

Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Established in 1956, Tekfen Group of Companies operates in five business areas: Engineering&Contracting Group, Chemical Industry Group, Agricultural Production, Services&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 well-being at the focal point of the Tekfen Group's business culture and charitable activities from the very outset. The Group has 38 companies and 13 subsidiaries. In 2022, the Group had USD 1.852 billion in revenues and assets of USD 1.354 billion. With 11.950 skilled employees (contractors included) and 67 years of experience, it is exemplary within the business world in terms of quality standards and ways of doing business.

Engineering&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 35.6% of the total turnover. In the reporting year, 9.780 employees worked in the Group.

Tekfen Construction is an internationally recognized leader of the Turkish contracting sector, operating in many countries. To date, it has been demonstrating its accumulated expertise with more than 2.200 projects. As of end of 2022, Tekfen Construction's active projects portfolio had a contract value (backlog) of USD 1,216 billion. In Engineering News-Record's 2022 list of the World's 250 biggest international contractors based on their 2021 operations, Tekfen Construction ranked 76th (2021 list: 80th).

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 Fertiliser's production and distribution. Toros Agri has been at the service of Turkish agriculture for the last 41 years. In the Istanbul Chamber of Industry's 2021 list of the five hundred business concerns in Turkey, Toros Agri ranked in 56th place. In fertilisers, 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 fertiliser producer. It has 1.364 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 fertilisers 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 58.3% of total turnover. In the reporting year, 2075 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 - 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 0.9% of total turnover. In the reporting year, 484 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 5.2% of total turnover. In the reporting year, 318 employees worked in these two Groups.

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2022	December 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

- Azerbaijan
- Iraq
- Kazakhstan

Qatar
Russian Federation
Saudi Arabia
Turkey

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	TRETKHO00012
Yes, a Ticker symbol	TKFEN on Borsa İstanbul

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality	Vital	Vital	Good quality freshwater, is used intensively at Chemical Industry Group for mainly cooling of fertilizer plants, Agricultural Production Group for

freshwater available for use			<p>fresh fruit production, Engineering&Contracting Group for construction of big scale projects (mainly in hydro testing of piping equipment) & we also need freshwater to provide WASH services to all our employees.</p> <p>As part of our indirect operations, our suppliers & customers (especially farmers) require sufficient amounts of good quality fresh water for their operations. If there is a water scarcity, farmers cannot grow their crops and in return this may curtail our fertilizer sales. Considering the share of Chemical Industry Operations in our overall revenue (58.3% for the reporting period) the importance of freshwater for our indirect operations is rated as vital as well.</p> <p>A lack of fresh water can have a considerable impact on both our direct&indirect operations hence the rating is “vital” for both. For example, our Engineering&Contracting Group has oil&gas construction projects which constitute around 65% of the overall project portfolio regarding contract value as of Dec. 2022. Fresh water is vital for the oil&gas projects to perform the piping and equipment (e.g. pipelines, storage tanks) tests.</p> <p>For future scenarios, we considered IPCC RCP 4.5 as a realistic scenario for the impacts of climate change on precipitation patterns and projected change in water stress in Turkey. We also base our analyses on the “Climate Change Projections for Turkey” report published by Turkey’s General Directorate of Meteorology. According to the report, Turkey will face 2 to 3 degrees increase in mean temperature during 2013-2040 and up to 4 degrees in later periods. Reductions in mean precipitation are also expected. We consider these impacts especially significant in our Chemical Industry&Agricultural Production operations.</p> <p>Therefore, the importance rating for both our direct and indirect operations will remain the same in the future.</p>
Sufficient amounts of recycled, brackish and/or produced water	Important	Neutral	<p>We use seawater in the Toros Agri Samsun Plant. Seawater is being used in the Sulphuric Acid Unit for cooling, production of demineralized water, and washing in the Phosphoric Acid Unit. 83.48 % of our total Holding-wide water withdrawal is from seawater</p>

<p>available for use</p>			<p>used in our Samsun facility. If sufficient amounts of brackish water is not available, this will directly impact our production capacity, resulting in a financial impact as the Samsun Plant has 37,73% of Toros Agri's total fertilizer production capacity.</p> <p>Because of an increase in water stress, the reuse and recycling of wastewater is also important for Tekfen.</p> <p>Therefore, both brackish and recycled water is "important" for our direct operations. We don't consider the importance of current recycled water in our indirect operations to be as important as our direct operations as most needs in our value chain are met through freshwater. Therefore, we consider the impact on our indirect operations to be neutral currently.</p> <p>We foresee an increase along with our growth rate in the direct use of recycled water in the future, therefore direct use rating may become "vital" for us in the long term.</p> <p>From a quality perspective, the availability of a decent temperature and quality seawater is also important. In line with the climate change scenarios, if the seawater temperatures rise, we might need to further cool down the seawater used. Therefore, we can say that the quality of brackish water will remain important and can even increase the magnitude of impact and become vital in the future.</p> <p>Both our agricultural production suppliers and customers of the fertilizers need water either to produce or use our products (stone fruit and fertilizers respectively), it can be expected that, with the foreseen increase in water stress in Turkey, they may need to recycle water or withdraw recycled water at an increasing ratio in the future. Therefore, we consider the impact on our indirect operations to become important in the long term.</p>
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W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Continuously	Water withdrawals are monitored at the operational level through monthly bills from suppliers in our commercial operations. As part of our production operations, we monitor our water withdrawals through both bills issued by our suppliers as well as internal water meter readings.	Agricultural Production Group, we have an addition of fresh surface water withdrawal measured by pump flow rates and rainwater calculated using meteorological data (average precipitation rate mm per region was multiplied by the total area (m2) at relevant regions) and the UN Food and Agriculture Organisation's (FAO) method was used to calculate the effective rainfall by the plants annually. Water withdrawal volume is followed up and reported to the Holding HSE Department monthly.
Water withdrawals – volumes by source	100%	Continuously	Water withdrawals are monitored at the operational level through monthly bills from suppliers in our commercial operations. As part of our production operations, we monitor our water withdrawals through both bills issued by	Agricultural Production Group, we have an addition of fresh surface water withdrawal measured by pump flow rates and rainwater calculated using meteorological data (average precipitation rate mm per region was multiplied by the total area (m2) at relevant regions) and the UN Food and Agriculture Organisation's (FAO) method was used to calculate the effective rainfall by the plants

			our suppliers as well as internal water meter readings.	annually. Water withdrawal volume is followed up and reported to the Holding HSE Department monthly.
Water withdrawals quality	100%	Continuously	We monthly and/or more frequently monitor the quality of water, used for all of our operations. We periodically get samples and send them for microbiological and chemical analysis to accredited laboratories in the periods set by legal criteria and regulations (e.g. analysis are conducted in monthly and/or bimonthly periods).	Our Chemical Industry operations conduct internal lab analyses daily and weekly to make sure the water is at a certain quality to be used as process water. The parameters analyzed include but not limited to pH, conductivity, suspended solids, silisium, active chlorine, P2O5, etc. Therefore in 100% of our sites, the quality of the water withdrawals are monitored. However, we can only monitor the quality of water under our control, and although we include the rainfall in our volumetric calculations, we cannot monitor the quality of rainwater which represents 0% of our total withdrawal.
Water discharges – total volumes	100%	Continuously	We monitor water discharges at all our operations. Our water discharge volume is monitored in real-time due to regulatory requirements by sensors at our Samsun	For all other facilities that supply water from third parties, the amount of water discharged is monitored via water bills as well as meter readings on a monthly basis. At Alanar Fruit orchards, 25% of the freshwater used for drip irrigation, was estimated as the discharge rate of the plants, since the

			Plant (98.15 % of our Holding-wide water discharge for the reporting period), which has a continuous wastewater monitoring system that is directly connected to the Ministry of Environment and Urbanization's system. The discharge volume and quality parameters are monitored by legal authorities in real time at our Samsun Plant.	plants can't absorb all the freshwater supplied.
Water discharges – volumes by destination	100%	Continuously	We monitor volumes of water discharges by destination at all our operations. %100 of water discharges to sea are monitored at our fertilizer production plant located in Samsun in real-time due to regulatory requirements.	For all other facilities that supply water from third parties, the amount of water discharged is monitored via water bills as well as meter readings on a monthly basis. At Alanar Fruit orchards, 25% of the freshwater used for drip irrigation, was estimated as the discharge rate of the plants as they cannot absorb all water supplied. Therefore, we measure/monitor/calculate all our water

			The amount of water discharged from the Samsun facility represents 98.15 % of our Holding-wide water discharge for the reporting period.	discharge per volume and destination.
Water discharges – volumes by treatment method	100%	Continuously	We monitor volumes of water discharges by treatment method at all our operations. Our water discharge volume is monitored continuously at our fertilizer production plant located in Samsun in real-time by sensors due to regulatory requirements, and in Ceyhan and Mersin plants through monthly meter readings.	For almost all activities we either use our own wastewater treatment facilities or discharge directly to third parties' wastewater treatment facilities. At Tekfen Agri's orchards, we discharge the irrigation water without any treatment to groundwater or surface water (0.20 % of the Holding-wide total water discharge for the reporting period). As per expert statements, we calculate that 25% of irrigation water can't be absorbed by the plants and discharged to groundwater or surface water. Overall, we monitor/calculate/measure all our water discharge per treatment method at least monthly for each facility/project.
Water discharge quality – by standard effluent parameters	100%	Continuously	Our 3 fertilizer plants (source of 99.18% of our total water discharge for the reporting	Our Toros Agri Samsun Plant uses a considerable amount of seawater and the resulting discharge represents 98.15 % of

			<p>period) have wastewater treatment units and water discharge quality is monitored as per the Turkish Water Pollution Control Regulation. The analyses are conducted on bi-monthly periods. The analyzed parameters are; BOD, Suspended Solids, Oil, and grease, P, Cr, Pb, CN, Cd, Fe, F, Cu, Hg, SO4, Total Kjeldahl Nitrates, TDF, COD, pH.</p>	<p>the total water discharges in the reporting period. There is a Monitoring Station that monitors standard effluent parameters of wastewater in real-time and reports to the Ministry of Environment and Urbanisation in Samsun Plant. Real-time reports can be reached 24/7 via the web. We do not monitor the discharge water quality for Tekfen Agri orchard operations as they are directly discharged as a result of irrigation.</p>
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not monitored			
Water discharge quality – temperature	100%	Continuously	<p>Toros Agri Samsun Plant has water discharge measuring and monitoring station that monitors</p>	<p>The majority of water is discharged to the sea. We do not monitor the discharge water temperature for Tekfen Agri orchard operations as they are directly discharged as a result of</p>

			<p>standard effluent parameters of wastewater continuously. The station is controlled and followed up by the Ministry of Environment, Urbanisation and Climate Change (MoEUCC) and determined water discharge quality parameters are monitored and recorded in real-time by the MoEUCC. One of the parameters being monitored continuously is the temperature of discharged water.</p>	<p>irrigation and the water temperature doesn't change. We also don't monitor the water temperature in our construction and other operations as this parameter is not relevant and the water temperature does not change in those operations. Samsun Plant represents 98.15 % of the total water discharges reported Holding-wide in this reporting period.</p>
Water consumption – total volume	100%	Continuously	<p>We calculate all of our water consumption volumes. As stated in the above section we monitor our total water withdrawal volumes either continuously through meters or through monthly meter readings</p>	<p>Therefore, the water consumption in total volume is calculated using the formula $Withdrawal (Total Volume) - Discharge (Total Volume)$ As part of our Tekfen Agri orchard agricultural practices, we calculate our rainwater consumption (plant rainwater intake/absorption) by using the UN FAO effective rainfall</p>

			depending on the type of facility. The discharge volumes are also monitored continuously through meter readings and/or monthly water bills.	calculation using national (regional) rainfall data. As per regular irrigation practices, we estimated an average 25% plant water absorption rate based on expert opinion. Therefore, we monitor/calculate/measure 100% of our water consumption either annually (only rainwater) or monthly (for all other water sources).
Water recycled/reused	100%	Continuously	We monitor the amount of water recycled/reused at all our facilities mostly via meters (monthly) where recycling/reusing takes place.	We demineralize and reuse water in our Chemical Industry fertilizer production operations and monitor this data in real-time in one of the facilities, Samsun. The 93.7 of water recycling takes place at our 3 fertilizer production facilities. The remainder (6.3 %) of our water reusing activities take place as part of Tekfen Construction operations and the amount is measured via volume calculation based on water truck capacity.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Continuously	The quality of drinking/potable water provided is being monitored and analyzed monthly and bi-monthly periods to ensure	The Health and safety of our employees is our top priority which also is a result of Tekfen Holding's materiality analysis conduct due to sustainability reporting. Therefore, all our employees/workers are provided with fully-

			compliance with regulatory limits.	functioning and safely managed WASH services at all times. Especially during the COVID-19 outbreak, this issue became an utmost priority for Tekfen Holding.
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W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	119,670.37	Higher	Increase/decrease in business activity	About the same	Increase/decrease in business activity	We compile the data via meter readings & water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula. While classifying the magnitude of

						change from the previous year data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the increase in withdrawal amounts was calculated to be 14.47% it is classified as "Higher".
Total discharges	113,067.68	Higher	Increase/decrease in business activity	About the same	Increase/decrease in business activity	We compile the data via meter readings & water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula. While

						<p>classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the increase in discharge amounts was calculated to be 18.89% it is classified as "Higher".</p>
Total consumption	6,602.69	Much lower	Increase/decrease in business activity	About the same	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation</p>

						<p>formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the decrease in consumption amounts was calculated to be 30.05% it is classified as “Much lower”.</p>
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W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
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Row 1	Yes	1-10	Lower	Increase/decrease in business activity	About the same	Increase/decrease in business activity	WRI Aqueduct	We use the WRI Aqueduct Water Risk Atlas tool to identify overall water risks, baseline water stress, the projected change in water stress, flood occurrence, drought severity, groundwater stress in locations where our facilities/sites/ operations at. By using the tool, we assessed the Water Stress level for all of our locations by entering their coordinates on the tool and identifying the basin they are located at. Areas with High (40-80%) or Extremely
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								<p>High (>80%) Baseline Water Stress as evaluated by WRI Aqueduct are classified as Water- Stressed Areas.</p> <p>The water stress level is a very important data for us. Water stress measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. (Water withdrawals include domestic, industrial, irrigation, and livestock consumptiv e and nonconsum ptive uses. Available renewable water supplies include the</p>
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								<p>impact of upstream consumptive water users and large dams on downstream water availability.) And higher values indicate more competition among users. According to the tool, although most of our operations (53 out of 62 locations) are listed as having High (40-80%) to Extremely High (>80%) Water Stress Levels, volume-wise our withdrawal from areas with water stress have decreased by 34.23% (From 13,107.9 ML in 2021 to 8,620.8 ML in 2022).</p>
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								<p>Our total corporate-wide water withdrawals have increased by 14.47% in comparison with the previous reporting period. In 2021 our water withdrawals from water-stressed areas made up 12.54% of our total water withdrawals. This year this value is down to 7.2%.</p> <p>There is one major reason for this increase:</p> <ol style="list-style-type: none"> 1. Resulting in a 67.63% decrease in water withdrawals from water stress areas for Tekfen construction (1,983 ML decrease in withdrawal).
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								<p>Tekfen construction projects make up 11.01% of total withdrawals from water-stressed areas. In other operations there are also small changes but they are not significant enough to be reported here. As a result of this analysis, we can say that our water withdrawals from water-stressed areas have decreased by 34.23 % with respect to the previous reporting year. According to WRI Aqueduct Water Risk Atlas Tool, although our Samsun Plant is currently at a low-stress area, in the</p>
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								future analysis (2030), this plant will fall under “Extremely High Risk” category. Therefore, it is reported under W4.1a and W4.1b of this report.
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W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	4,747.21	Lower	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider</p>

					<p>the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the decrease in withdrawal amounts was calculated to be 18.35% it is classified as “Lower”</p>
Brackish surface water/Seawater	Relevant	106,683.18	Much higher	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As</p>

					the increase in withdrawal amounts was calculated to be 22.24% it is classified as "Much higher".
Groundwater – renewable	Relevant	7,697.17	Much lower	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the decrease in withdrawal amounts was calculated to be 23.83% it is classified as "Much Lower".</p>

Groundwater – non-renewable	Not relevant				We do not use non-renewable groundwater in any of our operations. Therefore, water withdrawal from this source is currently not relevant for our business and will remain as not relevant in the future.
Produced/Entrained water	Not relevant				Tekfen Construction was contracted to build an oil pipeline by an oil drilling company. In this project produced water was used. But the project was finalized, hence there is no produced/entrained water use in 2022. Therefore, this water source becomes irrelevant for Tekfen Holding.
Third party sources	Relevant	534.97	Much lower	Increase/decrease in business activity	We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological

					<p>data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the decrease in withdrawal amounts was calculated to be 60.38% it is classified as “Much Lower”.</p>
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W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant	87.62	About the same	Increase/decrease in business activity	We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national

					<p>meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the increase in discharge amounts was calculated to be 0.74% it is classified as “About the same”.</p>
Brackish surface water/seawater	Relevant	107,842.08	Higher	Increase/decrease in business activity	We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation

					<p>formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the increase in discharge amounts was calculated to be 18.18% it is classified as “Higher”.</p>
Groundwater	Relevant	587.4	Much lower	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year</p>

					<p>data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as “higher/lower”, and above 20% as “much higher/lower”. As the decrease in discharge amounts was calculated to be 69.81% it is classified as “Much lower”..</p>
Third-party destinations	Relevant	4,550.59	Much higher	Increase/decrease in business activity	<p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year data, we consider the change up to +/- 5% as “about the same”, 5% to 20% as</p>

					“higher/lower”, and above 20% as “much higher/lower”. As the increase in discharge amounts was calculated to be 150.26% it is classified as “Much higher”.
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W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant					Tertiary treatment is the “treatment” process used to remove polluting agents, like nitrogen, phosphorus, heavy metals, toxic organic substances, etc., which can not be sufficiently removed via physical or biological treatment methods. However, the

						<p>results of wastewater analysis in our plants, show that pollutants like ammonium nitrogen, nitrate, sulfate, phosphorus, copper, mercury, iron, cadmium, lead, chromium, etc. are always under the limits set in Table 19 of Water Pollution Control Regulation. As our analysis results are always under legal limits, we do not require further treatment of our wastewater. Although there is no need for advanced treatment, we have included an advanced wastewater treatment and recovery plant in our investment plans for Toros Agri's Mersin plant. This investment is planned especially in</p>
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						order to recover the ammonia and nitrate in wastewater to be used as products and also to produce demineralized water.
Secondary treatment	Relevant	5,537.92	Higher	Increase/decrease in business activity	21-30	<p>We have secondary treatment in one facility of Tekfen Manufacturing, 6 projects of Tekfen Construction and 7 facilities of Toros Agri.</p> <p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from</p>

						<p>the previous year's data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the increase in secondary treatment amounts was calculated to be 18.22% it is classified as "Higher".</p>
Primary treatment only	Relevant	106,683.17	Much higher	Increase/decrease in business activity	1-10	<p>We only have primary treatment in Toros Agri Samsun Plant, the discharge volume of which makes up 98.15% of our total water discharges, this facility uses seawater for cooling purposes and prior to discharge to the sea, the seawater used is collected in ponds for sedimentation purposes.</p> <p>We compile the</p>

						<p>data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year's data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the increase in primary treatment only amounts was calculated to be 21% it is classified as "Much higher".</p>
Discharge to the natural	Relevant	425.95	Much lower	Increase/decrease in	41-50	We discharge groundwater without

<p>environment without treatment</p>				<p>business activity</p>		<p>treatment in the plantations of Tekfen Agri, in some projects of Tekfen Construction and some irrigation water is also discharged to groundwater in some locations of Toros Agri.</p> <p>We compile the data via meter readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year's data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower",</p>
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						and above 20% as “much higher/lower”. As the decrease in discharge to the natural environment without treatment amounts was calculated to be 74.01% it is classified as “Much lower”.
Discharge to a third party without treatment	Relevant	46.01	Much lower	Increase/decrease in business activity	81-90	<p>In headquarters, district offices and almost all of the permanent facilities of Tekfen Group Companies there is discharge to 3rd parties (i.e. domestic wastewater is usually discharged to the municipality sewage system). Depending on the location the 3rd parties usually have secondary or tertiary treatment facilities.</p> <p>We compile the data via meter</p>

						<p>readings&water bills in all operations except rainwater withdrawals for Tekfen Agri, which we calculate based on national meteorological data using the UN FAO effective rainfall calculation formula.</p> <p>While classifying the magnitude of change from the previous year's data, we consider the change up to +/- 5% as "about the same", 5% to 20% as "higher/lower", and above 20% as "much higher/lower". As the decrease in discharge to a third party without treatment only amounts was calculated to be 89.29% it is classified as Much lower".</p>
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Other	Not relevant					We don't have any other type of treatment/disch arge.
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W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	1,852,000,000	119,670.37	15,475.8441876632	

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances	Comment
Row 1	No	

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement
Suppliers	Yes
Other value chain partners (e.g., customers)	Yes

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

Yes, we assess the impact of our suppliers

Considered in assessment

- Basin status (e.g., water stress or access to WASH services)
- Supplier dependence on water
- Supplier impacts on water availability
- Supplier impacts on water quality
- Procurement spend

Number of suppliers identified as having a substantive impact

36

% of total suppliers identified as having a substantive impact

76-99

Please explain

Tekfen uses a cloud-based Supplier Management System (SMS) which is utilized to evaluate Tekfen’s current suppliers. In 2021, Tekfen Construction has enhanced its ability to analyze the supplier base by introducing advanced spend analysis method. The analysis runs an 80-20 Pareto Histogram on Procurement activities in total value & order frequency to clarify group of Strategic Suppliers. After the critical suppliers are identified using Pareto analysis, the cloud-based online SMS is used to evaluate suppliers.

Tekfen requests information about suppliers’ sustainability performance, including their water management practices. We request information from our suppliers about their company quality systems (ISO 9001, ISO 14001, etc.) and their product certifications and water management methods by requesting them to respond to the online questionnaires.

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization’s purchasing process?

Suppliers have to meet specific water-related requirements	
Row 1	Yes, water-related requirements are included in our supplier contracts

W1.5c

(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization’s purchasing process, and the compliance measures in place.

Water-related requirement

Conducting water-related risk assessments on a regular basis (at least once annually)

% of suppliers with a substantive impact required to comply with this water-related requirement

76-99

% of suppliers with a substantive impact in compliance with this water-related requirement

76-99

Mechanisms for monitoring compliance with this water-related requirement

On-site third-party audit
Supplier self-assessment

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

We ask all our subcontractor candidates to reply this questionnaire, which include questions about their water monitoring practices, environmental management approach and their projects to reduce their water consumption. In our current supplier evaluation, we ask our suppliers under the “Manufacturer” category, whether they monitor their water data and have any projects to reduce water consumption. In the supplier evaluation, documents and information are collected in order to analyze the possible risks of the Supplier such as financial, HSE, corporate structure and geographical conditions. All titles combine in total to form a “Supplier Score”. If the supplier scores are high enough the suppliers have a chance to enter Tekfen’s Approved Supplier List. The supplier assessment questionnaire is sent to all candidate sub-contractors. Also, it is shared each year with existing critical suppliers,

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement

Incentivization

Details of engagement

Offer financial incentives to suppliers improving water management and stewardship across their own operations and supply chain

% of suppliers by number

76-99

% of suppliers with a substantive impact

76-99

Rationale for your engagement

Our greatest challenge in responsible water stewardship, as well as our biggest opportunity, lies in addressing impacts within our supply chains.

Tekfen Holding’s Supply Chain policy clearly states that we expect our suppliers and subcontractors to use natural resources efficiently, and take measures to reduce their carbon and water footprints by keeping track of their GHG emissions and water consumption.

In order to make sure that our suppliers are in line with our supply chain policy, we have a questionnaire that we ask our suppliers to fill out and the answers given in this questionnaire has an impact on the supplier selection process of Tekfen Construction.

We ask all our subcontractor candidates to reply this questionnaire, which include questions about their water monitoring practices, environmental management approach and their projects to reduce their water consumption. In our current supplier evaluation, we ask our suppliers under the “Manufacturer” category, whether they monitor their water data and have any projects to reduce water consumption. Their positive answers are reflected positively to their supplier score.

In addition, we engage our supplier through our Supply Chain Policy, Contracts, and Supplier Sustainability Assessment Questionnaire. Tekfen purchases goods/services from suppliers on the Approved Supplier List (ASL). Being on the ASL is one of the most important incentives for our suppliers.

Impact of the engagement and measures of success

In the supplier evaluation, documents and information are collected in order to analyze the possible risks of the Supplier such as financial, HSE, corporate structure and geographical conditions. All titles combine in total to form a “Supplier Score”. As mentioned above the positive replies to water management questions, are reflected positively to the supplier scores. If the supplier scores are high enough the suppliers have a chance to enter Tekfen’s Approved Supplier List.

The supplier assessment questionnaire is sent to all candidate sub-contractors. Also, it is shared each year with existing critical suppliers, which are selected using an advanced spend analysis method. The analysis runs an 80-20 Pareto Histogram on Procurement activities in total value & order frequency to clarify group of Strategic Suppliers.

In 2021 we have identified 36 critical suppliers, and our supplier assessment questionnaire was shared with all of them. 19 of our critical suppliers responded to the questionnaire, which makes more than 50%. In the future we aim to increase this percentage as this is a success measure for us

Comment

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Customers

Type of engagement

Education / information sharing

Details of engagement

Educate and work with stakeholders on understanding and measuring exposure to water-related risks

Rationale for your engagement

Toros Agri, engages with its dealers, sales points & farmers (customers) directly to increase awareness on the correct application of fertilizers. We are using several engagement methods that include:

Toros farmer app: which was established by Toros Agri in 2016, is a 100% free farmer-friendly decision support app, which helps the farmers benefit from technological developments. By the end of 2021, the Toros Farmer app reached 19,417 active users 1 to 1 meetings with the distributors & authorized dealers Toros Farmer Academy (TFA): is a mobile education bus which was established in 2018 . In 2021 TFA has performed: 5398 visits to distributors, 7975 interviews with farmers, 184 visits to agricultural institutions, 20 meetings with farmers.

Toros Women Farmer's Credit is a project initiated by Tekfen Foundation & Turkish Foundation for Waste Prevention to employ women entrepreneurs who want to set up their own agricultural operations but do not have the means to do so. Toros Agri's expert agricultural engineers provide free trainings on basic agriculture, health&safety. They also support the women farmers during&after production.

Impact of the engagement and measures of success

Toros Agri also engages and actively collaborates with universities as part of its R&D activities focusing on water-soluble fertilizer development with great potential to reduce water pollution & avoid excess water consumption. By engaging with universities, we aim to turn the know-how shared into new &more sustainable products positively affecting the whole value chain. This will enable multi-dimensional water related benefits once these products are commercialized in the medium to long term. Accordingly, we define the measure of success for these engagement/collaborations as commercialization of new, water-soluble fertilizers.

To measure the success, we consider the number of users of the Toros Farmer Application; meetings held with dealers; trainings, presentations and R&D projects completed.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

	Water-related regulatory violations	Fines, enforcement orders, and/or other penalties	Comment
Row 1	Yes	Fines	

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines

1

Total value of fines

23,839.75

% of total facilities/operations associated

1.61

Number of fines compared to previous reporting year

Lower

Comment

On May 13, 2023, Toros Tarım's Gönen facility received a penalty of 394,548 TRY as a result of an inspection conducted by the Ministry of Environment, Urbanization, and Climate Change. The penalty was imposed due to the discharge of wastewater not meeting the standards set by the Water Pollution Control Regulation regarding the Chemical Oxygen Demand (COD) value.

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Type of penalty

Fine

Financial impact

23,839.75

Country/Area & River basin

Turkey

Other, please specify

Gönen

Type of incident

Spillage, leakage or discharge of potential water pollutant

Description of penalty, incident, regulatory violation, significance, and resolution

On May 13, 2023, Toros Agri's Gonen facility faced a penalty of 394,548 TRY following an inspection carried out by the Ministry of Environment, Urbanization, and Climate Change. The penalty was imposed due to the discharge of wastewater that did not meet the standards outlined in the Water Pollution Control Regulation, specifically regarding the Chemical Oxygen Demand (COD) value.

The significance lies in the financial and reputational implications. The imposed penalty of 394,548 TRY reflects the seriousness of the violation and highlights the importance of adhering to environmental regulations. Additionally, the incident could potentially harm the company's reputation, especially in terms of environmental responsibility and compliance with regulatory requirements.

As a resolution, Toros Agri is planning to improve their wastewater treatment processes, implement stricter monitoring protocols, and ensure compliance with the Water Pollution Control Regulation.

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	<p>Details of our policies and processes to identify potential water pollutants:</p> <p>Toros Agri, being the major company in our Chemical Industry Group, produces chemical fertilizers, which are sold to both domestic and international markets. Toros Agri sold 2 M tons of chemical fertilizers in 2021, 81% of which is sold to domestic markets. Toros Agri is one of the top fertilizer producers in Turkey with a 24% market share. All of the operations of Toros Agri are ISO 14001:2015 Environmental Management System and IFA (International Fertilizer Association) Protect & Sustain Certified. Within the scope of these standards, we have implemented a water pollution control management system across our operations in the fertilizer production processes. In</p>

		<p>accordance with our Water Policy and & Regulation on Prevention of Pollution, pollutants originating from chemical fertilizer production are determined, parameters related to the determined pollutants are monitored, measured & the results are analyzed. In all of our fertilizer production facilities:</p> <ul style="list-style-type: none"> · The hazardous chemicals · Their CAS codes, · Max. amount of these chemicals in the facility, · Hazardous substance categories, · Measures to be taken against accidental spill, · handling & storage conditions, · major accident scenarios & preventive actions · The ecotoxicological properties of these chemicals including acute toxicity, mobility, biodegradability, persistence & degradability, bioaccumulation potential have all been determined.
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W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Phosphates

Description of water pollutant and potential impacts

These pollutants are related to Phosphoric Acid Unit and the other fertilizer production units. Phosphate will stimulate the growth of plankton and aquatic plants which provide food for fish. This may cause an increase in the fish population and improve the overall water quality. However, if an excess of phosphate enters the waterway, algae, and aquatic plants will grow wildly, choke up the waterway and use up large amounts of oxygen. This condition is known as eutrophication or over-fertilization of receiving waters. This rapid growth of aquatic vegetation eventually dies and as it decays it uses up oxygen. This process in turn causes the death of aquatic life because of the lowering of dissolved oxygen levels. Nitrogen is a common chemical element found in many molecules used in the chemical industry, e.g. ammonia, a building block of many chemical products (e.g. plastics, fertilizer). As such, traces of Nitrogen are typically contained in chemical industry wastewater. Nitrogen levels in wastewater can be reduced biologically (De-Nitrification) to meet regulatory standards. High nitrogen concentrations in aquatic ecosystems raise the level of nutrients, can cause algal blooms and lead to oxygen depletion. This eutrophication process may pose a threat to biodiversity and diminish life in aquatic environments. Loss of biodiversity can cause spiraling negative effects on interconnected ecosystems, e.g. bird populations depending on fish for food.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Beyond compliance with regulatory requirements

Please explain

The best possible technologies are used in our Phosphoric Acid Unit and other fertilizer production units which are the sources of specified pollutants. It is not possible to use a different raw material at the production process. However, the properties of the raw materials are inspected and controlled in every purchase order. The pollutant parameters of the discharged water are

followed by the facility and the relevant public units, via samples taken both online and manually, against compliance with the limit values in the Water Pollution Control Regulation. There are instructions prepared for each production process and the possibility of going beyond these instructions is followed by automatic control systems and periodic inspections and audits. The discharge water is always tested and the measure of success is the compliance with regulatory limits. These tests are performed by either accredited laboratories and/or online measurement and monitoring system which is directly linked to Ministry of Environment and Urbanization.

All kinds of hazardous chemicals are stored at impermeable bunded areas to prevent spillage and leakages to the ground. We also have targets like “% of tests/samples compliant with determined standards for effluent discharge” to ensure compliance with the discharge limits.

Water pollutant category

Other, please specify

pH

Description of water pollutant and potential impacts

Discharged water's pH is important for the destination environment. If the discharge water is polluted with acidic or basic materials, the pH of the discharge water may change. The changes in the water pH have a negative impact on all living organisms in the water of the destination environment. If the pH of water is too high or too low, the aquatic organisms living within it will die. pH can also affect the solubility and toxicity of chemicals and heavy metals in the water. The majority of aquatic creatures prefer a pH range of 6.5-9.0, though some can live in water with pH levels outside of this range.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Beyond compliance with regulatory requirements

Please explain

Ocean/ sea acidification is already impacting many ocean/sea species, especially organisms like oysters and corals that make hard shells and skeletons by combining calcium and carbonate from seawater. Therefore, we measure and monitor the pH of waste water before discharge to receiving environment. We issue Environmental Monitoring Plans that describe all preventive measures against these kinds of environmental aspects. pH of the discharged water is followed by the facility and the relevant public units, via samples taken both online and manually, against compliance with the limit values in the Water Pollution Control Regulation. In our Samsun Plant there is a Monitoring Station that monitors standard effluent parameters including the pH of wastewater in real-time and reports to the Ministry of Environment and Urbanisation. Real-time reports can be reached 24/7 via the web. There are instructions prepared for each production process and the possibility of going beyond these instructions is followed by automatic control systems and periodic controls. The discharged water is always tested and the measure of success is compliance with regulatory limits. We also have targets like “% of tests/samples compliant with determined standards for effluent discharge” to ensure compliance with the discharge limits.

Water pollutant category

Other, please specify
Temperature

Description of water pollutant and potential impacts

The temperature of water increases due to the cooling water used in the facilities. The temperature of the wastewater is higher than that of the water supply. The temperature of the water is a very important parameter because of its effect on chemical reactions and reaction rates, aquatic life, and the suitability of the water for beneficial uses. Increased temperature, for example, can cause a change in the species of fish that can exist in the receiving water body. In addition, oxygen is less soluble in warm water than in cold water.

The increase in the rate of biochemical reactions that accompanies an increase in temperature, combined with the decrease in the quantity of oxygen present in surface waters, can often cause serious depletion in dissolved oxygen concentrations in the summer months.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Beyond compliance with regulatory requirements

Please explain

The best possible technologies are used in our fertilizer and acid plants, which are the sources of the specified pollutants. For example, we have started to change our cooling process and air-cooled system started to be used instead of water-cooled systems. We issue Environmental Monitoring Plans that describe all preventive measures against these kinds of environmental aspects. In our Samsun Plant, there is a Monitoring Station that monitors standard effluent parameters including the temperature of wastewater in real-time and reports to the Ministry of Environment and Urbanisation. Real-time reports can be reached 24/7 via the web. The other pollutant parameters in the discharged water are followed by the facility and the relevant public units, via samples taken both online and annually, against compliance with the limit values in the Water Pollution Control Regulation. There are instructions prepared for each production process and the possibility of going beyond these instructions is followed by automatic control systems and periodic controls. The discharge water is always tested and the measure of success is the compliance with regulatory limits. We also have targets like “% of tests/samples compliant with determined standards for effluent discharge” to ensure compliance with the discharge limits.

Water pollutant category

Other, please specify
Cadmium

Description of water pollutant and potential impacts

Cadmium comes from the phosphate rock that is used in phosphoric acid production. Cadmium is a heavy metal with high toxicity. Cadmium is toxic at very low exposure levels and has acute and chronic effects on health and the environment. Cadmium is not degradable in nature and will thus, once released to the environment, stay in circulation. New releases added to the already existing deposits of cadmium in the environment. Therefore Cadmium is a toxic material for all living organisms.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Beyond compliance with regulatory requirements

Please explain

The best possible technologies are used in our fertilizer and acid plants, which are the sources of the specified pollutants. It is not possible to use a different raw material to avoid these parameters. However, product properties in the raw materials are controlled in every order. The pollutant parameters in the discharged water are followed by the facility and the relevant public units, via samples taken both online and manually, against compliance with the limit values in the Water Pollution Control Regulation. There are instructions prepared for each production process and the possibility of going

beyond these instructions is followed by automatic control systems and periodic controls. The discharge water is always tested and the measure of success is the compliance with regulatory limits. We also have targets like “% of tests/samples compliant with determined standards for effluent discharge” to ensure compliance with the discharge limits.

Water pollutant category

Nitrates

Description of water pollutant and potential impacts

Nitrogen from a variety of sources can make its way into groundwater and waterways. A certain level of nitrogen is naturally present in the environment and nitrate in low quantities are necessary nutrients. However, the high levels of nitrate found in major anthropogenic contributors such as agricultural runoff, nitrogen-based fertilizers, animal manure and sewage pose a problem. High concentrations of nutrients in the water table can cause drinking water to become toxic. Nitrate is one of the most common groundwater contaminants in rural areas. Nitrates-related pollution is caused by the introduction of excessive amounts of nitrogen to surface and ground waters, mainly as a result of agricultural practices. About 50-70% of nitrogen input to water came from agriculture and nitrate pollution may increase in the coming years (medium-term). One of the leading agri-environmental indicators is the nitrate pollution of groundwater. Due to the wrong/over-application of fertilizers, along with environmental characteristics such as average temperature and precipitation as co-factors, there is a risk of nitrate pollution in groundwater sources that are likely to get higher over the medium term. If the nitrate concentration levels get higher, there is a risk of compliance cost to be introduced as part of encouraging farmers and fertilizer producers to adopt sustainable agriculture practices.

Value chain stage

Product use phase

Actions and procedures to minimize adverse impacts

Industrial and chemical accidents prevention, preparedness, and response

Please explain

We have launched the “Correct and Balanced Fertilizer Use Project” via which we aim to communicate with farmers on what can be achieved through correct use of fertilizers compared to their regular fertilizing methods. This engagement has a number of benefits as it directly enables efficient use of water as well as avoiding the application of fertilizer, this also helps reduce water and land pollution.

We are using several engagement 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 trainings to farmers

By the end of 2022, 13,110 members actively use the Toros farmer app. In 2022, 6,970 visits to distributors across Turkey, 9,000 interviews with farmers, 211 visits to agricultural institutions and 6 meetings with farmers were made. All these above-mentioned awareness-raising activities help us reduce the nitrate pollution that may be caused via excess use of our products. The continuous increase in these numbers compared to the previous year is an indicator of success for us.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

- Direct operations
- Supply chain
- Other stages of the value chain

Coverage

- Full

Risk assessment procedure

- Water risks are assessed as part of an established enterprise risk management framework

Frequency of assessment

- More than once a year

How far into the future are risks considered?

- More than 6 years

Type of tools and methods used

- Tools on the market
- Enterprise risk management
- International methodologies and standards
- Databases
- Other

Tools and methods used

- WRI Aqueduct
- WWF Water Risk Filter
- Enterprise Risk Management
- ISO 31000 Risk Management Standard

IPCC Climate Change Projections
 ISO 14001 Environmental Management Standard
 Regional government databases
 Internal company methods
 External consultants

Contextual issues considered

Water availability at a basin/catchment level
 Water quality at a basin/catchment level
 Stakeholder conflicts concerning water resources at a basin/catchment level
 Implications of water on your key commodities/raw materials
 Water regulatory frameworks
 Status of ecosystems and habitats
 Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
 Employees
 Investors
 Local communities
 NGOs
 Regulators
 Suppliers
 Water utilities at a local level
 Other water users at the basin/catchment level

Comment

W3.3b

(W3.3b) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	For short-term water-related risks at the asset level, we use ISO 14001 Environmental Management System’s risk management approach. Medium- and long-term water-	During our water-related risk assessment, we include each contextual issue because we implement an all-risk approach. Contextual issues like water	Tekfen implements an all-risk approach to risk assessment, which includes all the possible stakeholders. Customers are always included in our risk assessments especially for Toros	Supply chain & other stages of the value chain: To determine the risks in our value chain we also use WRI Aqueduct Water Risk Atlas. While assessing supplier-related water

<p>related risks at Company and Holding levels are covered by Corporate Risk Management (CRM) which is parallel to ISO 31000 Risk Management Standard and COSO. CRM specifically classifies risks as strategic, operational, financial, compliance and reputational risks. We use WRI Aqueduct, WWF Water Risk Filter and regional government databases to define risk probabilities and risk impact levels in medium and long term.</p> <p>Direct operations: The first step is to measure water data (withdrawal, discharge and consumption amounts) of each business facility. We utilize WRI-Aqueduct in order to ascertain fundamental information regarding the basins. The actual evaluations involve analyzing current and future water stress levels. In our analysis sites that were evaluated as having a High (40-80%) or Extremely High (>80%) Baseline Water Stress while having total annual water</p>	<p>availability, regulation, WASH Access and ecosystem protection are included in risk assessments for direct operations. Whereas other contextual issues like stakeholder conflicts and implication of water on key commodities are included in risk assessments for downstream and upstream value chains.</p>	<p>Agri, as climate-triggered issues like water stress will directly impact farmers. Employees, shareholders and investors are always included in the risk assessments, as their suggestions and expectations help shape our future strategies. Local Communities, NGOs, Regulators, Suppliers, Water Utilities and Other Water Users are especially included while assessing the risks and opportunities in our upstream and downstream value chain.</p>	<p>risks, we include all aspects of our value chain covering both current and possible future suppliers. We also use WWF Water Risk Filter's Conflict Risk Scores to identify water-related conflict risks as well as historical political conflicts due to competition over limited water resources.</p> <p>How the outcomes are used: All risk management operations including actions and status tracking are followed by Group Company Risk Departments with the help of HSE Departments when it comes to climate/water-related risks. Risks are graded based on a portfolio approach. Risk portfolio including risks with grades more than a certain threshold is reported to the BoD every two months. Therefore, these risks are also tracked by the BoD through Early Detection of Risks Committee who consolidates the risk assessments conducted by each Group Company</p>
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<p>withdrawal volumes over 1,000mL (excluding rainwater) were defined as High-Risk facility sites. We use water stress data which shows the baseline data as well as future projections. We obtain necessary data according to the different scenarios. We use 3 scenarios; the optimistic scenario (SSP2 RCP4.5), business as usual scenario (SSP2 RCP8.5), and pessimistic scenario (SSP3 RCP8.5).</p>			<p>Board and makes decisions on management actions</p> <p>Risks associated with important decisions are identified and graded. In addition, top management of companies make sure proper precautions are designed, applied and the process is run effectively. Tekfen Group Companies do regular risk assessments in every 2 months and report to the Holding. Risk assessment of high-risk projects, activities, locations, tasks and operational areas are done more frequently.</p>
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W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

We consider substantive financial impact as additional cost or loss of revenue arising out of a disaster, change in market conditions, failure of a product, or similar events.

We consider substantive strategic impact as impacts on management, planning and important initiatives.

However, according to our Corporate Risk Management system, the effect of identified risk is assessed under 5 main impacts, namely:

- o Financial impact
- o Legal impact
- o Reputational impact
- o Operational impact, and
- o Strategic impact

The risk is assessed to have a substantive impact if:

- o Financially; if the risk impact is >5% EBITDA (singular impact, which equals to 10,300 0USD for the reporting period) or >2% of EBITDA (continuous impact, which equals to 5,150 USD). EBITDA for the reporting period is 206,0140 USD.

- o Legally; due to legislative or contractual non-conformities medium level loss of business or fines (please see substantive financial impact definition above)

- o Reputational; risk poses critical level effects on our reputation. Very important negative effects on some stakeholders, very important stakeholder crisis. Continuous bad press on international media and important markets. Situation is critical and cannot be kept under control.

- o Operationally; more than 10 days of disruption in operations, events reducing the performance of employees. For construction projects 10% difference in planned and realized progress of projects.

- o Strategically; Very important impact on strategic plans and their execution. Strategies need to be revised considerably.

If one of the above impacts is assessed to be the impact of any identified risk, the risk is automatically identified to have a substantive impact regardless of its probability of occurrence.

These definitions are applied to our direct operations and while assessing our value chain related risks, we use the reputational, operational and strategic impact definitions given above.

Good quality freshwater is especially vital for our direct operations and important for our value chain, that is why we use these substantive impact definitions on the assessment of our value chain related operations as well.

For risk assessments related to brackish surface water, we only include our direct operations because we only use sea water in our Samsun facility, and the use of brackish surface water in our value chain is not assessed to be of major importance.

Our monitoring process for assets and operations that could generate substantive change is as follows: We identify plants indicated as high (40-80%) or extremely high (> 80%) in terms of projected change in water stress (value in the year 2030 business as usual) results by using the WRI-Aqueduct Water Risk Atlas. Then we cross check whether these sites are considered strategic and/or if they account for more than >5% of EBITDA (singular impact) or >2% of EBITDA (continuous impact). If both criteria are met, then the risks faced by these plants can contribute to a substantive change in the business. In line with our company-wide risk assessment process, substantive risks/impacts with impact grades more than the above-

mentioned thresholds are monitored and reported to the Board of Directors every two months for action determination.

We have used this method on a scenario analysis on our Toros Agri fertilizer plants. As an example to explain the process, our Mersin Plant is located in “Extremely High Risk (>80%)” area in terms of water stress that can affect the Tekfen Holding’s EBITDA more the 2.5% (continuous impact). So we have decided that Mersin Plant might have a substantial financial impact in the future.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	3	1-25	<p>We consider our Agri-Industry operations to be exposed to water-related risks the most. In the analysis, we have used the WRI Aqueduct Water Risk Atlas Tool.</p> <p>We assess the strategic importance of the facilities together with their water stress levels (according WRI) in order to decide which facility shall be identified and monitored as a facility exposed to water risks. Strategic importance is determined by using the facility's contribution to the total Tekfen Holding Revenue and also share of the facility's withdrawal amounts in total holding withdrawals. If the facility’s contribution to revenue is less than 1% it is not included in this list.</p> <p>Two of our fertilizer plants are facing Extremely High: Mersin Plant and Ceyhan Plant risk in terms of water stress.</p> <p>Samsun Plant’s current risk rating is Low. However, as this plant is responsible for 92.74 % of our total water withdrawal and 98.15%of our total discharge for the reporting period, this plant is always assessed to have a potential of substantive impact. This plant is also rated as “Extremely High Risk” in future scenarios, and it also contributes more than 1% to holding revenues.</p> <p>In the previous year Tekfen Agri’s Karaman facility was also included in this list however it’s share in total holding</p>

			<p>revenues is less than 0.25% therefore it is no longer assessed to be a facility that is exposed to water risk for Tekfen Holding.</p> <p>At these facilities (especially Samsun), in the absence of an adequate amount of water, the production will directly be disrupted and the water need cannot be easily supplied from other sources as the amount is substantial. While this constitutes a small number of facilities (3 out of 57 in the reporting period), they represent approximately 55 % of our total global revenue.</p> <p>According to WRI Aqueduct Water Risk Atlas, most of our operations (53 out of 62 locations) are listed as having High to Extremely High water-stressed areas. However, the impact of these operations on Tekfen Holding is not assessed to be substantive, either because they comprise a very small percentage (below 1%) of our global revenue, or because they have a very small consumption figure with respect to our other operations.</p> <p>The contracting projects do not last longer than 3 years. Therefore, they are not reported as risky facilities.</p>
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W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Turkey

Other, please specify

Yesilirmak

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

1-10

Comment

This facility is our Toros Agri Samsun Fertilizer Plant. According to the WRI Aqueduct Water Risk Atlas tool, Samsun Plant is classified as low-risk for Baseline Water-Stress

but it is classified as Extremely High (>80%) in 2030 water stress. This facility is also responsible for 92.74 % of our total water withdrawal and 98.15% of our total discharge, therefore it is always assessed to have a potential of substantive impact.

Country/Area & River basin

Turkey
Other, please specify
Tarsus/Goksu

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

11-20

Comment

This facility is our Toros Agri Mersin Fertilizer Plant.

Country/Area & River basin

Turkey
Other, please specify
Ceyhan

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

11-20

Comment

This facility is our Toros Agri Ceyhan Fertilizer Plant.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Turkey
Other, please specify
Ceyhan, Tarsus

Type of risk & Primary risk driver

Regulatory
Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Closure of operations

Company-specific description

Toros Agri's Mersin and Ceyhan plants only withdraw water from groundwater resources. Currently there are no restrictions to the amount of water that can be used from the groundwater wells.

Both facilities depend highly on water for their production.

According to the analysis we have made using WRI aqueduct, Both Ceyhan and Mersin are in Extremely High (>80%) water stress area. For future projections using business as usual scenario, for 2040, both facilities are in Extremely High water stress.

In the long term, the water stress may be a big issue and regulation around water use may change, the government may impose withdrawal limits or even withdrawal bans especially in dry season, as the water may be prioritized for domestic use.

This may lead to closure of operations for certain periods.

Timeframe

4-6 years

Magnitude of potential impact

High

Likelihood

Very likely

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)

20,000,000

Potential financial impact figure - maximum (currency)

45,000,000

Explanation of financial impact

In the long term, if the water stress becomes a big issue and if the government imposes withdrawal limits or even withdrawal bans especially in dry seasons our Ceyhan and Mersin facilities will not be able to work as they need fresh water for cooling and

production.

Both facilities are located in the Southern Parts of Turkey where summer is very hot and the dry season may last from June till the end of September. Between these months according to 1940-2022 meteorological data:

- Average amount of rain per month varies between a minimum of 7.3 mm (August) to a maximum of 11.9 mm (September) in Mersin
- For Ceyhan (Adana) the average amount of rain per month varies between a minimum of 9.3 mm (August) to a maximum of 19.3 mm (September) in Adana

The costs related to closure of operations for 1 month can be calculated by assumption for Mersin and Ceyhan plants.

The minimum potential financial impact is calculated as 1 month closure of operations in both plants. (approximately 20.00 million USD)

The maximum potential financial impact is calculated as 2 months closure of operations in Ceyhan and 3 months closure of operations in Mersin. (45 million)

Primary response to risk

Increase investment in new technology

Description of response

In the reporting period, we have conducted a number of projects to achieve higher water efficiency and maximize the water reuse/recycle rate in Both Ceyhan and Mersin facilities (asset level) in line with the vision stated in our Water Policy highlighting the alignment with international initiatives such as SDG 6. Both plants also have annual targets to reduce water withdrawals and to reach their targets they have a budget which can be used to invest in new technology.

In Toros Agri Mersin Plant we are implementing a new wastewater treatment and recovery plant which is planned to be operational in 2023. This plant aims to treat the wastewater recycling ammonia and nitrates from the wastewater and rehabilitating the existing demineralization unit in the plant. With this project we are planning to recycle 2.1 million USD worth of CAN/AN fertilizers per year and 171,430 m3 of water per annum. This recycling plant will also have zero discharge.

Cost of response

10,350,000

Explanation of cost of response

The new wastewater treatment and recovery plant investment which will be operational in 2023 will cost around USD 10,350,000.

Country/Area & River basin

Turkey

Other, please specify

Yesilirmak, Ceyhan, Tarsus, Marmara, Akarcay, Akdeniz, Gediz and various other basins in Turkey where agricultural activities takes place

Type of risk & Primary risk driver

Chronic physical
Declining water quality

Primary potential impact

Increased compliance costs

Company-specific description

Nitrogen from a variety of sources can make its way into groundwater and waterways. A certain level of nitrogen is naturally present in the environment and nitrates in low quantities are necessary nutrients. However, high levels of nitrate found in major anthropogenic contributors such as agricultural runoff, nitrogen-based fertilizers, animal manure and sewage pose a problem. High concentrations of nutrients in the water table can cause drinking water to become toxic. Nitrate is one of the most common groundwater contaminants in rural areas.

Nitrates related pollution is caused by the introduction of excessive amounts of nitrogen to surface and ground waters, mainly as a result of agricultural practices. About 50-70% of nitrogen input to water comes from agriculture and nitrate pollution may increase in the coming years (medium-term).

One of the leading agri-environmental indicators is the nitrate pollution of groundwater. Due to the wrong/over-application of fertilizers, along with environmental characteristics such as average temperature and precipitation as co-factors, there is a risk of nitrate pollution in groundwater sources which are likely to get higher over the medium term. Based on the EU Directive, Turkey has a regulation in place for the Protection of Water Against Agricultural Nitrate Pollution. If the nitrate concentration levels get higher, there is a risk of compliance cost to be introduced as part of encouraging farmers and fertilizer producers to adopt sustainable agriculture practices.

Fertilizer production we undertake as part of Toros Agri operations has a high stake in managing nitrate pollution. Therefore, if such a compliance cost is introduced, we may be faced with an additional cost per tonne of nitrogen-containing fertilizer products we produce, and as all of the fertilizers that we produce contain Nitrogen, this means we may face a compliance cost for all of the products of Toros Agri. This will increase our indirect operational costs.

Timeframe

More than 6 years

Magnitude of potential impact

High

Likelihood

About as likely as not

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)

10,940,000

Potential financial impact figure - maximum (currency)

21,880,000

Explanation of financial impact

Toros Agri revenue covering the sales of fertilizers which contain Nitrogen (99.8% of all sales, 100% of Toros agri production contains Nitrogen) was 1.094 Billion USD in 2022. Assuming a minimum of 1% and a maximum of 2% additional compliance cost applied to these products; we would face an additional cost between 10.94 to 21.88 million USD.

Primary response to risk

Engage with customers

Description of response

Supporting agriculture as the biggest privately-owned concern in its industry, Toros Agri not only feels a responsibility to provide farmers with high-quality fertilizers but also undertakes social responsibility projects focused on the development of Turkish agriculture in general and improving the living standards of those whose livelihood is farming in particular.

With the aim of preventing nitrate pollution as well as supporting sustainable agricultural practices, Toros Agri launched a Mobile Training Bus (Toros Farmer Academy) & Mobile Technical Team project in 2018 covering Turkey's predominantly agricultural regions and which has begun spreading the "4R" (the four "rights" of good fertilizer practices: the right source, the right rate, the right time, and the right place) practices/awareness among farmers. By doing so, we aim to prevent nitrate pollution of water at the very focal point, farming practices.

Toros Agri also has developed an application for the use of farmers. "Toros Farmer Smart Agriculture and Fertilization Application", which was developed by Toros Agri specifically for smart phones and tablets and offered to the farmers for free, is an agricultural decision support application that combines weather forecasting, soil and plant data and develops suggestions for the activities of farmers.

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. 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 TÜBİTAK.

TÜBİTAK 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.

Cost of response

2,347,412

Explanation of cost of response

The cost of the response to this risk includes the cost of Toros Farmer App (around 10,000 USD) and the cost of technologies, analysis and implementation supports for agricultural activities, meetings, trainings, joining expos, etc. (around 285,000 USD)

The initial investment cost of R&D Center was USD 715,000, and R&D budget dedicated to the Center was USD 895,641 in 2021, And 441,771 USD in 2022 in the reporting period.

Total cost of response is calculated as: $10,000 + 285,000 + 715,000 + 895,641 + 441,771 = 2,347,412$ USD.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Turkey

Other, please specify

Yesilirmak, Ceyhan, Tarsus, Marmara, Akarcay, Akdeniz, Gediz and various other basins in Turkey

Stage of value chain

Use phase

Type of risk & Primary risk driver

Acute physical

Drought

Primary potential impact

Disruption to sales due to value chain disruption

Company-specific description

According to WRI Aqueduct Water Risk Atlas, projected change in water stress in 2030 (according to the optimistic scenario, SSP2 RCP 4.5) is high (40-80%) and extremely high (more than 80%) in many parts of Turkey. In addition, the majority of Turkey has a medium to high risk in terms of drought severity.

According to a report named "Changing Climate, Transforming Agriculture" published by Turkish Ministry of Agriculture and Forestry in 2021, water stress due to climate change will be a major problem for Agriculture.

Our country's meteorological and agricultural drought risk is increasing day by day. While the average temperature for many years was 14 degrees in the first 8 months in Turkey, the average temperature in the same period this year was 15.7 degrees. Droughts, which were once every 10 years before, will appear every 5-6 years from now on. Agriculture, which uses three quarters of our water, is one of the sectors that will be most affected by this process

As a result of increasing temperatures the agricultural lands would need more irrigation, which will result in depletion of water resources. Even if there is enough water to irrigate the crops, there is still a very high possibility that the plants will enter into heat stress resulting in a decrease in yield.

Therefore, Toros Agri's most important customers (farmers) will be affected severely because of water-related problems in the medium to long term. The impact on agriculture due to drought may result in a reduction of Toros Agri's sales in solid fertilizers.

Timeframe

More than 6 years

Magnitude of potential impact

High

Likelihood

Likely

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)

55,000,000

Potential financial impact figure - maximum (currency)

111,000,000

Explanation of financial impact

Toros Agri fertilizer sales are app. USD 1,100 million based on 2022 figures. When we use WRI Aqueduct Water Risk Atlas, the projected change in water stress in 2030 compared to 2020 will be 1.4 to 2 times higher. That means farmers will be adversely affected. Some of the farmers may stop farming because of water-related problems.

The impact on the water stress on the farmers may result in a reduction of sales in solid

fertilizers. Therefore, a 5%- 10% reduction (around USD 55.00 million- USD 110.00 million) in Toros Agri revenues were considered based on 2022 figures .

Primary response to risk

Direct operations
Develop new products and/or markets

Description of response

A Research and Development Center was established in Toros Agri. The aim is to develop new and innovative products that require less water and avoids water pollution.

Special fertilizers, developed by Toros Agri, are products that are completely water-soluble and are being used in conjunction with modern irrigation techniques such as drip and rain irrigation. Drip irrigation is becoming more and more common due to the lack of enough water sources. Therefore we anticipate an increase in special fertilizer demand due to the increased adoption of modern irrigation techniques which will extend our existing market. Toros Agri considers them a high potential product group.

The global specialty fertiliser market, is estimated to grow by 5.8% until 2025. The size of the water-soluble fertiliser market in Turkey, which is thought to be 190,000 tons in 2022, is estimated to reach 210,000 tons in 2023. This presents us with an opportunity to increase our revenues through access to new and emerging markets. In 2022, Toros Agri sales of specialty fertilisers have decreased by 45% y-y to 51,085 tons on the back record-high prices globally.

Cost of response

2,052,412

Explanation of cost of response

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. With 28 full time employees, 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 TÜBİTAK.

TÜBİTAK 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.

The global specialty fertiliser market, is estimated to grow by 5.8% until 2025. The size of the water-soluble fertiliser market in Turkey, which is thought to be 190,000 tons in 2022, is estimated to reach 210,000 tons in 2023 . This presents us with an opportunity to increase our revenues through access to new and emerging markets. In 2022, Toros Agri sales of specialty fertilisers have decreased by 45% y-y to 51,085 tons on the back record-high prices globally.

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 895,641 in 2021 and USD 441,771 in 2022) in the reporting period.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

An explanation of why this opportunity is considered strategic:

According to WRI Aqueduct Water Risk Atlas, the projected change in water stress between 2020 and 2030 (SSP2 RCP 4.5 scenario) is High (40-80%) and Extremely High (>80%) in many parts of Turkey. That means, existing and traditional products, production techniques will have to change soon. Therefore, as a leading company in the Agri-Industry business area, the development of new fertilizers is a strategic opportunity for Tekfen.

An explanation of the action to realize the opportunity:

To realize this strategic opportunity, Toros Agri authored a first in the country's fertilizer-

manufacturing industry by opening an R&D center at its Mersin plant. This plant, which has been accredited by the Ministry of Industry and Technology, is the first center of its kind in Turkey devoted to developing more efficient and water-soluble liquid fertilizers which will help to improve agricultural productivity.

A case study or example of the strategy in action:

One of the first developments of the R&D Center is special fertilizers that are completely water-soluble and are being used in conjunction with modern irrigation techniques such as drip and rain irrigation. Drip irrigation is becoming more common due to the lack of enough water sources. Therefore we anticipate an increase in speciality fertilizer demand due to the increased adoption of modern irrigation techniques which will extend our existing market. Toros Agri considers them a high potential product group. In the reporting year, sales of specialty fertilizers went down by 64% with respect to 2021.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

219,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Specialty fertilisers are water-soluble fertilisers 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 grow of the water-soluble fertiliser market. The global specialty fertiliser market, is estimated to reach 20.9 billion USD by 2025, with a growth of 5.8%. 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 fertiliser 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 fertiliser market. The size of the water-soluble fertiliser market in Turkey, which is thought to be 155,000 tons in 2021, is estimated to reach 160,000 tons 2022.

Toros Agri, the pioneer in the specialty fertiliser industry in Turkey, is one of the most remarkable players in the field. The global specialty fertiliser market, is estimated to grow by 5.8% until 2025. The size of the water-soluble fertiliser market in Turkey, which is thought to be 190,000 tons in 2022, is estimated to reach 210,000 tons in 2023. This presents us with an opportunity to increase our revenues through access to new and emerging markets. In 2022, Toros Agri sales of specialty fertilisers have decreased by 45% y-y to 51,085 tons on the back record-high prices globally.

The financial impact is calculated using the specialty fertilizer production target in our 2030 strategic plan which is 537,579 tons. (444,282 tons more than the current reporting year)

Assuming the average price per ton of specialty fertilizers will remain the same this extra production volume has a potential financial impact of 219 Million USD by 2030.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Toros Agri Samsun Plant

Country/Area & River basin

Turkey

Other, please specify

Yesilirmak

Latitude

41.241734

Longitude

36.457503

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

110,982

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

4,292.66

Withdrawals from brackish surface water/seawater

106,683.18

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

5.714

Total water discharges at this facility (megaliters/year)

110,981.55

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

106,683.18

Discharges to groundwater

0

Discharges to third party destinations

4,298.36

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Lower

Please explain

Tekfen has identified three facilities, namely Toros Agri Samsun Plant, Toros Agri Mersin Plant, and Toros Agri Ceyhan Plant, which are exposed to water risks that could potentially have a significant financial or strategic impact on their business. In response to question W5.1 of the CDP Water Security questionnaire, Tekfen has provided information on water withdrawal, consumption, and discharge for these specific facilities. By reporting these water-related metrics, Tekfen demonstrates a commitment to understanding and managing its water usage and environmental impact. This transparency allows stakeholders to assess the company's water stewardship efforts and the effectiveness of their strategies for sustainable water management. By monitoring and reporting water-related data, Tekfen can identify opportunities for water conservation, efficiency improvements, and risk mitigation, thereby contributing to the preservation of water resources and promoting long-term water security in the regions where their facilities operate.

Facility reference number

Facility 2

Facility name (optional)

Toros Agri Mersin Plant

Country/Area & River basin

Turkey

Other, please specify

Tarsus/Goksu

Latitude

36.819615

Longitude

34.673121

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

2,975.15

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

2,975.15

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

1,070.96

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

1,070.96

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

1,904.19

Comparison of total consumption with previous reporting year

Lower

Please explain

Tekfen has identified three facilities, namely Toros Agri Samsun Plant, Toros Agri Mersin Plant, and Toros Agri Ceyhan Plant, which are exposed to water risks that could potentially have a significant financial or strategic impact on their business. In response to question W5.1 of the CDP Water Security questionnaire, Tekfen has provided information on water withdrawal, consumption, and discharge for these specific facilities. By reporting these water-related metrics, Tekfen demonstrates a commitment to understanding and managing its water usage and environmental impact. This transparency allows stakeholders to assess the company's water stewardship efforts and the effectiveness of their strategies for sustainable water management. By monitoring and reporting water-related data, Tekfen can identify opportunities for water conservation, efficiency improvements, and risk mitigation, thereby contributing to the preservation of water resources and promoting long-term water security in the regions where their facilities operate.

Facility reference number

Facility 3

Facility name (optional)

Toros Agri Ceyhan Plant

Country/Area & River basin

Turkey

Other, please specify

Ceyhan

Latitude

36.92355

Longitude

35.983394

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

556.42

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

556.425

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

83.46

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

83.464

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

472.96

Comparison of total consumption with previous reporting year

Lower

Please explain

Tekfen has identified three facilities, namely Toros Agri Samsun Plant, Toros Agri Mersin Plant, and Toros Agri Ceyhan Plant, which are exposed to water risks that could potentially have a significant financial or strategic impact on their business. In response to question W5.1 of the CDP Water Security questionnaire, Tekfen has provided information on water withdrawal, consumption, and discharge for these specific facilities. By reporting these water-related metrics, Tekfen demonstrates a commitment to understanding and managing its water usage and environmental impact. This transparency allows stakeholders to assess the company's water stewardship efforts and the effectiveness of their strategies for sustainable water management. By monitoring and reporting water-related data, Tekfen can identify opportunities for water conservation, efficiency improvements, and risk mitigation, thereby contributing to the preservation of water resources and promoting long-term water security in the regions where their facilities operate.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

% verified

76-100

Verification standard used

Samsun, Ceyhan, Mersin 100% Verified.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water withdrawals – volume by source

% verified

76-100

Verification standard used

Samsun, Ceyhan, Mersin 100% Verified.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water withdrawals – quality by standard water quality parameters

% verified

76-100

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 97.40%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water discharges – total volumes

% verified

76-100

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 99.04%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water discharges – volume by destination

% verified

76-100

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 99.04%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water discharges – volume by final treatment level

% verified

76-100

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 99.04%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 99.04%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

Water consumption – total volume

% verified

1-25

Verification standard used

Verification only for Samsun and Ceyhan facilities which make up 20%.

EN ISO 14046:2014 Environmental management-Water footprint-Principles, requirements and guidance and WFN Water Footprint Assessment Manual, Republic of Turkey Water Pollution Control Regulation, Republic of Turkey Regulation on Water Intended for Human Consumption

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitments beyond regulatory compliance Reference to company water-related targets Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	Rationale for the scope selected: Water is used for cooling, production, irrigation, testing, cleaning, and hygiene purposes during Tekfen's activities. Due to the global importance of water, Tekfen Holding has published its Water Policy that binds Tekfen Group Companies. Therefore, Company-wide selection has been made. Defining water as the source of life itself, we operate in business areas such as agri-industry and contracting where water is a vital source for the continuation of our operations together with the need to maintain WASH service provision for all our employees. This is why we implement our water policy throughout our entire company including our construction projects. Overview of the policy content: Tekfen Holding has a company-wide Water Policy that defines the Group's water-related principles and commitments. On the Water Policy that is undersigned by our CEO, we are committed to identify and assess water-related risks; integrate water risks into its business strategy, manage and report water risks; set meaningful goals and targets at business units and implement innovative business solutions to achieve these goals and targets;

			<p>monitor, measure and analyze water performances and continually reduce its water footprint.</p> <p>Our publicly available Water Policy can be found at our website and outlines our objective and lays out the path leading to fundamental water-related aspects such as setting long term targets, supporting water stewardship at all our operational locations, enabling innovation that achieves water performance improvement, etc.</p> <p>Tekfen Holding takes climate change and water-related impacts very seriously and continuously updates its policies with relevant and up-to-date issues to become a leading sustainable company.</p>
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W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual or committee	Responsibilities for water-related issues
Board Chair	<p>All of the final decisions related to water issues are approved by the Board of Directors, which is led by the Chairman of the Board. Some of the responsibilities of our Board Chairman include approval of targets and goals, strategies, management plans for identified risks and opportunities. Board Members are directly informed on water-related issues in Tekfen Holding Board Meetings. 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 water-related issues closely. Therefore, we can say that our Chairman of the Board is the highest responsible person for water-related issues. In 2020, one major water-related decision approved by our Board Chair is starting a cooperation with TUBITAK (Scientific and Technological Research Council of Turkey) to develop projects on sustainability issues like water management and climate change. Another decision is the approval of the investment in Doktor farm management systems in Tekfen Agri. With the help of this system, Tekfen Agri is able to monitor the plantations closely. One of the benefits of this system is the use of compiled data for determining the water needs of the plantations to prevent excess irrigation thus reducing water consumption. In 2021 one of the major decisions is the implementation of water withdrawal-related targets for our Toros Agri plants.</p>

Board-level committee	<p>Committees have been set up at the Company to assist the BoD with the proper fulfillment of its duties and responsibilities. Established as per the legislation, two of these committees namely Early Detection of Risk Committee (RC) and the Corporate Governance Committee (CGC) assist the BoD on water & climate-related issues. BoD, RC and CGC's water-related responsibilities include developing strategies and overseeing the management of water-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, CEO, Risk Director, Vice-Presidents and Risk Managers of the Group Companies are also present. The RC identifies risks (including water-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 water-related issues except risk management are within the scope of CGC. In order to make sustainability a part of the corporate governance concept, the Sustainability Committee was founded to serve under the CGC. The Committee's works and progress are reported to the BoD annually. Climate and water-related issues are also addressed by the BoD on a special agenda.</p>
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W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions, mergers, and divestitures</p> <p>Overseeing major capital expenditures</p>	<p>Board Members are informed regularly on climate- and water-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.</p> <p>Holding Risk Committee (RC), which is chaired by one of the independent Board Members, meets every two months. High risks evaluated and</p>

		<p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing innovation/R&D priorities</p> <p>Setting performance objectives</p>	<p>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.</p> <p>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. In September 2017, the Sustainability Committee (SC) was established and its Chairman is the Group Companies President (CEO).</p> <p>In 2019 the Environment Working Group was established as one of the 5 working groups that report to the SC.</p> <p>The Sustainability Committee is also a subcommittee of the Corporate Governance Committee. Sustainability Committee reports critical issues at least once a year to the Corporate Governance Committee. The Corporate Governance Committee 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 targets and/or goals 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.</p> <p>Changes in emissions & water usage data are also reported to the Board of Directors annually.</p> <p>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.</p> <p>One of these investment decisions was to build a new wastewater treatment and recovery plant at Toros Agri Mersin facility. This new plant will work in a fully closed cycle and convert high ammonia and</p>
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			<p>nitrate-containing condensate waters into ammonium nitrate (18-25%) solution and low-conductivity ($\leq 0.1 \mu\text{S}$) demineralized water. This recycling plant also has zero discharge.</p> <p>This process is very effective in terms of ammonia removal and ammonium nitrate recycling and is a very trustworthy and secure system.</p>
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W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	We assess the competence of Board Members according to their past experiences and memberships in environmental NGOs. For the reporting year we have one Board Member who is assessed to be competent on water-related issues as he is one of the founding members of TEMA foundation (Turkish foundation for combating erosion, reforestation and the protection of natural resources).

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Our CEO presides over management. CEO reports to the Holding Board of Directors (BoD) & CEO's contact point in the BoD is the Board Chair. CEO has the highest management responsibility for water. He is a permanent participant in BoD meetings which are held at least 4 times a year. Critical water related issues like risks related to water stress, future trends in water demand are brought to the BoD agenda through the

CEO.

Water-related responsibilities: Water related goals and strategic directions are determined by Board Chair with the collaboration of BoD. As the head of management, CEO's main responsibility is to turn these high-level goals & strategic decisions into reality. He focuses on risks& opportunities, investments in water stress, water intensive companies & strategic topics like assessing the future trends in water-demand, improvement options etc. CEO's signature is also included in the Water Policy, where principles & commitments regarding water management are disclosed.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	In 2019 we have introduced a new performance assessment system, in which we use a software namely "Pi Performance Management System" which is developed for Tekfen. In this new system water-related issues are also one of the KPI's of almost all white-collar employees. Details are given under question W6.4a

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Other C-suite Officer Vice President responsible for the Production of Fertilizer	Reduction of water withdrawals – direct operations		Water is vital for our direct operations and is used intensively at Chemical Industry Group for mainly cooling of fertilizer plants and process as well. In Toros Agri, Vice Presidents responsible for the Production of Fertilizer has a target to reduce water withdrawal by 3% in a year. The rate of achievement of this target directly affects the lower-level executives, as all of the targets

				are interconnected. The target and its level of achievement are controlled by a software program. Achievement of annually set/revised targets and the Company's success directly contribute to the Corporate Executive Team's performance score, resulting in monetary reward in the form of an increased salary or a bonus.
Non-monetary reward	No one is entitled to these incentives			

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, other

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Tekfen Group's main strategy is determined by the Holding BoD. Group Companies prepare 10 and 3-year strategic plans, which are in line with this strategy. These strategic plans are approved by the Group VPs & CEO. The responsibility for the implementation of the approved plans lies with the General Managers. Therefore, all practices are consistent with the Holding's strategy.

Compliance with the strategy determined by the Holding is carried out by the Internal Audit Departments reporting to the BoD. Group VPs & CEO are also responsible for ensuring compliance.

Principles & commitments related to water are published in the Water Policy. Compliance with the Water Policy is the responsibility of each company's General Manager.

It is the responsibility of HSE Department Managers in the Company/Workplaces to ensure compliance with water-related policies, legal regulations & other conditions determined by Tekfen Holding. The Holding, periodically conducts HSE audits to ensure compliance. The result of the audit carried out by the Holding HSE Coordinator is also reported to the CEO. The follow-up of the actions determined after the audit is carried out by the Holding HSE Coordinator. The CEO is informed about the actions that are not completed on time.

If inconsistencies prevail, issues are escalated to Group Company GM's and Group VPs with proposals to resolve them. If the inconsistencies cannot be resolved at this level, the situation is reported to the CEO.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	<p>Baseline water stress, flood occurrence, drought severity, groundwater stress, regulatory and reputational risks, current and future market opportunities are mainly used to determine long term business objectives.</p> <p>We used the predictions of international tools (e.g. WRI Aqueduct Water Risk Atlas) and studies while setting our goals, strategies, and financial planning. We have determined that the development of new fertilizers suitable for future conditions is vital for us. Another concern is access to good quality and the necessary amount of water, stakeholder pressure, and brand value loss because of water-related issues. Therefore, water-efficient production, building environmentally friendly projects are another long-term objectives for us.</p> <p>For example, we have published Water Policy in 2017 which defines principles and commitments including water risk assessment, integration of risks into strategy, goal and target setting for water management. We have set an objective to invest in R&D projects and established an R&D Center to facilitate the development of water-soluble fertilizers requiring less water in usage</p>

			<p>phase. Commercialisation of these products will provide us a new market. Moreover, Contracting Group has committed to develop all new building projects with LEED Green Building certification to achieve value chain water efficiency.</p> <p>For this reason, on average 11-15 years was chosen for the time horizon for water-related issues affecting our business objectives.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	<p>We developed our Sustainability Strategy in 2018 which includes water management & reported it in our first Sustainability Report in 2018. Our Corporate Risk Management includes risks related to water security. We have established an HSEQ Coordination Group formed by company's HSE representatives. Head of HSEQ Coordination Group reports HSE related issues, including water security, regularly to the Sustainability Committee and critical issues are reported to the Board of Directors via Corporate Governance Committee for action. In addition, water security issues are managed more systematically since the launch of our Water Policy.</p> <p>Toros Agri has initiated a new project at its Samsun Plant with the aim of minimizing water consumption by implementing water recycling for the cooling of ammonia storage facilities. The project, expected to be completed in 2023, is projected to result in an annual water saving of 907,200 m3, as well as an energy saving of 259 MWh and a total financial saving of approximately 1 million TL. The amount of water to be saved is equivalent to the one-year water consumption of 3,000 households.</p> <p>We also made a large investment in an R&D Center in our Mersin plant. We anticipate consumer behavior to shift to more efficient fertilizers using less water. Our intention is to exploit this potential market via R&D activities held in this center.</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>Water related issues are always considered in our financial planning.</p> <p>In our workplaces, we consider the costs of quality analysis, waste water treatment plants & necessary WASH services. In our facilities, we make constant investments in new technology to minimize our water footprint. We do this because we anticipate higher water</p>

			<p>prices in the future.</p> <p>By replacing membrane at demi water facility, renewal of compressors, collection and reuse of surrounding process waters in Samsun Plant, we save around 1000 ML of water per year.</p> <p>In Tekfen Agri, we are investing in Metos TR Systems which involves, installation of fully sensed main meteorological stations in all of our plantations, parcel-based soil humidity sensor integration & plant protection applications monitoring.</p> <p>We used the predictions of the calculation tools&studies while setting our goals, strategies & financial planning. The studies&risk assessment tools give us a long-term perspective. This is why 11-15 years was chosen as the time horizon for water-related issues. The establishment of a new wastewater treatment plant in the Mersin facility was also included in the investment plan of Toros Agri with the aim of maximizing our water recycling ratio&therefore reducing withdrawal. This new plant is included in our financial planning with a CAPEX estimation of 10 Million USD and we are waiting for construction permits to start the construction of this wastewater treatment plant.</p>
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W7.2

(W7.2) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

193.56

Anticipated forward trend for CAPEX (+/- % change)

Water-related OPEX (+/- % change)

114.43

Anticipated forward trend for OPEX (+/- % change)

Please explain

Water-related CAPEX (2022): 184,658.95\$ and OPEX (2022): 552,322.75\$

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Climate-related	<p>We considered IPCC RCP 4.5 as a realistic scenario for the impacts of climate change in Turkey.</p> <p>According to RCP 4.5. scenario, 2013-2040, 2041-2070, 2071-2099 are considered as 3 defining time periods. According to the scenario, Turkey will face 2 to 3 degrees in Celsius increase in mean temperature during 2013-2040 and up to 4 degrees Celsius in later periods. Reductions in mean precipitation are also expected.</p>	<p>We consider these impacts especially important in our Agricultural Production Group and Chemical Industry Group. Our direct operations (Tekfen Agri orchards) and value chain (fruit suppliers and farmers who use our fertilizers) will be directly impacted as a limited amount of water resources available will need to be used more efficiently.</p> <p>According to RCP 4.5 scenario, our Mersin and Ceyhan Plants are likely to face pressuring water stress beyond 2046.</p>	<p>The projections of RCP 4.5 climate scenario & its possible implications especially in southern Turkey, has encouraged us to evaluate water risks & adjust our strategy over long-term (5-30 years).</p> <p>As a result, we have invested in an R&D Center in Mersin to develop water-soluble special fertilizers that can be used with modern irrigation methods such as drip & rain irrigation. Via this investment, we are looking to capitalize on the impacts of climate change in Turkey.</p> <p>Climate change will have a considerable impact on agriculture. In order to support resilience of the sector, as part of Tekfen Agri’s first international collaboration under the EU</p>

				<p>Horizon 2020 Programme, we participate in PRIMA (Partnership For Research and Innovation in the Mediterranean Area) GENDIBAR Project, aiming to ensure sustainable agricultural practices in barley production. Increasing productivity while achieving energy & water savings during production. Tekfen Agri is the only Turkish company engaged in this project. This project started on 2019 and will end in 2022.</p> <p>We evaluated only Turkish operations because our only overseas operations are the contracting projects of Tekfen Construction which last about 3 years. As our climate-related scenario analysis impacts our long-term strategies, we do not include Tekfen Construction projects under this assessment. However, these projects are assessed individually at the design phase against any climate change related impacts under the detailed EIA study.</p>
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W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

We use an internal water price, especially for our water-related risk analysis. Along with basic WASH services provision needs, water is an indispensable raw material for our operations. Water is being used in fertilizer production plants in Samsun, Mersin, and Ceyhan. Water is also being used for producing stone fruit as well as saplings in Tekfen Agri premises spreading across Western Turkey.

As a result of the fact that water stress is increasing in Turkey, a potential increase in (or the introduction of) water prices are likely to be implemented.

We use an internal water price of min 0.17 USD and max. 1.46 USD to calculate the potential impact of this risk. We revise our calculations annually using the prices published by ISKI (Istanbul Water and Sewerage Administration).

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	Important but not an immediate business priority	Within the scope of our sustainability studies we implement a materiality analysis, and according to this analysis classification of products as low water impact is assessed not to be a material priority.

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

Yes

W8.1a

(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category
Water pollution	Yes
Water withdrawals	Yes

Water, Sanitation, and Hygiene (WASH) services	Yes
Other	Yes

W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

Target reference number

Target 1

Category of target

Water use efficiency

Target coverage

Business activity

Quantitative metric

Other, please specify

% of orchards that have implemented smart irrigation systems

Year target was set

2019

Base year

2019

Base year figure

10

Target year

2023

Target year figure

6,201

Reporting year figure

5,876

% of target achieved relative to base year

94.7504441932

Target status in reporting year

Underway

Please explain

Target: To implement smart irrigation systems in 100% of Alanar orchards.

Importance: Alanar has orchards in 8 different locations with a total area of 6,201

decares, using 39% of the total water withdrawn (excluding sea water). Water, which is a major input in agriculture has vital importance for Alanar, hence the efficient use of existing water is of utmost importance for us. Monitoring weather&measuring soil moisture levels are key factors for the success of agricultural operations. Managing irrigation with the meteorological stations&humidity sensors gives us a greater insight into protecting our water resources. The weather stations predict the micro-climate in real-time by sensing moisture in the air, changes in temperature and wind speed amongst other indicators. Smart irrigation systems are a recommended sector best practice.

Rationale: Monitored at Tekfen Agri orchards (business) since the target related to the completion of smart irrigation system at Tekfen Agri's orchards

Total area of Alanar orchards is 6,201 decares. In 5,876 decares which makes 94.76% of total orchard area we have implemented smart irrigation systems.

Target reference number

Target 2

Category of target

Water recycling/reuse

Target coverage

Company-wide (direct operations only)

Quantitative metric

Increase in water use met through recycling/reuse

Year target was set

2019

Base year

2019

Base year figure

0.01

Target year

2025

Target year figure

5

Reporting year figure

1.01

% of target achieved relative to base year

20.0400801603

Target status in reporting year

Underway

Please explain

Target: To increase the percentage of total reused/recycled water to 5% with respect to total withdrawals until the end of 2025.

Importance: With increased water stress level in water basins, it is becoming more and more important for the water withdrawn to be used more than once. Especially in our fertilizer production plants and permanent facilities of Tekfen Agri, recycling/reusing of the withdrawn water will help reduce the water stress in the basin.

Rationale: We are trying to reach this target by trying to increase the quality of discharge water of treatment units and categorizing the water in Tekfen construction as green-grey and blue water.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

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

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

	Plastics mapping	Please explain
Row 1	Not mapped – but we plan to within the next two years	

W10.2

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

	Impact assessment	Please explain
Row 1	Not assessed – but we plan to within the next two years	

W10.3

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

	Risk exposure	Please explain
Row 1	Not assessed – but we plan to within the next two years	

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

	Targets in place	Please explain
Row 1	No – but we plan to within the next two years	

W10.5

(W10.5) Indicate whether your organization engages in the following activities.

	Activity applies	Comment
Production of plastic polymers	No	
Production of durable plastic components	No	
Production / commercialization of durable plastic goods (including mixed materials)	No	
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	No	
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

W11. Sign off

W-FI

(W-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.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water 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 understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

No

Please confirm below

I have read and accept the applicable Terms