DURAN DOĞAN BASIM VE AMBALAJ A.Ş. - Climate Change 2020

C0. Introduction

C0.1

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

Duran Dogan Packaging was established in 2005 by the merger of the two most experienced and well-known companies in the packaging sector: Duran Ofset and Dogan Packaging. Ali Duran established Duran Ofset, in 1953. The company soon became most recognized and well respected in the sector by introducing new and various packaging solutions. The company has been quoted in Borsa Istanbul since 1991 (the Istanbul Stock Exchange by then).

Duran Doğan and LGR Amballages, one of the biggest carton packaging manufacturers of Europe, became partners in 2013. The two companies combined their experience and knowhow to become the leading packaging converter in the sector. Presently, the Company has over 250 qualified employees to provide the best quality at the best service level. Duran Dogan‘s customer portfolio includes leading global brands and companies, expecting the highest quality for their packaging. At Duran Dogan, all our internal processes and external dealings are managed by the global enterprise resource planning software package SAP (Systems, Applications, and Products). The production data are collected realtime from the manufacturing machines via OM Partners production & planning software. This software ensures not only the optimum production plan, but also the ability to respond to our customer demands in a short period of time. In addition to those, all company internal processes are now being monitored by EBS system, which allows Duran Dogan to monitor yearly performance figures online.

Duran Dogan is a member of ECMA and IPGCC. The Company has two production sites Hadımköy and Omerli within the Istanbul Metropole with a total closed area of about 18 000 sqm and 6 000 sqm, respectively. Both manufacturing sites are equipped with central air conditioning providing 24-hour atmosphere with constant temperature and moisture. Duran Dogan is accredited with ISO 9001, ISO 14001, HACCP, BRC/IOP, AIB and FSC, OHSAS 18001, SEDEX, DISNEY certificates, guaranteeing the most hygienic environment for producing direct food contact and pharmaceutical packaging. Omerli site produces inline corrugated cardboard, E+F+G+B wave corrugated cardboard. Export sales represent 50% of the overall sales. Main countries of export are the U.K, Ireland, Belgium, France, U.S.A and Russia.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	1 year

C0.3

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

Turkey

C0.4

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

TRY

C0.5

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

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	CEO of the Company and also has been appointed as Executive Board Representative in the Sustainability Committee. He leads the committee. His main responsibility is to identify direction of DDPack for Climate Change Related issues and ensure transparency. Release of climate-related information is approved by General Manager. He is responsible for alignment of company's overall business strategies with climate strategy.
Chief Financial Officer (CFO)	CFO is the second executive board member who is assigned as a sustainability committee member. She supports committee for resource needs. She is also responsible for reliability of climate related information in SAP system.
Other, please specify (Administrative Affairs Manager)	Administrative Affairs Manager is a member of the committe. He is responsible for choosing and managing company cars, personel service bus company. He ensures to choose low carbon solutions for the company. He is also responsible for reliability of climate related information of company cars and service buses.
Other, please specify (Technical Manager)	Technical Manager is one of the key member of sustainability committee. His main responsibilities are to manage maintenance activities and establish/manage an infrastructure that allows most efficient natural gas, water, electricity usage. He is responsible to monitor climate related projects within the company.
Other, please specify (Quality Assurance Manager)	QA Manager is Project Coordinator for CDP in the sustainability committee. She organises committee meetings and ensures appropriate agenda for the meeting. She coordinates collection of climate related information from departments and also coordinates preparation of CDP report.
Other, please specify (Human Resources Manager)	Human Resources Managers coordinates climate related awareness programmes. He is responsible for raising climate change awareness among employees.
Other, please specify (Planning Manager)	Planning Manager ensures reliability of production performance records in the committee.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding major plans of action Reviewing and guiding annual budgets Reviewing and guiding business plans Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Sustainability Committee meets every six months, therefore performance monitoring is done in every meeting.
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding risk management policies Setting performance objectives	<Not Applicable>	Sustainability Committee meets every six months, therefore yearly reviews are done every other meeting.
Sporadic - as important matters arise	Reviewing and guiding strategy Reviewing and guiding major plans of action Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	<Not Applicable>	If any important matters arise such as legal, financial or operational, then committee meeting covers these issues.
Scheduled – all meetings	Reviewing and guiding risk management policies Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues Other, please specify (Reviewing performance against procedures)	<Not Applicable>	Duran Doğan has set up the Integrated Management Systems in compliance with ISO 14001 standard. In order to ensure the operability of the system, check lists for the internal audits were set. The auditing processes for the integrated management system is carried out by the internal control department of the company. Non-compliance issues are reported to the board. For the urgent and important issues detected in the audits, the committee may gather for extra meetings and make decisions to prevent non-compliance.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Chief Financial Officer (CFO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Risk committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Safety, Health, Environment and Quality committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly

C1.2a

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

Sustainability Committe has been appointed by the Board of Directors which include 2 of the board members and all of the key managers. Committe is responsible for approval of DDPack climate change policy, strategy, climate change goals, targets and related investments according to Climate Change Risk and Opportunity Assessments carried out regularly.

Meeting decisions are communicated in the company boards and meetings. Committee reports carbon performance to the Board yearly during Management Review Meetings.

The goals of the sustainability committee is assessed on an annual basis in factories. Sub-fractures of the targets are examined in the plants and different targets are given to the departments. In this case, our "On-Site Inspection" meetings held in our factory are presented to the general directorate every 6 months. In addition to this targets are evaluated during monthly in Health, Safety and Environment Committee.

Information and cont. systems used by the board to prepare climate-related information and financial management data is taken from company's SAP system and emission data is verified by an independent body (RINA). Climate-related policies, strategy, and information are delegated to the managers within committee for implementation throughout the company. Release of climate-related information is approved by CEO.

We believe climate related issues must be managed at the highest level, therefore established this committee with full responsibility and authority to evaluate risks and opportunities, decide on necessary actions and monitor the progress on these actions, then report the performance to the Executive Board.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment
All employees	Monetary reward	Energy reduction target Efficiency target	We have committees on different topics and one of them is Health, Safety and Environment Committee. This committee have targets to improve overall environmental performance. If the targets are realized, The committee members are awarded with a plaquette by CEO. Performance payments are applicable for all staff according to the level of achieving their targets. These targets are set yearly, and measured and paid monthly. Performance targets include; Reduced scrap sheet amount, Increasing of machinery speeds, Reducing production downtime, Reducing water and energy usage
All employees	Monetary reward	Energy reduction project	We have an established system for innovative ideas. We evaluate the feasibility of all ideas including energy efficiency. If the idea is found to be useful and applied then, a special bonus to the owner of the idea is given.
All employees	Non-monetary reward	Emissions reduction target Behavior change related indicator	Employees who are working to raise the awareness of climate change are encouraged through recognition with the "sustainability king and queen rewards", which are given annually. The selection is done through an online questionnaire where all employees can enter and vote for the employee whom they think is the most sustainability oriented person.
Business unit manager	Monetary reward	Emissions reduction target	Climate change related KPIs are set for managers such as: energy saving, emission reduction, awareness raising indicators and targets. Managers are evaluated according to these indicators, and promotions are awarded.
Energy manager	Monetary reward	Energy reduction project	Energy managers working within the DDPACK, who are responsible for the development of energy projects and procurement, including establishment and implementation of renewable energy projects, energy efficiency projects and the establishing and meeting operational emissions reduction (GHG) targets, have a component of their total compensation based on these activities. Also it is involved that communicating climate change issues and developing grassroots programs supporting emission reduction targets.
Process operation manager	Monetary reward	Energy reduction target	Production chiefs have responsibility for all aspects of production plant operations. Their performance is judged by annual metrics (e.g. safety, environment etc). The annual performance of production staff is based on the energy reduction target is evaluated
Environment/Sustainability manager	Monetary reward	Efficiency target	Environment and Sustainability Manager is responsible for a wide range of activities. This role's performance is measured by several KPIs including reduction of emissions, reduction of supply chain impacts.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	1	2	These time frames are linked to our ISO 14001 Environmental Management System. These risks are taken directly to our Environmental Management Program together with all the other environmental risks. Actions are decided and monitored according to ISO 14001 Monitoring and Measurement Procedures.
Medium-term	3	4	Our Medium and Long term risks are also considered in Environmental Management Program. In addition to this, these horizons are also linked to our business strategy plans and business continuity plans.
Long-term	5	6	Our Medium and Long term risks are also considered in Environmental Management Program. In addition to this, these horizons are also linked to our business strategy plans and business continuity plans.

C2.1b

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

Our business relies on forest as the source of raw materials. Sustainable use of forests are important in that aspect and we do our best to get raw materials from certified sources. Climate change will likely alter the frequency and intensity of forest disturbances, including wildfires, storms, insect outbreaks, and the occurrence of invasive species. The productivity and distribution of forests could be affected by changes intemperature, precipitation and the amount of carbon dioxide in the air. Such changes in the forests will have material impact on the security of supplies and will cause unprecedented price fluctuations something which we believe hard to predict, control and manage. That is why we do our outmost to counter these negative effects by managing our impacts in our operations and supply chains (Scope 3).

C2.2

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

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Long-term

Description of process
Our sustainability committee has an overall responsibility to ensure all of our direct and indirect policy making activities are in an alignment, therefore we discuss all our climate change risks, opportunities in this committee as well as corporate efforts on policy making in this committee. This committee and members are responsible to align all activities with our climate change policies. Investment plans, improvement projects are decided by the members of this committee. Our raw material is board and it is a sensitive material to the climate change, our production methodology uses excessive amount of energy, therefore we follow raw material and energy related issues very closely in the member associations very closely to give support on policy making by this committee. GM gives briefings to our board on behalf of Sustainability Com. biannually to inform about internal and external developments. R and D activities are carried out to improve our company's climate change performance.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our ISO 14001 risk assessment procedure identifies risks related to current regulations and legal requirements as significant risks. Therefore if there is a regulation on the issue, it is automatically significant. Such as energy consumption as a risk and energy reduction initiatives as opportunity. As an example; There is regulation on energy efficiency action to be taken. This is considered during current ISO 14001 risk assessment prcess.
Emerging regulation	Relevant, always included	Our sustainability committe meets up every 6 months to discuss about all the potential risks including emerging regulations. Our legal department and also members of external trade associations are member of this committee to give updated data to the committee. As an example to this type of risks identified; Taxes may increase according to the consumption of water and energy. Tax for vehicle fuel usage and transportation tonnage quota is possible.
Technology	Relevant, always included	sustainability committe members include R and D department responsible, technical manager as well as IT manager who are there to give information about new technologies. Technoılogy options are included in the risk and opportunity assessment. Such as; New high technology allows company to do many manual jobs with equipments, which also increases energy usage. This is identified as a climate risk.
Legal	Relevant, always included	As defined below; Our ISO 14001 risk assessment procedure identifies risks related to current regulations and legal requirements as significant risks. Therefore if there is a regulation on the issue, it is automatically significant. Such as; Legal air emission limits such as vehicle exhaust limits affect our distribution costs will have a direct impact on our business and financial performance.
Market	Relevant, always included	Membership meetings in trade associations and other relevant sources such as congresses, exhibitions and client visits are our main sources to collect climate related risk and opportunity data in the market. These are discussed during sustainability meeting every 6 months. As an example of this type of risk; our company is increasing export activities each year which leads higher carbon emmission.
Reputation	Relevant, always included	Our mission is to become a dynamic and leading company, operating under the principle "customer satisfaction first" in cardboard packing production, which has been conducted so far, being loyal to its principles of quality, trust and respect which also covers respect to environment. Our members of sustainability committee are also responsible managers in order to ensure our company to live for this mission. Duran Dogan considers all risks tied to changing customer or community perceptions of an organization's contribution to or detraction from the transition to a lower-carbon economy
Acute physical	Relevant, always included	Duran Dogan accepts continual improvement, efficient utilization of natural resources, full compliance with legislation and prevention of pollution, recycling, and disposal with the most suitable methods in all activities it carries out as fundamentals of its environmental policy. That is why short and long term effects on environment are always taken into consideration during identification and evaluation of environmental aspects/impacts. One of the acute physical risks is; We supply all of our recycled board from one local company, there are severity of extreme weather events seen lately in that area. This might effect our board supplies.
Chronic physical	Relevant, always included	Duran Dogan accepts continual improvement, efficient utilization of natural resources, full compliance with legislation and prevention of pollution, recycling, and disposal with the most suitable methods in all activities it carries out as fundamentals of its environmental policy. That is why short and long term effects on environment are always taken into consideration during identification and evaluation of environmental aspects/impacts. Example of our chronic physical risk is increasing temperatures in our region leads to higher usage of air conditioning every year.

C2.3

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

C2.3a

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

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Chronic physical	Rising mean temperatures

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Forestry products might decrease due to changes in weather conditions. This will have a negative impact on our supply chain and operations. Increased prices of raw materials will have a negative impact on our business.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
66000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are not 100 % sure about the potential financial impact yet. But we do know it will increase our raw material and operation costs significantly. This figure (6 000 0000 TRY/year) represent around 30 % of our revenue.

Cost of response to risk
40000

Description of response and explanation of cost calculation
Our efforts are focused on good forestry management. We are a member of the Forest Stewardship Council, and through this membership we are supporting sustainable production and climate change mitigation. FSC and PEFC standards provide strong safeguards for sustaining the yield of forest products, to conserve biological diversity and soils, and to maintain the ecological functions of forests

Comment
Annual FSC and PEFC membership fees, FSC and PEFC audit costs and improvement actions related costs

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Identifier
Risk 2

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
As the climate change becomes more prominent, consumers may incline to buy products with less packaging. Although our customers are not the end users, the behavioural change of the end users can effect the preferences of our customers. This can be a great risk for our company. Changing consumer behaviour can have a drastic financial implication on our operations

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
44000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

This risk will increase with time. We are estimating that in the medium term this might affect 20 % of our customers, therefore we have estimated 20 % of our yearly revenue.

Cost of response to risk
3500000

Description of response and explanation of cost calculation
Our R and D department is investigating environmentally friendly products with less layers and less production steps every day. We are improving our environmental commitment by joining projects like CDP. We train our clients about FSC and PEFC and encourage them to use registered cardboards.

Comment
We have invested a new generation printing machine which allows us more speed and less process repeats. this type of investments will be needed in the future to comply wit market requirements.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

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

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Production is affected due to issues related to water unavailability, which would cause increase in raw materials prices

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
110000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The potential financial implications of this risk is not very high as water is not the main ingredient in our production. However lack of water may cause drought, which may eventually lead to decrease in the population of trees which may be a very serious risk as our production depends mostly on cardboards and also hygiene issues might appear. We assume this can impact at least half of our revenue.

Cost of response to risk
30000

Description of response and explanation of cost calculation
We have continuous water usage reduction actions in the company. We are working on several projects to reduce the use of water in the company and also reduce our raw material usage by changing the product design to include fewer layers. These are small steps we can make. Countrywide precautions must be taken. That is one of the reasons we are active members of national and international sector associations.

Comment
Water reduction projects' costs only.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Chronic physical	Rising mean temperatures

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The climate change will have a negative impact on energy, fuel and raw materials availability. Inability to provide resources for production will disrupt our business and loss of revenues in the long-term

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
25000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Energy, fuel, and raw material costs will be increased and it will expand our operational costs. It is difficult to calculate this increase but roughly we assume it will be around 30% increase in some of our operational costs.

Cost of response to risk
200000

Description of response and explanation of cost calculation
As Duran Dogan Printing and Packaging, our strategy is to reduce energy and minimize material usage. To minimize the material usage and maximize efficiency we are adopting lean production practices and 5S method. We are implementing FMEA Methodology to reduce raw material usage. We are making FMEA analysis to reduce cardboard wastes in production and by giving precise measurements during R and D stage. We are already a member of FSC and PEFC. We are planting trees to reduce our environmental impact. We also have installed a conference call system into our offices which allows us to make some of our national or international meetings online without any problem. This has a big impact on our carbon foot print.

Comment
Management cost comes from; 1. RandD projects 2. FSC and PEFC activities 3. Conference call system establishment and monthly payments

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Identifier
Risk 5

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Legal air emission limits such as vehicle exhaust limits and fuel consumption limits which affect our distribution costs will have a direct impact on our business and financial performance. Our business operations may be adversely affected by significant and widespread disruption to our physical infrastructure or operating systems that support our businesses and customers.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
100000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Legal air emission limits such as vehicle exhaust limits and fuel consumption limits which affect our distribution costs will have a direct impact on our business and financial performance.

Cost of response to risk
10000

Description of response and explanation of cost calculation
Company cars and service bus routes are changed to minimise air emissions. In addition to that we are auditing our transportation vehicles to have the necessary precautions for lower emmission.

Comment
Cost comes from auditing of our transportation supplier

Identifier
Risk 6

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Possible Legal Requirements on Energy Usage are expected, however as the regulation about climate change and emission reduction targets are not clear. This poses a risk for the company. Currently carbon market is voluntary however Turkey might adopt a compliance mechanism in the future.

Time horizon
Long-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
150000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
If carbon offset mechanism applies to Turkey we are expecting this cost.

Cost of response to risk
75000

Description of response and explanation of cost calculation
Renewable energy investment is seen as an opportunity to reduce our carbon emissions in future. Currently we are investigating renewable energy investment opportunities. Besides we are working continually to minimize our emissions. We are currently evaluating our scope 3 emissions and trying to find ways to reduce our emissions and emissions intensity. We are constantly monitoring the new environment and energy laws and regulations and global standards through our certified environmental management system to initiate proactive actions and to be ready for future legislative requirements.

Comment
We are working with a consultant for carbon footprint reduction and another consultant firm to adopt energy saving projects for our company.

Identifier
Risk 7

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services

Primary potential financial impact
Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Based on new legal requirements, new investments might be needed to reduce the emission rate sourced from production.

Time horizon

Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
150000

Potential financial impact figure – maximum (currency)
500000

Explanation of financial impact figure
New Technologies will be needed, therefore a wide range of investment amount is assumed.

Cost of response to risk
3000000

Description of response and explanation of cost calculation
We are continuously seeking energy and raw material saving opportunities, investments. New Technologies will be applied as needed. CDP project helps us to manage this systematically as well as ISO 140001 system. We are constantly monitoring the new environment and energy laws and regulations through our certified environmental management systems (ISO 14001), to initiate proactive actions, We are always considering climate change risks and opportunities during investment evaluations.

Comment
We might need to install high tech machinery for less energy usage and less emission production. Also our routine carbon monitoring, reduction and reporting activities cost is added to above figure.

Identifier
Risk 8

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Carbon tax regulations may affect our operations, according to the consumption of energy or carbon foot prints of our operations, logistics, fleet and supply chain in line with EU Carbon regulations.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
500000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are estimating that with our current emmission levels.

Cost of response to risk
75000

Description of response and explanation of cost calculation
We are seeking for new energy reduction projects and working with an energy consultant.

Comment
This includes cost of consultancy and project design. The cost will be clear once energy reduction projects are decided

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Identifier

Risk 9

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Other, please specify (Tax on resources use and consumption)

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Taxes may increase according to the consumption of water and energy. Tax for vehicle fuel usage and transportation tonnage quota is possible. Also possible restrictions of modes of transport such as air, rail, road, water for distribution of products may increase.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
500000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Possible taxes for vehicle fuel usage and transportation tonnage quota

Cost of response to risk
170000

Description of response and explanation of cost calculation
We have already seen these risks as an opportunity and we started investing vehicles which consume less fuel, in this way, operational cost will decrease in the long term. Company cars are converted to diesel and fuel usage has been reduced. Also, sea transportation alternatives are studied to decrease fuel consumption for transportation. We are planning to reduce fuel consumption in the long term by using light load trucks. We will further investigate alternative vehicles which consume less fuel. These will prepare us for potential legal requirement changes.

Comment
Using light load trucks.

Identifier
Risk 10

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
As the impact of climate change becomes more visible in daily life, clients' awareness of climate change and their sensitivity towards it increases. Changing consumer behavior requires packaging sector to be more open on developing green products, create or develop new climate-friendly credit lines

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
33000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We assume at least 15 % of our revenue might be effected from behavioural change.

Cost of response to risk
200000

Description of response and explanation of cost calculation
Our management team and R and D Department continuously seek for low carbon new technologies. We participate to several congresses, conferences around the world. We are active members of national and international bodies such as IPG (International Packaging Group), FSC-Forest Stewardship Council where climate related issues and sustainability are priorities in their agenda. On the other hand our business development and sales teams hold pulse of the market. Duran Dogan sales evaluation team evaluates each project according to its project-specific conditions, region, and maturity. Possible climatic impacts are also included in this evaluation. We focus on taking necessary steps to comply with customer demands.

Comment
Association Memberships, attendance to congresses and international meetings, carrying out risk assessments, R and D activities are the main costs for management of this risk.

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
Our sustainability committe member's shares experiences and CDP reporting increases our awareness at all levels and allows us to be proactive. Our business development and sales teams are well aware of our current climate related strengths and also monitors market requirements closely to comply with new customer expectations.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
20000000

Potential financial impact figure – maximum (currency)
30000000

Explanation of financial impact figure
This will allow us to ahead of our competitors and allow us to gain our client's trust. we believe it will effect our revenue at least 10%

Cost to realize opportunity
5000000

Strategy to realize opportunity and explanation of cost calculation
We have an advantage against our competitors, as we will not need time to adapt to the new regulations. We believe we will have an increasing demand from our

customers in the EU regarding the carbon footprint of our operations, and as we have the information readily available, this may be an opportunity for us to gain new customers. Further tightening of emission caps and a clarification of international rules could make these opportunities more attractive from a cost/benefit perspective. By setting short-term aggressive energy and CO2e reduction targets DDPACK, through its sustainability strategy, is increasing its chances of anticipating further regulatory requirements.

Comment
Low carbon machinery investments and Low carbon alternative transportation cost

---

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Reduced water usage and consumption

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Currently energy reduction incentives are given by the government, water related incentives may also be given for reduction of water usage.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
500000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Government incentives could help to reduce our investment and maintenance costs. It will also help to save some operational costs.

Cost to realize opportunity
60000

Strategy to realize opportunity and explanation of cost calculation
Working with consultant to seek for reduction projects.

Comment
This cost covers consultancy services and projects design. There will be some additional costs once projects are decided

---

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Turkish Government gives incentives for approved energy-saving projects. also our clients are monitoring our resource usage.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)

5000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
There are possibilities about taking some government incentives, other opportunities are to increase our client portfolio and savings in operation costs.

Cost to realize opportunity
1000000

Strategy to realize opportunity and explanation of cost calculation
We are consider ing to improve our scope 3 emissions by developing low carbon alternatives with our logistic partners. Also working with an energy efficiency consultant to investigate energy saving opportunities. We have also changed our employee transportation buses with lower emission types. We are working on the routes of the service buses and company cars to reduce emmissions.

Comment
More focus on production line efficiencies and scope 3 emissions will help this

---

Identifier
Opp4

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
Customer demand on low carbon products will increase in addition to quality expectations; this will change competition criteria in the future.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
10000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We are adopting ourselves for the Big Shift where technology, products, regulations and customer expectations will be much different then now within a decade. Customer behaviours are changing. If we can cope with this trend then we will be very successful company in our sector.

Cost to realize opportunity
350000

Strategy to realize opportunity and explanation of cost calculation
Revising our products and the way we work will be an opportunity for DDPACK in the future. Our company is allocating all of the resources from today to become a low carbon company including Research and development works for product design.

Comment
Research and development works for product CDP Activities including carbon reduction programmes.

C3. Business Strategy

C3.1

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

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative

C3.1b

(C3.1b) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
Other, please specify (Design Scenarios)	Through our Sustainability by Design Programme, we systematically assess environmental performance across the entire value chain at the earliest stage in the development of new and renovated products. We use a simulation technology to assess different scenarios at this stage.
Other, please specify (Supply Chain Scenarios)	Extend the scope of GHG reduction efforts along the value stream, including product design, procurement, manufacturing and packaging, logistics, consumption to support our long-term strategy to have a positive reputation with regard to climate change. In order to that we work closely with our main suppliers and customers to have more robust scenarios on raw material availability, new taxes and regulations, new technologies etc.
Other, please specify (Business Development Scenarios)	DDPACK sales evaluation team evaluates each project according to its project-specific conditions, region, and maturity including possible climatic impacts as an scenario.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	From all the wood extracted around the world's forests, 53% is used for energy production, 28% is used by sawmills and only around 11% is used directly by the paper industry . The paper industry depends on trees and needs thriving forests. It is very much in its interests that this raw material can be used sustainably and will remain available as a raw material to future generations. From a tree, big logs are used for timber. The branches cut to maintain trees healthy are used for paper making. Residues from saw mills such as wood chips, are also used as raw material for paper DDPACK actively promotes efforts to increase the amount of land certified to credible forest management standards. We use carton sourced to internationally recognized standards. • Forest Stewardship Council - FSC • Programme for the Endorsement of Forest Certification – PEFC Our certified carton procurement system is designed to ensure that the paper DDPACK uses is grown and harvested in a manner that respects applicable legal requirements, traditional rights, human rights and forest ecosystems. Our easily recyclable and reusable products are based on renewable materials. We actively promote and participate in many recycling schemes.
Supply chain and/or value chain	Yes	DDPACK's operations also support the concept of a "circular economy", where materials are repeatedly recycled and waste generation is minimised, creating maximum environmental benefits and financial added value. Our material efficiency work promotes the efficient use of raw materials, waste reduction, the reuse of cartons, and the creation of business opportunities and revenues from wastes and by-products. When it comes to recycling, the carton board usage is in focus. Recovery includes the collection of used paper and board and delivery to a reprocessing mill, where the fibres are separated. The recovered fibre is then used to make carton board or another paper or board product. In line with this point of view, we ensure the used cartons recycled as raw material by waste management companies. We have a clipping system. Cardboard wastes and unused cardboard are passed through the waste system and taken to the collection center of the contracted company for recycle.
Investment in R&D	Yes	High-end brands upgrade to more appealing and engaging designs and boost their notice on the shelf by using metallic surfaces. Metallizing communicates high value, freshness, and quality to consumers. "Shiny" increases emotional engagement, memory retention, novelty and purchase intent. Using a foil or metallic inks to achieve this look creates environmental burdens due to the high percentage of aluminum in the packaging structure. Also metallic films creates a heavy ecological impact. More importantly, mixing different materials for packaging is not encouraged due to the challenges that brings at the end of life stages, i.e. the metalized papers cannot be recycled due to change the structure of the cardboard. Taking this challenge on board, DDPACK develop the "transfer metalized technology". Our line of transfer metalized laminated paper products, addresses the need for an environmentally friendly alternative to conventional foil and film laminating. These products are designed to meet sustainable packaging needs of the market without compromising from the aesthetic beauty that brilliant silver and holographic base stocks offer. This innovative green initiative makes laminated packaging recycled back into the manufacturing. Besides, resource reduction is a critical factor in energy and waste reduction and is an important benefit to be gained through the use of packaging materials made with a metal-transfer film technology. The end-users' choice for lighter packaging have a positive impact on the our environment as well, thanks to our innovative technology this demand can be handled sustainably. Benefits of transfer metalized technology: * Biodegradable/repulpable. * Has lower cost than foil transfer products * Resource reduction, less to landfill and more economical to transport opportunity * 100% recyclable and compostable and contains 0% plastics * Alternative to laminated metallized polyester films.
Operations	Yes	Our business depends on a healthy environment and abundant natural resources, so we are intently focused on environmental compliance and stewardship. The main purpose of Duran Doğan is to create the necessary bases for production without consuming the trees. Our business contingency plan includes scenarios on climate change related issues and back up plans are prepared and implemented accordingly. DDPACK faces an increasingly complex landscape related to climate issues. As a packaging company, we analyze and address potential effects of climate change as they may affect the earth's capacity to provide enough packaging material for future generations. We see climate change risks as opportunities for us which contributes to our strategies. We focus on emission reduction, energy efficiency and optimization of natural resources. Reducing CO2 emissions of our operations is the key element of our business strategies. Our business strategy is linked to emission reduction targets and to climate change risk and opportunities. Most of our scenarios are positive in this respect.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Capital expenditures Access to capital	We expect that the new innovative "transfer metalized technology" will generate substantial business opportunities and revenue in the future years with the increased in demand for sustainable packaging solutions. For such innovation we needed to make an investment for machinery and human capital. The focus of future financial plannings are now includes climate change mitigation and adaption strategies. Such strategy already paid off and has given us the opportunity to access the capital to invest from reputable banks such as EBRD.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Both absolute and intensity targets

C4.1a

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

Target reference number
Abs 1

Year target was set
2011

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2011

Covered emissions in base year (metric tons CO2e)
298.58

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
10

Target year
2020

Targeted reduction from base year (%)
8.4

Covered emissions in target year (metric tons CO2e) [auto-calculated]
273.49928

Covered emissions in reporting year (metric tons CO2e)
273.49

% of target achieved [auto-calculated]
100.03700053268

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
We use only solar power for our admin buildings now . Solar power generation was little lower than previous year due to weather conditions during 2018.

Target reference number
Abs 5

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2016

Covered emissions in base year (metric tons CO2e)
187.74

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
7.41

Target year
2019

Targeted reduction from base year (%)
5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
178.353

Covered emissions in reporting year (metric tons CO2e)
178.35

% of target achieved [auto-calculated]
100.031959092362

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
The project was to turn off all production area electricity automatically in Omerli and Hadimkoy site's production areas during lunch and coffee break times and save 5 % in energy consumption. It is achieved by 90 % during 2017 and target is achieved 100 % in 2018. Our One-hour operational energy consumption went down to 9,39 kwh in 2017 and went up to 10,47 kwh in 2018. This is due to 2 new production machine in our factory. (One machined is upgraded and replaced the old one, another machine was invested as an addition to current production lines. These new generation machines produces 50 % more product sheet than older machines during the same working hour. Our measurement unit was per working hour therefore it looks like it has increased. We plan to monitor electricity consumption as per product sheet in coming years in order to have more accurate figure for targets.

Target reference number
Abs 6

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2016

Covered emissions in base year (metric tons CO2e)
52

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
1.4

Target year
2019

Targeted reduction from base year (%)
2.5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
50.7

Covered emissions in reporting year (metric tons CO2e)
50.7

% of target achieved [auto-calculated]
99.9999999999998

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
The project was to turn off cutting line machinery during break hours and save 2.5 % in energy consumption. It is achieved by 100 %. Our One-hour operational energy consumption went down to 9,39 kwh in 2017 and went up to 10,47 kwh in 2018 with new machinery investments. This is due to 2 new production machine in our factory. (One machined is upgraded and replaced the old one, another machine was invested as an addition to current production lines. These new generation machines produces 50 % more product sheet than older machines during the same working hour. Our measurement unit was per working hour therefore it looks like it has increased. We plan to monitor electricity consumption as per product sheet in coming years in order to have more accurate figure for our targets.

Target reference number
Abs 7

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2016

Covered emissions in base year (metric tons CO2e)
56

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
1.5

Target year
2019

Targeted reduction from base year (%)
5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
53.2

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]
<Calculated field>

Target status in reporting year
Retired

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)
Decreasing pressure of the machinery from 8 bar to 7,5 bar was the target but at the end of several trails we found out that it has a big impact on our efficiency, therefore we have retired this target.

Target reference number
Abs 8

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Base year
2016

Covered emissions in base year (metric tons CO2e)
37.46

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
0.5

Target year
2020

Targeted reduction from base year (%)
1

Covered emissions in target year (metric tons CO2e) [auto-calculated]
37.0854

Covered emissions in reporting year (metric tons CO2e)
37.08

% of target achieved [auto-calculated]
101.44153764015

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
We have installed photocells to turn off lights when there is enough daylight in Omerli Factory. This has resulted 28 tCO2 reduction.

Target reference number
Abs 10

Year target was set
2018

Target coverage
Company-wide

Scope(s) (or Scope 3 category)

Scope 2 (location-based)

Base year
2017

Covered emissions in base year (metric tons CO2e)
296.49

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
7.4

Target year
2019

Targeted reduction from base year (%)
8

Covered emissions in target year (metric tons CO2e) [auto-calculated]
272.7708

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]
<Calculated field>

Target status in reporting year
Retired

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
A new machine has been installed to our factory during last quarter of 2018. This printing machine (XL 145) which has 8 ink stations and 2 varnish station. Previous machine was producing 10000 sheets/hour and the new machine produces 15000 sheets/hour. In addition to that, new machine can produces with one pass only instead of 2 passes, this helps us to save energy. We have reduced 60 % of our emissions covered by this target up to now.

Target reference number
Abs 11

Year target was set
2018

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3: Waste generated in operations

Base year
2017

Covered emissions in base year (metric tons CO2e)
89

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
0.01

Target year
2019

Targeted reduction from base year (%)
2.5

Covered emissions in target year (metric tons CO2e) [auto-calculated]
86.775

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]
<Calculated field>

Target status in reporting year
Retired

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
We are planning to reduce our scrap amounts by installing XL145 machine defined above. This machine was installed at the last quarter of 2018 and trails are continuing. Scrap will be more than anticipated until a stable regime is reached.

Target reference number
Abs 13

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year
2019

Covered emissions in base year (metric tons CO2e)
35937

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
10

Covered emissions in target year (metric tons CO2e) [auto-calculated]
32343.3

Covered emissions in reporting year (metric tons CO2e)
35937

% of target achieved [auto-calculated]
0

Target status in reporting year
New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
This is new target. Currently film lamination technology is used by many of the competitors to produce metalized products (PET MET + Card Board) and this type of products are not recyclable. We have a transfer metalized production machine which allows metalized products to be recycled. We are planning to add another transfer metalized machine which will increase our capacity to 30000 m2 and increase our contribution to environmental protection. We expect around 610 t CO2 eq. per year and this figure is expected to increase by more investment and more production in this new technology.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1

Intensity metric
Metric tons CO2e per unit revenue

Base year
2019

Intensity figure in base year (metric tons CO2e per unit of activity)
0.00000369

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2025

Targeted reduction from base year (%)
5

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.0000035055

% change anticipated in absolute Scope 1+2 emissions
5

% change anticipated in absolute Scope 3 emissions
10

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.00000369

% of target achieved [auto-calculated]
0

Target status in reporting year

New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
This is new target now based on revenue generated for our Scope 1 emissions.

Target reference number
Int 2

Year target was set
2020

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 2 (location-based)

Intensity metric
Metric tons CO2e per unit revenue

Base year
2019

Intensity figure in base year (metric tons CO2e per unit of activity)
0.0000215

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2025

Targeted reduction from base year (%)
5

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.000020425

% change anticipated in absolute Scope 1+2 emissions
5

% change anticipated in absolute Scope 3 emissions
10

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.0000215

% of target achieved [auto-calculated]
0

Target status in reporting year
New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)
This is new target now based on revenue generated for our Scope 2 emissions.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
No other climate-related targets

C4.3

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

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	295
To be implemented*	1	95.75
Implementation commenced*	2	385.49
Implemented*	1	179.35
Not to be implemented	2	66

C4.3b

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

Initiative category & Initiative type

Other, please specify	Other, please specify (Planned Preventive Maintenance Activities to reduce emissions)

Estimated annual CO2e savings (metric tonnes CO2e)
38

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
45740

Investment required (unit currency – as specified in C0.4)
15000

Payback period
<1 year

Estimated lifetime of the initiative
1-2 years

Comment
Planned preventive maintenance activities leads to energy savings which helps us to reduce our scope 2 emissions, at the same time helps us to reduce our direct emissions from company cars and from heating units.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
564.84

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
673592

Investment required (unit currency – as specified in C0.4)
21182000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Our new machinery investments will increase our capacity and reduce our carbon footprint.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	We are focusing on the areas that we can save energy. Our business decision making process is aligned with our sustainability risks and opportunities. Therfore we always allocate budget for energy efficieny.
Employee engagement	It is very important to include our employees into our sustainability strategies. We train our people on the climate change related matters.
Internal incentives/recognition programs	We have established incentives for our blue and white collar employees as explained in section 1.3a
Dedicated budget for low-carbon product R&D	We monitor our customer's behaviors about emission reduction activities and provide them improved solutions with lower emissions. Our RandD department continuously seeks for raw material and process optimizations as well as focusing on new generation product designs.

C4.5

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

No

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

918

Comment

We have 2019 as base year as we have the most comprehensive assessment so far done on our carbon measurement and built on these figures for our carbon reduction initiatives.

Scope 2 (location-based)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

3524.13

Comment

We have 2019 as base year as we have the most comprehensive assessment so far done on our carbon measurement and built on these figures for our carbon reduction initiatives.

Scope 2 (market-based)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

Location based approach was used.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
918

Start date
January 1 2019

End date
December 31 2019

Comment
Same as last year in Scope including emissions from natural gas used for heating and production purposes, CO2 fire extinguisher refills, cooling gas refills and diesel used for electricity generation in case of power cuts and fuel used in company owned cars.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
887

Start date
January 1 2018

End date
December 31 2018

Comment
Our scope 1 emissions includes natural gas used for heating and production purposes, CO2 fire extinguisher refills, cooling gas refills and diesel used for electricity generation in case of power cuts and fuel used in company owned cars.

C6.2

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

Row 1

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

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment
Although contractual instruments are available to purchase electricity from the market in Turkey, there has been no reliable source for a market-based figure from market providers yet.

C6.3

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

Reporting year

Scope 2, location-based
5342

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2019

End date
December 31 2019

Comment
Same as previous year including emissions from electricity used in our operations and office use.

Past year 1

Scope 2, location-based
4170

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2018

End date
December 31 2018

Comment
This emissions include electricity used in our operations and office use.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

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

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
31476

Emissions calculation methodology
Purchased goods were calculated using LCA approach (ISO 14040/44) with Ecoinvent database excluding infrastructure related emissions. Auxiliary services and intangible products are not included .

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Secondary data from Ecoinvent was used for related goods purchased by the company.

Capital goods

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Emissions from capital goods will be calculated next year.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
572

Emissions calculation methodology
According to technical guidance for calculating Scope 3 emissions by GHG Protocol, emissions from electricity transmission and distribution losses are included in Scope 3, Category 3. Turkish electricity production mix was modelled based on the 2018 energy production figures. Medium voltage of the same production mix was calculated based on the quoted transmission and distribution losses including cooling gas losses at transformers. The difference was used to calculate Scope 3 emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Data for transmission and distribution losses were from literature as well as SF6 losses used for the cooling of transformers.

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Emissions from Upstream transportation and distribution will be calculated next year.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
116

Emissions calculation methodology
According to technical guidance for calculating Scope 3 emissions by GHG Protocol.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
We have to record all generated waste (disposed and recycled) to declare to Ministry of Environment and Urbanisation of Turkey. The calculations are based on these formal declarations and DEFRA waste disposal emissions factors

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
11

Emissions calculation methodology
According to technical guidance for calculating Scope 3 emissions by GHG Protocol. Only verified business travel included (invoices available to prove the travel)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
All national and international business flights are included. Only verifiable flights by the third party verifier (RINA), i.e. flights without any records were excluded from this figure.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
720

Emissions calculation methodology
According to technical guidance for calculating Scope 3 emissions by GHG Protocol.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Fuel consumption data for employee transportation service buses are collected and emissions are calculated based on the fuel type emissions factors.

Upstream leased assets

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Upstream leased assets will be included in next years disclosure

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
3042

Emissions calculation methodology
According to technical guidance for calculating Scope 3 emissions by GHG Protocol.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Including all transport methods: road, air and sea for products to customers.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As the end product is ready packaging, there is no further processing involved with them.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As the end product is ready packaging used for protecting and carrying the final product, there is no emissions involved in use phase.

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
End of life treatment of sold products will be included in next years disclosure.

Downstream leased assets

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Downstream leased assets will be included in next years disclosure.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As there is no franchises network available for the DDPACK, this is not relevant.

Investments

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not included but will be calculated next year.

Other (upstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

C6.7

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

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	361	Biogenic carbon emissions due to core board use as raw material

C6.10

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

Intensity figure
0.000025

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
6260

Metric denominator
unit total revenue

Metric denominator: Unit total
248616991

Scope 2 figure used
Location-based

% change from previous year
10.5

Direction of change
Decreased

Reason for change
Revenues from 2018 to 2019 increased about 20.5%, while the emissions increased about 23.8% for the same period. Emission intensity increased about 2.8%. The reason for this increase was due to change in electricity mix factor for Turkey from IEA 2016 values of 0.497 kgCO2/kWh to TLCID 2018 values of 0.579 kgCO2/kWh. Since about half of the Scope 1 and 2 emissions are related to electricity, this change makes a considerable impact. When normalised, there is in fact about 10.5% reduction in greenhouse gas intensity figure.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	918

C7.3

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

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Omerli Factory	327	28.636609	41.077051
Hadımkoy Factory	591	28.626447	41.238651

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Turkey	5342	0	9226	0

C7.6

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

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Omerli Factory	546	
Hadımkoy Factory	4796	

C7.9

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

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		Not applicable
Other emissions reduction activities		<Not Applicable>		Not applicable
Divestment		<Not Applicable>		Not applicable
Acquisitions		<Not Applicable>		Not applicable
Mergers		<Not Applicable>		Not applicable
Change in output	447	Increased	7	There is slight increase in production that is this change add small additions into the total.
Change in methodology	756	Increased	14	There is a change from electricity mix factor of 0.497 kgCO2 eq. /kWh (2016) to the latest figure of 0.579 kgCO2 eq./kWh, which is the result for this change.
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?
More than 0% but less than or equal to 5%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	6590	6590
Consumption of purchased or acquired electricity	<Not Applicable>	3229.1	5996.9	9226
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	3229.1	12886.9	15816

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2918

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat
2918

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.02

Unit
kg CO2e per m3

Emissions factor source
DEFRA

Comment
Natural gas is used for heating purposes and production machines.

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
3586

MWh fuel consumed for self-generation of electricity
60

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.54

Unit
kg CO2e per liter

Emissions factor source
DEFRA

Comment
Diesel is used for ad-hoc energy generation when the power was cut-off and as fuel by the company cars.

Fuels (excluding feedstocks)
Petrol

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
86

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.17

Unit
kg CO2e per liter

Emissions factor source
DEFRA

Comment
Petrol is used as fuels used for company cars

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	69	60	9	9
Heat				
Steam				
Cooling				

C9. Additional metrics

C9.1

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

Description
Waste

Metric value
44.4

Metric numerator

Metric denominator (intensity metric only)
Cubic meter of wastewater/Full Time Employee-FTE

% change from previous year
38

Direction of change
Increased

Please explain
Wastewater is assumed to the same with the amount of water we use (from city water network). This value in 2018 was 8706 m3. There is around 270 FTEs in 2018. Based on this, 2018 waste waster intercity factor (Cubic meter of wastewater/Full Time Employee-FTE) is 32.2. This was not provided in 2018 disclosure. But for the comparability we presented here. Based on these figures, there is 38% increase in wastewater intensity factor for this disclosure year (44.4).

Description
Land use

Metric value
10692

Metric numerator

Metric denominator (intensity metric only)
Revenue/Land use (₺/sqm)

% change from previous year
0

Direction of change
No change

Please explain
This indicators shows our lands use for our value creation which is reflected by the revenue. In the disclosure year (2019) the land area we occupy was 23252 sqm for the two manufacturing sites. The revenue for the year of 2019 was ₺248 616 991 from an independent audit. This intensity factor will be compared against the figures in the following years.

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/ section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/ section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

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

Scope 3 category
Scope 3: Purchased goods and services

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Waste generated in operations

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Employee commuting

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Duran Dogan_2019 CDP climate statement_26082020_docx.pdf

Page/section reference
Page 1

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

C12.1b

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

Type of engagement
Collaboration & innovation

Details of engagement
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
10

% of customer - related Scope 3 emissions as reported in C6.5
8

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
This is required by our customer, but at the same time, we are very motivated to continue in this path and share information with some of our supplieers.

Impact of engagement, including measures of success
We have started a collaboration SIP project with Diageo. Which includes several improvements and innovations such as; Recycling of transfer metalized films, parcels without carton sealing tapes, reducing cardboard unit weights, purchasing ink in bulk containers etc. This engagement has increased climate change awareness within the company at all levels. It has helped us to reduce our energy consumption.

C12.3

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

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?
Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
KASAD (Karton Ambalaj Sanayicileri Derneği-Carton Board Packaging Manufacturers Association)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
KASAD is an association in the Cardboard packaging sector to improve sectors' credibility in the market. Being an ''environmentally friendly'' sector is one of the main goals of the association. Kasad promotes recycling of packaging materials to combat with the effects of climate change.

How have you influenced, or are you attempting to influence their position?
We are very active in this association as one of our board member being chair person on the board of the association and we focus on being a role model for the other members especially on climate change issues. We have supported Kasad to set a target for its members to report CDP within the next 5 years latest. (Especially food packaging sector members)

Trade association
ASD (Ambalaj Sanayicileri Derneği-Packaging Manufacturers Association)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
ASD promotes sustainable packaging, and energy efficiency to combat climate change.

How have you influenced, or are you attempting to influence their position?
Our chairman Mr. Oktay Duran is in the board of ASD. As we have a strong influence in the Association, we are strongly promoting sustainable packaging technologies.

Trade association
ECMA (European Carton Makers Association)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position
Packaging has exemplarly credentials in terms of sustainability; the industry pioneered the recycling revaluation and it is aligned to current climate change policies. Carton is also one of the best examples of a sustainable economic model: using primarily renewable resources, it is made of sustainably managed virgin and recycled fibres, and the used raw materials are widely recovered and reused, thus leading to limited waste. ECMA's on e of the 5 key objectives is ''Sustainability'' was directly involved in the working group developing the "CEPI framework for the development of carbon footprints for paper and board products", published in September 2007, and were contributing in the Pro Carton Europe Environmental Data project, leading to a first version of the "Carbon Footprint for cartons", released in April 2008.

How have you influenced, or are you attempting to influence their position?
We actively share our sustainability and climate change related experience with ECMA members in periodical meetings and committees. Our Board Member Mr. Ali Can Duran is the Vice President of ECMA, therefore we have a strong influence about ECMA's position on climate change

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Trade association
ISO (Istanbul Sanayi Odası-Istanbul Chamber of Industry)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
ISO gives recommendations Turkish Government on all draft regulations in line with the globally recognized standards and practices. This includes Turkish Environmental Legislation contents climate change related issues ISO also works for the development of environmentally friendly technologies and development of environmental standards with the working committees constructed by member companies

How have you influenced, or are you attempting to influence their position?
Our influence in ISO is limited compared to the other associations that we are registered to. We vote for the management team who sets policies of ISO We try to be selected to the working committees time to time

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Trade association
ITO (Istanbul Ticaret Odası-Istanbul Chamber of Commerce)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
Similar to ISO, ITO also evaluates legislation changes during preparation stage. ITO responses to the requests from the government regarding the changes in legislation including environmental legislation.

How have you influenced, or are you attempting to influence their position?
Our influence in ITO is limited compared to the other associations that we are registered to. We vote for the management team who sets policies of ITO

Trade association
IPG (International Packaging Group)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
International Packaging Group, Association (IPG), is a global affiliation of folding carton and packaging producers and world-leading suppliers to the packaging industry. Members share a common purpose by meeting annually to exchange know-how on advanced technology, innovation and development, production methodology, exposure to world-class performance standards through plant visits and benchmarking among its members, and social-political understanding for success in an increasingly competitive global business community. We know of no other professional organisation that has engendered a comparable openness on a wide range of issues.

How have you influenced, or are you attempting to influence their position?
IPG accepts only one market leader company in every country as a member, using "technology level and product quality level" selection criterias. Duran Dogan is representing Turkey now in this association and has influence on the international business society.

C12.3f

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

Forest management is one of the most effective contribution to a low-cost global mitigation portfolio that provides synergies with adaptation and sustainable development. Good forest management therefore needs to consider carbon cycles and should aim at maintaining or restoring carbon stocks. FSC ensure forest stewardship that considers the impact of management regimes on forest carbon cycles and aims at maintaining, restoring or enhancing forest carbon resources. FSC standards provide strong safeguards for sustaining the yield of forest products, to conserve biological diversity and soils, and to maintain the ecological functions of forests
We train our clients about FSC and PEFC and encourage them to use registered cardboards.
We coordinate common activities with our cardboard and corrugated board suppliers in order to include them in FSC and PEFC certification chain. It is our general strategy to include our suppliers into this chain in order to serve our clients which produces products only with ''FSC and PEFC'' Logos.
We are a member of the Forest Stewardship Council, and through this membership we are supporting sustainable production and climate change mitigation.
We have achieved PEFC Registration during 2013. (The Programme for the Endorsement of Forest Certification (PEFC) is an international non-profit, non-governmental organization dedicated to promoting Sustainable Forest Management (SFM) through independent third-party certification. PEFC works throughout the entire forest supply chain to promote good practice in the forest and to ensure that timber and non-timber forest products are produced with respect for the highest ecological, social and ethical standards.

C12.4

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

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	CEO	Director on board

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

We have started CDP reporting with our client Diageo's invitation. We already had business risk assessment and crisis management system in place, but now we have a wider perspective with CDP reporting initiative requirements. We have integrated climate change related business risks and opportunities into those evaluations which gives us broader vision. Our company mission is to establish long-term sustainable solutions through Diageo collaboration. Our aim is to provide a setting where we can meet and build long-lasting relationships across both of our value chains with DIAGEO and other clients.

To reach this aim, we are putting all our effort toward havin a constructive and supportive relationship with Diageo, bridge the gap between sustainability and procurement. We continuously seek for opportunities to work together on managing human rights, deforestation and climate change related risks.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	248616991

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member
Diageo Plc

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
259

Uncertainty (±%)
5

Major sources of emissions
Direct natural gas and fuel consumption. Diesel oil used for power generation and natural gas used to heat factory and admin units. Company cars used for management.

Verified
No

Allocation method
Allocation based on mass of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
We have allocated emissions to Diageo according to the percentage of Diageo's purchase amount in our total production amount.

Requesting member
Diageo Plc

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
1506

Uncertainty (±%)
5

Major sources of emissions
Electricity

Verified
No

Allocation method
Allocation based on mass of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
We have allocated emissions to Diageo according to the percentage of Diageo's purchase amount in our total production amount. We have allocated Diageo a special production line. All data from operations are collected via SAP and OMP database that gathers: fuel consumption (direct for process, internal transport), electricity consumption, raw materials consumption (wood, starch, glue, inks, recovered papers, paper from external suppliers...) We have calculated energy usage via machine manufacturer's published information. We have also allocated some admin unit electricity usage to Diageo according to the percentage of the production made for Diageo.

Requesting member
Diageo Plc

Scope of emissions
Scope 3

Allocation level
Company wide

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e
10131

Uncertainty (±%)
5

Major sources of emissions
Purchased goods and services, downstream transportation and distributions, fuel and energy related activities (energy losses)

Verified
No

Allocation method
Allocation based on mass of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
We have allocated emissions to Diageo according to the percentage of Diageo's purchase amount in our total production amount.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

For purchased goods and services in Scope 3, Ecoinvent database for secondary datasets on core board were used. For other activities, Published DEFRA Greenhouse Gas Reporting conversion factors 2020 report is used. The sale percentage used for allocation is primary data and it is confidential.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Our production lines are very complex. Each product flows in several production line until it is completed according to its type. It makes allocation process challenging. However, we believe our current estimation based on mass product purchased by Diageo is relatively accurate.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Life Cycle Assessments and Environmental Product Declarations is a way of provide information at product level. We have the necessary set-up (such as SAP system) to have the data for such detailed assessment. There is newly published Product Category Category Rules (PCR) to publish EPD for packaging products. By EPDs, it will be possible to determine more accurate emissions depending on the specific products purchased.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member
Diageo Plc

Group type of project
New product or service

Type of project
New product or service that has a lower upstream emissions footprint

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings
615

Estimated payback
3-5 years

Details of proposal
Our target is to invest on another transfer metallised cardboard machine. This machine will produce recyclable metallised cardboards. A collaboration on this project will help to reduce carbon emissions related to the use of polymer film. This is due to the fact that all polymer films from this technology is recycled after the metallisation transfer and returned back to the economy. This is estimated to have 610 tCO2 eq. per year from our Scope 3 emissions. This technology also create opportunity to tackle the challenges related to laminated paper packaging at the end of life, which we did not include in carbon saving potential.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
Yes

SC2.2a

(SC2.2a) Specify the requesting member(s) that have driven organizational-level emissions reduction initiatives, and provide information on the initiatives.

Requesting member
Diageo Plc

Initiative ID
2018-ID1

Group type of project
Change to supplier operations

Type of project
Other, please specify (Innovation and new products)

Description of the reduction initiative
We have started a collaboration SIP project with Diageo. Which includes several improvements and innovations such as; Recycling of transfer metallised films, parcels without carton sealing tapes, reducing cardboard unit weights, purchasing ink in bulk containers etc. This engagement has increased climate change awareness within the company at all levels. It has helped us to reduce our energy consumption.

Emissions reduction for the reporting year in metric tons of CO2e
117

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
Yes

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?
Yes

SC3.1a

(SC3.1a) Identify which member(s), if any, have motivated you to take part in Action Exchange this year.
Diageo Plc

SC3.1b

(SC3.1b) Select the types of emissions reduction activities that your company would like support in analyzing or in implementing in the next reporting year.
Energy efficiency in production processes
Green project finance
Low-carbon energy consumption
Low-carbon energy generation
Waste reduction and material circularity

SC3.1c

(SC3.1c) As part of Action Exchange, would you like facility level analysis?
Yes

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?
Yes

SC3.2a

(SC3.2a) Describe how your company actively considered emissions reduction projects as a result of Action Exchange. If you do not have any emissions reduction activities resulting from Action Exchange at any stage of implementation, please explain why not in the second column.

	Type of project	Details of proposal
Row 1	Energy efficiency in production processes Low-carbon energy consumption Low-carbon energy generation Waste reduction and material circularity	

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Non-public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms