCO2e” (Total emissions tCO2e).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

79

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Toros Bag Production Plant_2020_Scope 2 Verification Letter.PDF

Toros Mersin _2020_Scope 2 Verification Letter.pdf

TITAS_Ceyhan_2020_Scope 2 Verification Letter.pdf

Toros Samsun _2020_Scope 2 Verification Letter.pdf

Toros Gonen _2020_Scope 2 Verification Certificate.PDF

TITAS_Ceyhan_2020_Scope 2 Verification Certificate.pdf

Toros Mersin_2020_Scope 2 Verification Certificate.pdf

Toros Ceyhan_2020_Scope 2 Verification Certificate.pdf

Toros Gonen _2020_Scope 2 Verification Letter.PDF

Toros Bag Production Plant_2020_Scope 2 Verification Certificate.PDF

Toros Ceyhan _2020_Scope 2 Verification Letter.pdf

Toros Samsun_2020_Scope 2 Verification Certificate.pdf

Page/ section reference

The 3 plants of Toros Agri, Adana Fertilizer Bag plant, Gonen Renewable Energy plant, and Tekfen Construction Ceyhan Steel Structural Fabrication plant's scope 2 emissions make up 71.45 % of our total Scope 2 GHG emissions.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

71

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3 (upstream & downstream)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

Tekfen Holding_Scope 3_ Verification Certificate.pdf

Tekfen Holding_Scope 3_CDP Verification Letter.pdf

Page/section reference

All of our Scope 3 GHG emissions are verified. In the CDP Template attached, page 2 gives the total Scope 3 GHG emissions and the emissions of each category. The certificate attached is one page and all the relevant information is included in the certificate.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our fertilizer production operations are in the scope of Turkish GHG MRV Regulation, which is the basis for a future probable ETS that is in line with the EU ETS.

Recently as a part of the World Bank-funded “Partnership for Market Readiness” project, simulations of an ETS system were studied. The results of this study were also published on the Turkish Ministry of Environment and Urbanization website. We anticipate being regulated under the Turkish ETS system until 2023.

Regardless of the pricing mechanism to be introduced, we are already investing heavily in reducing our CO2 and N2O emissions and keeping our other emissions much below legal limits. We have approved an investment in a new N2O catalyzer system at our Mersin Fertilizer Production Plant that will reduce our N2O emissions by around 85%. N2O emissions comprise around 77% of our Scope 1 GHG emissions, and we believe we have a major opportunity for emission reduction in this Scope.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Application

Agri-Industry: Toros Agri (N2O producing fertilizer business)

Actual price(s) used (Currency /metric ton)

28.28

Variance of price(s) used

According to a report on EU ETS, published by the International Carbon Action Partnership dated 18th of May 2021, the average price of an EUA was around 28.28 USD in 2020.

However, different regions may have different prices per ton of CO2, also different applications may require various prices. This is why we have started using differentiated pricing and we also evaluate our carbon price annually.

For our operations in Turkey, we are using a variance of prices to calculate our exposure to risks related to emerging regulations. The minimum price we use (USD 3.41) is taken from an ETS simulation study performed under the PMR project. The max. price we use is taken from the above-mentioned study on EU-ETS.

Another emerging regulation is EU Carbon Border Adjustment Mechanism, for which we use min and max. prices are taken from the projections of TUSIAD's recently published report titled “The New Climate Regime Through the Lens of Economic Indicators”. In this report price of carbon is valued between 34.2-57 USD. We use this price to calculate our risk for the products that we export to the EU.

We also use the price of carbon for our GHG emission reduction projects in order to calculate expected income, for which we use the price of 0.45 USD/ton for VCS projects and 0.90 USD/ton for Gold Standard projects.

Type of internal carbon price

Shadow price
Implicit price

Impact & implication

In a recent ETS simulation study published under the PMR Project, scenarios included capping the emissions at 80%. The simulation also included a free allocation of 50% of the allowances. This results in a liability of about 60%. (20% reduction + (80%x50% = 40 % auction))

In 2020 the verified total N2O and CO2 emissions of the 3 plants owned by Toros Agri were equal to 834,000 tons of CO2e. 60% of which makes 500,400 tons of CO2e.

Using the above-mentioned prices, our min. liability is 1.71 million USD and our max. liability is 28.89 million USD.

We presented these figures to the executive committee along with the Chairman of the Board and the implications of a possible carbon fee based on an internal carbon price.

Investment options to reduce this liability have been analyzed and the Board has approved a USD 1.230.000 investment in a new catalyzer to drastically reduce our N2O emissions by around 85%.

We use an implicit carbon price to quantify the capital investments that we are going to make especially in projects where we can also benefit from the sales of GHG emission reductions.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

36.7

% total procurement spend (direct and indirect)

26

% of supplier-related Scope 3 emissions as reported in C6.5

30.29

Rationale for the coverage of your engagement

Tekfen Group of Companies work with numerous suppliers. All of our suppliers are expected to comply with Tekfen's Code of Conduct and their compliance is audited. From a climate-change point of view, the effects of our suppliers are not equal. Therefore, we give utmost importance to the suppliers that have the highest effect on climate change.

We obtain sustainability information of our raw material suppliers, providers of technical goods/services, and subcontractors, with the goal to promote sustainable development in the supply chain and stakeholders, and to improve suppliers' awareness and their environmental-social standards. The evaluation process is based on an online assessment by a questionnaire.

The supplier assessments provide us with valuable information on their sustainability performance, including GHG emissions, energy and emission reduction projects, and relevant international certifications.

Our suppliers are evaluated based on risk due to the size, their goods/products, and the scale of our supplier portfolio. The proportion of relevant suppliers evaluated by the end of 2020 was around 36.70%. This corresponds to 26.0% of our total procurement spend.

Tekfen Holding's company-wide Supply Chain Policy has been recently issued and our goal is to increase the rate of suppliers to be evaluated of their sustainability performances.

Tekfen Construction's suppliers of:

• Structural Steel
• Reinforcing bar
• Asphalt
• Bricks
• Concrete
• Insulation Materials
• Tyres, and

• Wood

are assessed under this high-impact category.

Similar suppliers for our other group companies that are assessed under the high-impact category include:

• Iron Sheet supplier for Tekfen Manufacturing
• Ammonia and other raw material (Phosphoric acid, Phosphate rock, MOP, Urea, Sulphur, Ammonium Sulphate, DAP) suppliers for Toros Agri

The Scope 3 GHG Emissions related to these high-impact suppliers make up 30.29% of our total Scope 3 GHG emissions.

We collect activity data from these suppliers in order to calculate the Scope 3 emissions.

Impact of engagement, including measures of success

The score in our online assessments provides us a direct supplier performance indicator.

The supplier performance indicator score can be positively influenced by reporting on energy use and greenhouse gas (GHG) emissions, on energy and emission reduction projects, and by indicating that the supplier reports to CDP or holds ISO 50001 and ISO 14001 certifications.

Our aim as a measure of success is to gradually increase the number of suppliers assessed based on the sustainability parameters and reach 100% of our supply chain, have their commitment to our procurement and sustainability policies on a local level, and integrate the temporary project sites' suppliers.

The success indicator for us is the increasing number of our suppliers who are aware of climate change and water management. The increase in the number of our suppliers who report to CDP and have ISO 50001, ISO 14001 certification is likewise an indicator of success for us as well.

Tekfen has also set a goal to establish and effectively implement the supply chain assessment to all critical suppliers in all Tekfen Group Companies by 2023. Our measure of success is reaching this ambitious goal. In the reporting year, 36 of our 98 critical suppliers responded to our questionnaire, which translates to 36.7% of our critical suppliers. This means we have achieved 36.7 % of our goal, which we see as a success as our goal is set for 2023.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

63.1

Please explain the rationale for selecting this group of customers and scope of engagement

63.10% of Tekfen's Scope 3 emissions are from the use of fertilizers sold. The use of correct, timely, and adequate fertilizers is crucial to reducing Scope 3 emissions. Therefore, the awareness level of dealers and farmers is among the most important factors in reducing Scope 3 emissions from the use of fertilizers sold.

As part of Toros Agri activities, trainings are continuously provided to our ultimate customers, farmers, covering a wide range of agricultural topics which in return provides a contribution to economic and quality products in agricultural production through increasing awareness resulting in conscious production applications.

The increase in quantity and quality of produce yielded from a unit field, resulting from efficient and correct usage of fertilizers, water, and fuel to apply raw materials, contributes to our efforts to enhance our climate change management practices.

Toros Agri, with this awareness, has been organizing nationwide “Farmer Training Meetings” continuously since the 1980s, when the company started its operations, to increase quality and hence contribute to farmer’s wealth and protect the environment. In the fertilizer sector, farmer-training seminars, first and solely applied by Toros Agri, are organized throughout Turkey, in countless cities and districts, and open to everyone. In addition to the seminars, thanks to meetings at village cafes and TV programs, Toros Agri has reached over hundred thousands of farmers until today. Toros Agri is in close cooperation with regional agricultural organizations in relation to this matter.

Toros Agri has also Toros Farmer App that shares educational information and recommendations about fertilizers with our registered farmers and distributors. With this

APP we aim to contribute to Sustainable Development Goals (SDGs) 2, 4, 12, and 13.

We also educate our customers on the likely impacts of climate change on farming and how they should change/vary their methods based on changing climate trends, preparing them to become resilient to climate impacts. We believe that by raising awareness of our farmers using fertilizers, we can reduce the related energy and water consumption.

Impact of engagement, including measures of success

Wheat Fields registered to Toros Farmer App is 7.5 million decares and Turkey's total wheat fields are 75 million decares. By the end of 2020, 15,680,593 decares of 11,751 plantations belonging to 10,674 farmers were included in the Toros Farmer database (2019: 13,838,172 decares of 10,724 plantations). When the number of distributors (1,264) and authorized dealers are taken into consideration a total of 11,938 members actively use this app.

In 2020, 4,960 visits to distributors across Turkey (2019: 3,651 visits), 5,286 visits and interviews with farmers (2019:4,999 visits/ interviews), 369 visits to agricultural institutions, and 12 meetings with farmers were made. Although two rounds of programmes with the Toros Agriculture Education Bus had been planned in all regions of Turkey, one in spring and the other in autumn, activities had to be terminated after the second week of the spring leg due to the pandemic. In the meetings, which could be held only in 35 locations and 60 different points in the Aegean and Western Mediterranean regions, 801 farmers were trained about Toros Agri products and correct fertilization practices.

The continuous increase in these numbers compared to the previous year is an indicator of success for us. Some success indicators as % of change from the previous year is given below:

- The decares of land covered by the app has increased by 13.31%,
- Number of plantations using the app has increased by 9.58%
- Visits to distributors have increased by 35.85%
- Visits and interviews with farmers have increased by 5.74%

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

As part of engaging with its value chain on its climate-related efforts and strategy, Tekfen identifies several stakeholder groups namely; NGOs, Initiatives, Associations, Universities, Action Groups, and International Collaborations on cutting-edge climate-related projects.

NGOs: In addition to our close relations with environmental NGOs, we are both founding member and member of some NGOs such as TEMA (Turkish Foundation for Combating Soil

Erosion, for Reforestation and the Protection of Natural Habitats) who relentlessly combats deforestation.

Initiatives: We have joined the United Nations Global Compact (UNGC) in July 2018. By joining UNGC, the Group commits itself to increase measures aimed at minimizing the environmental impact of its operations, formulating & adhering to sustainable production & consumption practices in the conduct of business processes, increasing stakeholders' awareness of potential environmental risks & making stakeholders knowledgeable about the benefits of cleaner, more eco-friendly technologies by using them itself.

Associations: We are a founding member of CEDBİK (Turkish Green Building Council), a professional association that champions eco-friendly green buildings & actively takes part in their effort to promote energy-efficient building practices & standards. Moreover, we are a member of the Turkish Sustainable Development Business Council (SKD) at which we actively provide support as part of sustainable agriculture working group.

Universities: We believe know-how sharing is one of the most powerful tools to support our climate-related activities and collaboration with academia is the ultimate way to realize the tangible impact. During the reporting period, within the scope of the TUBİTAK 1505 University-Industry Cooperation Support Programme, preparations for a joint project with Ankara University have been completed. As for the organo-mineral fertilizer studies, a joint project submission with Çukurova University was accepted under the call of TAGEM 2020

Within the scope of Horizon 2020, the world's highest budgeted research and innovation programme, the AGROCHANGE project proposal prepared with the coordination of Çukurova University and the LANSFOOD project proposal prepared with the coordination of Sabancı University qualified to pass the first stage, and the second stage submissions were completed. As part of the Belmont Forum call, which supports researches on global environmental changes, the "Sustainable Agricultural Matrix" project proposal has been prepared. This project is still in its evaluation phase.

Tekfen Agri's collaborations with Sabancı University Nanotechnology Research and Application Centre, Akdeniz University Technology Transfer Office, Çukurova University, and TAGEM (General Directorate of Agricultural Researches and Policies) continued.

International Collaborations: As part of the Horizon 2020 Framework Programme for R&D from the European Commission, Tekfen Agri is the only Turkish collaborator in a 9 Partnered project coordinated by The Partnership for Research and Innovation in the Mediterranean Area (PRIMA) named GENDIBAR. The project is the first international R&D collaboration of Tekfen. The main objective of the project is to provide new knowledge and fill the research gaps for adapting barley farming to future environments to secure the production of cereal foods across Mediterranean countries. In the light of the climate projections and projected population increase, the sustainability of the barley production chain in the next decades will depend mainly on the crop's yield and productivity. Through this project, we aim to contribute to sustainable agriculture practices and enable energy and water savings while increasing the productivity of barley in the Mediterranean region

As a strategic decision showing our climate-related engagement strategy with other partners in the value chain, in 2019 Tekfen Engineering has partnered with 10 other companies for Hi-Flex (High Storage Density Solar Power Plant for FLEXible Energy Systems) project, in the development of cutting-edge climate-related technologies. Hi-Flex is a tower-type concentrated solar power plant that will be built in Barilla's Foggia pasta factory in Italy to supply process steam. During the HIFLEX project, the worldwide first complete pre-commercial system using particle technology will be developed, built, and demonstrated by eleven different partners; from seven different countries. The demonstration plant with 20 MWh thermal energy storage and a 2.5 MWth receiver includes all components of a commercial-scale plant except for the state-of-the-art steam turbine.

In 2020 we have also signed a 5-year agreement with The Scientific and Technological Research Council of Turkey (TUBITAK), to develop projects. This agreement also includes the development of projects that will reduce our direct and value chain GHG emissions.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers
Funding research organizations
Other

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	We give feedback to the draft regulations that are open to contribution by the Turkish government. As a member of INTES (Turkish Employers Association of Construction Industries), we engage with policymakers in issues that relate to the construction sector. INTES is a participant in World Energy Council (As an official Turkey Delegate) as well as is a Board Member in the Smart Transportation Systems Association and collects opinions from all member contractors including our Group Company Tekfen Construction.	Buildings use 72% of national electricity consumption in Turkey. In addition, buildings still carry 40% of total energy consumption, including fossil fuels in Turkey. Energy-efficient buildings reduce national greenhouse gas emissions by 15-20%. Therefore, we support the continuation of Turkish Regulation on Energy Efficiency. In addition, Tekfen supports the legislation with no exceptions.

Cap and trade	Support	We have attended the ETS Sectors Advisory Meeting in the scope of the EU ETS Regulation Impact Analysis Workshop as part of the Technical Support Project for Solution Based Strategy and Action Plan for Low Carbon Development. This process is coordinated by the Ministry of Environment and Urbanisation and is conducted as part of Partnership for Market Readiness (PMR) with the aim of Modelling of Financial, Economic, and Sectoral Impacts of Carbon Pricing in Turkey.	We support an Emissions Trading System to be implemented in Turkey as it provides stronger regulatory stability than the current environment.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Tekfen is a founding member of TEMA (The Turkish Foundation for Combating Soil Erosion for Reforestation and the Protection of Natural Habitats) and CEDBIK (Turkish Green Building Association), two important NGOs in regards to environmental and sustainability initiatives in Turkey, and is actively involved in creating awareness regarding environmental issues, best practices, and green buildings. For example, due to awareness-raising activities by mentioned NGOs and other supporters, Turkey has put in place a regulation covering energy efficiency in buildings. We also attend TUSIAD's panels and activities regarding climate change and are involved in awareness-raising activities especially in the business world regarding climate change. TUSIAD (Turkish Industry and Business Association) works closely with the Turkish business world to work towards sustainable development. Moreover, TUSIAD routinely issues opinions on existing as well as lacking policies and regulations with regards to environment and climate change via feedback received from its members. As Tekfen, we consider this our responsibility to contribute to these opinions and influence policymakers.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Climate change-related direct and indirect activities are coordinated by both the Sustainability Committee and Holding Health, Safety, Environment & Quality (HSE&Q) Coordinatorship.

An HSE&Q Coordination Group was established with representatives from all group companies. The representatives of all group companies meet periodically and the meeting is chaired by the Holding HSE&Q Coordinator.

Strategy and activities regarding climate change are shared with the group company representatives. The implementation of the activities is monitored by Holding HSE&Q Coordinator and the results are reported to Tekfen Group of Companies' CEO.

Additionally, Tekfen Holding has formed a Sustainability Committee which meets quarterly to discuss the Group Companies' progress and strategies on a wide range of sustainability issues covering climate change strategies. As a result of the discussions held at both groups together with the feedback received from the Board of Directors, we consequently plan and initiate our direct and indirect activities with our value chain, including the policymakers on climate-related issues.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Tekfen_Annual_Report_EN_2020_Web.pdf

Page/Section reference

132-135
166-171

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

Tekfen_Sustainability Report_2019.pdf

Page/Section reference

58-63
104-105

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Our 2020 Sustainability Report is still being prepared. 2019 Sustainability Report is attached.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	CEO, Tekfen Group of Companies	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms