Grape King - Climate Change 2023

C0. Introduction

C0.1

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

Grape King Bio has established our foothold in Taiwan with leading-edge raw material and product innovations and continue to be one of the leaders in the health food industry. Being a PIC/S GMP and ISO22000, ISO/IEC TAF 17025 and NSF GMP certified manufacturer, we are able to guarantee the highest standards in product safety, quality and manufacturing.

“Technology, Health, and Hope” are the core values of Grape King Bio, which we use as part of our vision and mission. Biotechnology is a key trend in the 21st century and is also a the direction for us to deliver long-term and sustainable growth.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 2 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 3 emissions data for
Not providing past emissions data for Scope 3

C0.3

(C0.3) Select the countries/areas in which you operate.
China
Taiwan, China

C0.4

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

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

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	TSE1707
Yes, an ISIN code	TW0001707008

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 or committee	Responsibilities for climate-related issues
Board Chair	The Sustainability and ESG Committee was established under the general manager's office. Our Chairman and CEO serves as the highest authority of the Committee and senior executives serve as committee members. Representatives from other units (Finance Division, R&D Division, Manufacturing Division, Supply Chain Division, Sales and Marketing Division, Administration Division, Industrial Safety Department, Human Resource Department, and Foreign Investor Relations) also serve as committee members. The Sustainability and ESG Committee convenes periodically to organize and implement annual ESG plans. Apart from convening quarterly meetings with all units and related work teams, committee members also convene midyear and year-end ESG target discussion meetings and report on ESG implementation results and plans. Implementation results and areas for improvement are periodically submitted to our Chairman and Board for review. Our Chairman serves as the head of the Sustainability and ESG Committee. The Committee convenes once every six months to review progress reports associated with the targets of each project team. Project teams such as the climate change, greenhouse gas, and RE100 implementation teams have been established under the Sustainability and ESG Committee and are dedicated to the actions and goals of relevant issues.

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 strategy Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	We holds at least 6 board meetings every year. A total of 6 meetings were convened in 2022, with an average attendance rate of 99%. Independent directors attended all Board meetings in person. There were 4 board meetings related to climate-related issues, including climate risk management, TCFD disclosure, and greenhouse gas emissions. Our Chairman and CEO serves as the head of the Sustainability and ESG Committee. The ESG Committee convenes once every six months to review progress reports associated with the targets of each project team. Project teams such as the climate change, greenhouse gas, and RE100 implementation teams have been established under the Sustainability and ESG Committee and are dedicated to the actions and goals of relevant issues. And ESG committee meeting content will be reported in the board meetings.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Board member must have operational judgment, leadership, decision-making, business management, crisis management, industry knowledge and international market perspectives. Shenglin Andrew Tseng, Mei-Ching Tseng, Kao Shiow Ling (representative of Uni-President Enterprises Corporation), Jue-Jia Chang, Chih-Wei Lai, Yen-Shiang Huang, Chih Sheng Chang, Hsing-Chun Chen specialize in business judgment, leadership and decision-making, business management, and crisis handling, and also possess industry knowledge and knowledge of international markets.	<Not Applicable>	<Not Applicable>

C1.2

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

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Half-yearly

Please explain
The Sustainability and ESG Committee was established under the general manager's office. Our Chairman and CEO is the same person. And Our Chairman and CEO serves as the highest authority of the Committee and senior executives serve as committee members. Representatives from other units (Finance Division, R&D Division, Manufacturing Division, Supply Chain Division, Sales and Marketing Division, Administration Division, Industrial Safety Department, Human Resource Department, and Foreign Investor Relations) also serve as committee members. The Sustainability and ESG Committee convenes periodically to organize and implement annual ESG plans. Apart from convening quarterly meetings with all units and related work teams, committee members also convene midyear and year-end ESG target discussion meetings and report on ESG implementation results and plans. Implementation results and areas for improvement are periodically submitted to our Chairman and Board for review. Our Chairman serves as the head of the Sustainability and ESG Committee. The Committee convenes once every six months to review progress reports associated with the targets of each project team. Project teams such as the climate change, greenhouse gas, and RE100 implementation teams have been established under the Sustainability and ESG Committee and are dedicated to the actions and goals of relevant issues.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	We have annual goals every year. Bonuses and remuneration will be awarded based on the annual performance of colleagues and the achievement of goals.

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
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
The current salary structure for our general manager includes both fixed and variable salary components. Our remuneration policies are mainly performance-oriented, so all fixed salaries are designed using the results of our salary surveys and are implemented according to the guidelines on P45-50. Variableremuneration are based on assessments of annual KPIs, achievement of production indicators, and EPS performance. The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
We have designed a specific remuneration system for our CEO, which integrates KPIs and short-to-medium term incentive systems that are used to determine salary levels for the CEO after review and confirmation by the Remuneration Committee. The remuneration for our CEO is linked to assessments of corporate targets, production indicators, EPS performance, and strategic project targets.
The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.
The greenhouse gas inventory is the beginning of the climate transition plan. After confirming the company's GHG emissions, we will set annual carbon reduction targets. Through the implementation of reduction measures, reduce the company's greenhouse gas emissions and related carbon costs.

Entitled to incentive
Chief Sustainability Officer (CSO)

Type of incentive

Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Performance evaluation systems: At the beginning of each year, we set goals for each department (including corporate targets, department targets, and personal targets) based on important annual targets set by the Company, and review and confirm progress throughout the year. We conduct yearend evaluation interviews to verify performance, and evaluation results are used as a basis for determining promotions, salary adjustments, bonuses, and remuneration. The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.
We implement the following target andperformance management system:
(1) Our targets are set for each level from the top down
At the beginning of the year, the general manager's office responds to future developments and formulates annual operational targets. The managers of each department take on these targets based on department functions, following which our colleagues in each department take on work duties associated with work targets.
(2) Target achievements are supported for each level from the bottom up
Achievements of personal targets make it possible for each department to achieve their departmental targets, which in turn make it possible for corporate operational targets to be completed.

Entitled to incentive
Energy manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Achievement of a climate-related target
Energy efficiency improvement
Increased share of renewable energy in total energy consumption

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Performance evaluation systems: At the beginning of each year, we set goals for each department (including corporate targets, department targets, and personal targets) based on important annual targets set by the Company, and review and confirm progress throughout the year. We conduct yearend evaluation interviews to verify performance, and evaluation results are used as a basis for determining promotions, salary adjustments, bonuses, and remuneration.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.
We implement the following target andperformance management system:
(1) Our targets are set for each level from the top down
At the beginning of the year, the general manager's office responds to future developments and formulates annual operational targets. The managers of each department take on these targets based on department functions, following which our colleagues in each department take on work duties associated with work targets.
(2) Target achievements are supported for each level from the bottom up
Achievements of personal targets make it possible for each department to achieve their departmental targets, which in turn make it possible for corporate operational targets to be completed.

Entitled to incentive
All employees

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Performance evaluation systems: At the beginning of each year, we set goals for each department (including corporate targets, department targets, and personal targets) based on important annual targets set by the Company, and review and confirm progress throughout the year. We conduct yearend evaluation interviews to verify performance, and evaluation results are used as a basis for determining promotions, salary adjustments, bonuses, and remuneration.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The 2022 climate-related annual target is to implement the ISO 14064 greenhouse gas inventory system and achieve a 1.3% electricity saving rate.
We implement the following target andperformance management system:
(1) Our targets are set for each level from the top down
At the beginning of the year, the general manager's office responds to future developments and formulates annual operational targets. The managers of each department take on these targets based on department functions, following which our colleagues in each department take on work duties associated with work targets.
(2) Target achievements are supported for each level from the bottom up
Achievements of personal targets make it possible for each department to achieve their departmental targets, which in turn make it possible for corporate operational

targets to be completed.

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	3	By short term Grape King Bio mean 1 to 3 year which takes us to 2025. This is a normal planning cycle.
Medium-term	3	10	By medium term Grape King Bio mean 3 to 10 years which takes us to 2030. 2030 also aligns with the timeframe of the UN Sustainable Development Goals.
Long-term	10	30	Reaching carbon neutrality of our Sites and Operations by 2050 is our longest-term action.

C2.1b

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

In 2021, the ESG Committee invited the heads and executives of each implementation team to assess the current major climate risks and opportunities faced by Grape King Bio using the TCFD questionnaire. We collected a total of 19 responses and used these to build a TCFD materiality matrix which identified our climate risks and opportunities. A substantive financial or strategic impact for the Group is a potential financial loss >1% of the revenue that has a high risk of occurrence. The indicator to define a substantive financial or strategic impact is therefore the % of loss of revenue.

C2.2

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

Value chain stage(s) covered
Direct operations
Upstream
Downstream

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

Frequency of assessment
Annually

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
We have established risk management mechanisms; implement risk assessments, risk identification, and risk handling activities; conduct audits and verifications in line with standard international risk management frameworks. We differentiate risk into financial risks, operational risks, strategic risks, hazard risks, climate change risks.
1. Identifying: Grape King Bio invited the heads and executives of each implementation team to assess the current major climate risks and opportunities through the TCFD questionnaire and build a materiality matrix which identified our climate risks and opportunities.
2. Assessing: We assess physical climate risks, transition climate risks, and opportunities, by possible timeline, degree of Impact, financial impacts, etc.
3. Responding: According to the assessment of each risk, we take appropriate response measures.
Example :
1-1. Physical climate risk- Increasing frequency of natural disasters due to climate change, which may cause power outages.
1-2. Assess this risk as a Medium level of impact that occurs in the Short to medium term, which may result in an increase in operational costs and capital expenditures for the company.
1-3. Response measures- Grape King Bio factories use power transmitted via underground power cables to prevent disruption of power transmission and distribution through aerial cables from natural disasters. We have also installed emergency generators and UPS backup systems for our firefighting systems and important equipment to reduce losses from unexpected power outages.
2-1. Transition climate risk- Increased use of renewable energy in response to the requirements of international initiatives.
2-2. Assess this risk as a medium level of impact that occurs in the Short to medium term, which may result in an increase in capital expenditures for the company.
2-3. Response measures- We achieved a 1.44% of energy savings across all three factories in 2022. Additionally, we completed installation of our solar photovoltaic system at Longtan Factory, which is expected to generate 183,960 kWh of electricity over its first year of operations. We also purchased a cumulative 300,000 kWh of green electricity.

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	Increased use of renewable energy in response to the requirements of international initiatives: A report issued by the International Energy Agency (IEA) stated that, in order to achieve global sustainability, use of renewable energy should be increased from 25% in 2019 to 50% in 2030.
Emerging regulation	Relevant, always included	Increased operating costs due to carbon prices: In order to reduce greenhouse gas emissions, governments worldwide have begun to enact carbon levies on enterprises; enterprises are moving towards low-carbon practices to reduce the risks and costs of carbon emissions.
Technology	Relevant, always included	Technology risks (improvements or innovations that support the transition to a low-carbon, energy-efficient economic system) are relevant operational risks and always included in climate-related risk assessments. We will assess the potential environmental impact of new products in early development in terms of carbon footprint or the potential amount of and type of waste.
Legal	Relevant, always included	Grape King Bio have not been subject to any climate related litigation to date and do not anticipate future litigation as a substantive risk.
Market	Relevant, always included	Increased raw material costs due to the impacts of climate change on sourcing regions: A report from the Food and Agriculture Organization of the United Nations (FAO) indicates that continual changes in weather and rainfall patterns are causing agricultural losses of US$220 billion each year from just plant diseases and pests alone, thus raising the costs of agricultural raw materials.
Reputation	Relevant, always included	Increasing investor interest in ESG performance: At present, investors of multinational enterprises are paying increasing attention to the Environmental (E), Social (S), and Governance (G) performance of these corporations. There is therefore a need for these companies to continually enhance their sustainability actions and performance to attract investors.
Acute physical	Relevant, always included	Increasing storm severity due to climate change may cause power outages: According to the "Statistics on Power Outages Caused by Natural Disasters" report compiled by Taiwan Power Company, Taiwan has experienced many regional power outages over the years caused by heavy rains or typhoons. The Updated Report for Evaluation and Analysis of Climate Change in Taiwan released by the Academia Sinica Research Center for Environmental Changes Anthropogenic Climate Change Center also indicated that the number of typhoons affecting Taiwan in the mid-21st century and the late 21st century will be reduced by 15% and 55%, respectively, but the proportion of severe typhoons will be increased by 100% and 50% in those same two time periods. The increased number of severe typhoons could result in more frequent power outages.
Chronic physical	Relevant, always included	Operational pressures and shocks due to scarcity of water resources: The National Science and Technology Center for Disaster Reduction has reported that climate change will lead to more extreme rainfall discrepancies during the wet and dry seasons, estimating that spring rainfall volumes will decrease by 13.2% and the number of consecutive days without rain in the spring will increase by 55.7% during 2046-2065. Taiwan suffered a large-scale drought during the first half of 2021, and therefore Taoyuan City and many other regions saw a reduction in water pressure, restrictions on water supply, and suspended irrigation. Continued changes in future rainfall characteristics may impact reservoir water volumes and in turn affect corporate water usage.

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?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Other, please specify (Increased use of renewable energy in response to the requirements of international initiatives:)

Primary potential financial impact

Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Increased use of renewable energy in response to the requirements of international initiatives:
A report issued by the International Energy Agency (IEA) stated that, in order to achieve global sustainability, use of renewable energy should be increased from 25% in 2019 to 50% in 2030.
Grape King Bio made a commitment to join the RE100 in 2019. We plan to achieve our first-stage target of 15% renewable energy usage by 2030 and achieve full use of renewable energies by 2035.
We achieved a 1.44% of energy savings across all three factories in 2022. Additionally, we completed installation of our solar photovoltaic system at Longtan Factory, which is expected to generate 183,960 kWh of electricity over its first year of operations. We also purchased a cumulative 300,000 kWh of green electricity.

Time horizon

Short-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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

Technology	Substitution of existing products and services with lower emissions options

Primary potential financial impact
Increased capital expenditures

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

Company-specific description
Development trends of low-carbon technologies and increased costs from technological transformations:
The World Economic Outlook Report stated that innovative R&D technologies are important measures that can improve product designs, reduce overall greenhouse gas emissions over product life cycles, and enhance product efficiency. At present, many countries have incorporated circular economy concepts into policy planning, and actively promote use of alternative materials (such as recycled aluminum and plastics) in corporate production to reduce environmental impacts from products.
We actively work to reduce the environmental impacts from our product lifecycles. In terms of sustainable packaging, recyclable plastic materials are one of the main packaging products used by Grape King Bio, and we will continue to establish recycling sites. We also continue to assess and develop products which use packaging made from plastic-free paper materials and recyclable materials.

Time horizon
Short-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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Increased raw material costs due to the impacts of climate change on sourcing regions:
A report from the Food and Agriculture Organization of the United Nations (FAO) indicates that continual changes in weather and rainfall patterns are causing agricultural losses of US$220 billion each year from just plant diseases and pests alone, thus raising the costs of agricultural raw materials.
In 2022, Grape King Bio established four strategies to prevent stockouts, including completion rates of customer orders, Pro-Partner's continuous supply goals, raw materials and spare components assessment goals, recovery rates of sustainability self-assessment surveys from key suppliers, and SIMP promotion rates.

Time horizon
Short-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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 4

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

Risk type & Primary climate-related risk driver

Market	Other, please specify (Impacts on energy expenditures due to fluctuations in international energy prices)

Primary potential financial impact
Increased capital expenditures

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

Company-specific description
Impacts on energy expenditures due to fluctuations in international energy prices:
Use of coal and petroleum rebounded sharply in 2021 compared with 2020, leading to an increase in crude oil prices for that year. In 2022, the Russia-Ukraine war caused oil and natural gas prices to rise, highlighting the volatility of international energy prices.
Grape King Bio has established energy management policies in response to the impacts of fluctuations on international energy prices. Our Pingzhen Headquarters has not only obtained ISO14001 Environmental Management System certification, but also began implementing the ISO50001 Energy Management System in 2019. Additionally, our participation in RE100 is a commitment to achieve 100% renewable energy usage by 2025 and implement our goals for reduction of carbon emissions.

Time horizon
Short-term

Likelihood
Very 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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 5

Where in the value chain does the risk driver occur?

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact
Decreased access to capital

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

Company-specific description
Increasing investor interest in ESG performance:
At present, investors of multinational enterprises are paying increasing attention to the Environmental (E), Social (S), and Governance (G) performance of these corporations. There is therefore a need for these companies to continually enhance their sustainability actions and performance to attract investors.
Grape King Bio actively responds to the ESG performance requirements of international investors. We continue to implement sustainability actions in all aspects and publicly disclose these in our Sustainability Report (ESG Report). Apart from our Sustainability Report, we also continued to be ranked in the top 5% of domestic companies by the TWSE Corporate Governance Evaluations.
Internationally, our Sustainalytics and FTSE Russell ratings for 2022 continue to surpass many of our international peers.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Low

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)
0

Potential financial impact figure – maximum (currency)
6719695

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax

Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 6

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

Risk type & Primary climate-related risk driver

Acute physical	Cyclone, hurricane, typhoon

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Increasing frequency of natural disasters due to climate change, which may cause power outages:
According to the “Statistics on power outages caused by natural disasters” compiled by Taiwan Power Company, Taiwan has experienced many regional power outages over the years which were caused by heavy rains or typhoons. The Updated Report for Evaluation and Analysis of Climate Change in Taiwan released by the Academia Sinica Research Center for Environmental Changes Anthropogenic Climate Change Center also suggested that the number of typhoons that would affect Taiwan in the middle of the 21st century and the late 21st century will be reduced by 15% and 55%, respectively, but the proportion of severe typhoons would be increased by 100% and 50% in those same two time periods. The increased number of severe typhoons could result in more frequent power outages.
Grape King Bio factories use power transmitted via underground power cables to prevent disruption of power transmission and distribution through aerial cables from natural disasters. We have also installed emergency generators and UPS backup systems for our firefighting systems and important equipment to reduce losses from unexpected power outages.

Time horizon
Short-term

Likelihood
Very 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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier
Risk 7

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

Risk type & Primary climate-related risk driver

Chronic physical	Water scarcity

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Operational pressures and shocks due to scarcity of water resources:
The National Science and Technology Center for Disaster Reduction has suggested that climate change will lead to more extreme rainfall discrepancies during the wet and dry seasons, estimating that spring rainfall will decrease by 13.2% and the number of consecutive days without rain in the spring will increase by 55.7% from 2046-2065.
Taiwan suffered a large-scale drought during the first half of 2021. The first half of 2023 also brought the most severe drought on record in the south of Taiwan for 30 years. Taoyuan City and many other regions saw a reduction in water pressure, restrictions on water supply, and suspended irrigation. Continued changes in future rainfall characteristics may impact reservoir water volumes and in turn affect corporate water usage.
Grape King Bio developed a process water recirculation system by making simple adjustments to existing equipment and systems to recycle concentrated process water originally discharged to wastewater plants for reuse in our factories, thereby reducing wasted water resources and wastewater volumes.
In 2022, all RO concentrate water at our three factories (Pingzhen Factory, Zhongli Factory, and Longtan Branch) was recycled for reuse in cooling towers, and the total amount of water recycled was 34,071 tons.

Time horizon
Short-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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost of response to risk

Description of response and explanation of cost calculation

Comment

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?

Opportunity type
Markets

Primary climate-related opportunity driver
Other, please specify (Expand ESG disclosures to attract investor interest)

Primary potential financial impact
Increased access to capital

Company-specific description
Expand ESG disclosures to attract investor interest:
Corporate ESG disclosures are a key factor in the achievement of sustainable development goals. Major investment firms around the world have even formed climate change networks and launched the Climate Action 100+ initiative which prioritizes negotiations with companies which have already committed to net zero emissions and implementation of clean energy transformations.
Faced with the impacts of climate change, Grape King Bio has committed to join the RE100 initiative, signed on as a TCFD Supporter, and prepared disclosures based on the TCFD framework in response to global climate targets and to strengthen our own emphasis on climate change risks.

Time horizon
Short-term

Likelihood
Very 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)
6719695

Potential financial impact figure – maximum (currency)
100795425

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Faced with the impacts of climate change, Grape King Bio has committed to join the RE100 initiative, signed on as a TCFD Supporter, and prepared disclosures based on the TCFD framework in response to global climate targets and to strengthen our own emphasis on climate change risks.

Comment

Identifier
Opp2

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

Opportunity type
Resource efficiency

Primary climate-related opportunity driver

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Reduce risks from greenhouse gas emissions and increase resilience to carbon levy changes:
The World Economic Outlook (WEO) Report points out that one important measure to reduce overall greenhouse gas emissions and improve product efficiency is through innovative research and development technologies and product design improvements. Currently, many countries have incorporated the concept of a circular economy into their policy planning and actively promote the use of alternative materials (such as recycled aluminum, recycled plastic, etc.) in corporate production to reduce the environmental impact of products.
Grape King Bio continues to implement sustainable actions. The FSCTM certified materials used in our aluminum foil products and our “Bottles of Love” initiative help to mitigate our environmental and climate impacts while enhancing consumer health.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Low

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)
0

Potential financial impact figure – maximum (currency)
6719695

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Grape King Bio continues to implement sustainable actions. The FSCTM certified materials used in our aluminum foil products and our “Bottles of Love” initiative help to mitigate our environmental and climate impacts while enhancing consumer health.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Provide low-carbon products and services to meet increased demand for green consumption:
In order to reduce greenhouse gas emissions, governments worldwide have begun to enact carbon tax on enterprises; enterprises are moving towards low-carbon practices to reduce the risks and costs of carbon emissions.
To better integrate sustainability concepts into product development, we plan to develop 1-2 sustainable products that use plastic-free paper, recyclable materials, and raw materials and formulation designs that adhere to the spirit of the SDGs.
Additionally, we have established energy management policies, our Pingzhen Headquarters has obtained ISO14001 Environmental Management System certification and began implementing the ISO50001 Energy Management System in 2019, and our participation in RE100 is a commitment to achieve 100% renewable energy usage by 2035 and implement our goals for reduction of carbon emissions.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Low

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)
0

Potential financial impact figure – maximum (currency)
6719695

Explanation of financial impact figure
There are no internationally accepted definitions regarding timelines and financial impacts of climate risks and opportunities, we use the following definitions based on consensuses reached by internal and external experts and internal managers.
Level of financial impacts:
Material- 5% of net profits before tax
High- 3.75%-5% of net profits before tax
Medium- 0.25%-3.75% of net profits before tax
Low- 0.25% of net profits before tax

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
To better integrate sustainability concepts into product development, we plan to develop 1-2 sustainable products that use plastic-free paper, recyclable materials, and raw materials and formulation designs that adhere to the spirit of the SDGs.
Additionally, we have established energy management policies, our Pingzhen Headquarters has obtained ISO14001 Environmental Management System certification and began implementing the ISO50001 Energy Management System in 2019, and our participation in RE100 is a commitment to achieve 100% renewable energy usage by 2035 and implement our goals for reduction of carbon emissions.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan
No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Publicly available climate transition plan
<Not Applicable>

Mechanism by which feedback is collected from shareholders on your climate transition plan
<Not Applicable>

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)
<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future
We expect to commit to the Science Based Targets Initiative (SBTi) by 2023, and commit to the SBTi 1.5°C target in 2024.

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

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

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative	<Not Applicable>	<Not Applicable>

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios RCP 8.5	Facility	<Not Applicable>	Grape King Bio and Pro-Partner's main production bases are Pingzhen Factory, Zhongli Factory, and Longtan Branch located in Taoyuan City. We adopted the RCP2.6, RCP4.5, RCP6.0, and RCP8.5 proposed by IPCC AR5 and used publicly available data taken from the Taiwan Climate Change Projection Information and Adoption Knowledge Platform (TCCIP) to run analyses in Taoyuan City (where our main production bases are located) for the short-term (-2035), medium term (2046-2065), and up to the end of the current century (2080-2100) to understand the average changes in daily maximum temperatures (Note 1) and average rate of change in daily maximum rainfall volume for the year (Note 2) for the different scenarios. Compared with the base period (1986-2005), Taoyuan City is expected to see an average rise in temperature of 1.9°C and reach maximum temperatures of 35.3°C this century under the worst-case scenario (RCP8.5). Research conducted by Academia Sinica based on information taken from the National Health Insurance Research Database shows that the number of days where the temperature was higher than 34°C has increased, and this has increased the number of emergency patients suffering from heat stroke and other associated conditions. Additionally, maximum daily rainfall volumes will increase by 35.34 mm, reaching 221.34 mm, increasing the risks of short-duration intense rainfall. Current municipal drainage systems may not be able to drain the excess water in a timely manner, so cities and factore at risk of flood, and people outdoors may be at risk of emergencies.
Physical climate scenarios RCP 6.0	Facility	<Not Applicable>	Grape King Bio and Pro-Partner's main production bases are Pingzhen Factory, Zhongli Factory, and Longtan Branch located in Taoyuan City. We adopted the RCP2.6, RCP4.5, RCP6.0, and RCP8.5 proposed by IPCC AR5 and used publicly available data taken from the Taiwan Climate Change Projection Information and Adoption Knowledge Platform (TCCIP) to run analyses in Taoyuan City (where our main production bases are located) for the short-term (-2035), medium term (2046-2065), and up to the end of the current century (2080-2100) to understand the average changes in daily maximum temperatures (Note 1) and average rate of change in daily maximum rainfall volume for the year (Note 2) for the different scenarios. Compared with the base period (1986-2005), Taoyuan City is expected to see an average rise in temperature of 1.9°C and reach maximum temperatures of 35.3°C this century under the worst-case scenario (RCP8.5). Research conducted by Academia Sinica based on information taken from the National Health Insurance Research Database shows that the number of days where the temperature was higher than 34°C has increased, and this has increased the number of emergency patients suffering from heat stroke and other associated conditions. Additionally, maximum daily rainfall volumes will increase by 35.34 mm, reaching 221.34 mm, increasing the risks of short-duration intense rainfall. Current municipal drainage systems may not be able to drain the excess water in a timely manner, so cities and factore at risk of flood, and people outdoors may be at risk of emergencies.
Physical climate scenarios RCP 4.5	Facility	<Not Applicable>	Grape King Bio and Pro-Partner's main production bases are Pingzhen Factory, Zhongli Factory, and Longtan Branch located in Taoyuan City. We adopted the RCP2.6, RCP4.5, RCP6.0, and RCP8.5 proposed by IPCC AR5 and used publicly available data taken from the Taiwan Climate Change Projection Information and Adoption Knowledge Platform (TCCIP) to run analyses in Taoyuan City (where our main production bases are located) for the short-term (-2035), medium term (2046-2065), and up to the end of the current century (2080-2100) to understand the average changes in daily maximum temperatures (Note 1) and average rate of change in daily maximum rainfall volume for the year (Note 2) for the different scenarios. Compared with the base period (1986-2005), Taoyuan City is expected to see an average rise in temperature of 1.9°C and reach maximum temperatures of 35.3°C this century under the worst-case scenario (RCP8.5). Research conducted by Academia Sinica based on information taken from the National Health Insurance Research Database shows that the number of days where the temperature was higher than 34°C has increased, and this has increased the number of emergency patients suffering from heat stroke and other associated conditions. Additionally, maximum daily rainfall volumes will increase by 35.34 mm, reaching 221.34 mm, increasing the risks of short-duration intense rainfall. Current municipal drainage systems may not be able to drain the excess water in a timely manner, so cities and factore at risk of flood, and people outdoors may be at risk of emergencies.
Physical climate scenarios RCP 2.6	Facility	<Not Applicable>	Grape King Bio and Pro-Partner's main production bases are Pingzhen Factory, Zhongli Factory, and Longtan Branch located in Taoyuan City. We adopted the RCP2.6, RCP4.5, RCP6.0, and RCP8.5 proposed by IPCC AR5 and used publicly available data taken from the Taiwan Climate Change Projection Information and Adoption Knowledge Platform (TCCIP) to run analyses in Taoyuan City (where our main production bases are located) for the short-term (-2035), medium term (2046-2065), and up to the end of the current century (2080-2100) to understand the average changes in daily maximum temperatures (Note 1) and average rate of change in daily maximum rainfall volume for the year (Note 2) for the different scenarios. Compared with the base period (1986-2005), Taoyuan City is expected to see an average rise in temperature of 1.9°C and reach maximum temperatures of 35.3°C this century under the worst-case scenario (RCP8.5). Research conducted by Academia Sinica based on information taken from the National Health Insurance Research Database shows that the number of days where the temperature was higher than 34°C has increased, and this has increased the number of emergency patients suffering from heat stroke and other associated conditions. Additionally, maximum daily rainfall volumes will increase by 35.34 mm, reaching 221.34 mm, increasing the risks of short-duration intense rainfall. Current municipal drainage systems may not be able to drain the excess water in a timely manner, so cities and factore at risk of flood, and people outdoors may be at risk of emergencies.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

1.Increased likelihood of heat injuries in employees
2.Increased likelihood of short-duration intense rainfall

Results of the climate-related scenario analysis with respect to the focal questions

1.
·We conduct annual scenario to analyze the management systems at our factories so we can understand the conditions, risks, and opportunities faced by factory personnel and propose plans for improvement based around these issues.
·We facilitate regular health checks for our employees.
·Our chairman signed a workplace health promotion declaration in 2021, and we continue to host occupational health and safety activities each year to help our employees build their safety inspection, emergency first-aid, and health management capabilities.
2.
·We continue to evaluate flood prevention measures at our factories and strengthen our responses to acute flooding disasters.
·We monitor water conditions using real-time information provided by the Water Resources Agency and formulate corresponding countermeasures.

C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	No	
Supply chain and/or value chain	No	
Investment in R&D	No	
Operations	Yes	Taoyuan City is expected to see an average rise in temperature of 1.9°C and reach maximum temperatures of 35.3°C this century under the worst-case scenario (RCP8.5). Research conducted by Academia Sinica based on information taken from the National Health Insurance Research Database shows that the number of days where the temperature was higher than 34°C has increased, and this has increased the number of emergency patients suffering from heat stroke and other associated conditions. Additionally, maximum daily rainfall volumes will increase by 35.34 mm, reaching 221.34mm, increasing the risks of short-duration intense rainfall. Current municipal drainage systems may not be able to drain the excess water in a timely manner, so cities and factore at risk of flood, and people outdoors may be at risk of emergencies. Increased likelihood of heat injuries in employees: ·We conduct annual scenario to analyze the management systems at our factories so we can understand the conditions, risks, and opportunities faced by factory personnel and propose plans for improvement based around these issues. ·We facilitate regular health checks for our employees. ·Our chairman signed a workplace health promotion declaration in 2021, and we continue to host occupational health and safety activities each year to help our employees build their safety inspection, emergency first-aid, and health management capabilities. Increased likelihood of short-duration intense rainfall: ·We continue to evaluate flood prevention measures at our factories and strengthen our responses to acute flooding disasters. ·We monitor water conditions using real-time information provided by the Water Resources Agency and formulate corresponding countermeasures.

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Indirect costs Capital expenditures	In order to avoid Increased likelihood of heat injuries in employees, the costs on employee health management and emergency rescue equipment will be increased. In order to prevent short-duration intense rainfall, the factory's flood prevention measures and costs will be increased.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

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

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	In 2023, obtained ISO14064 certification and committed to Science Based Targets Initiative(SBTi). In 2024, SBTi target valided and disclosed.	Until 2023, we have verified GHG data, so we have not yet set an emissions target. In 2023, obtained ISO14064 certification and committed to Science Based Targets Initiative(SBTi). In 2024, SBTi target valided and disclosed. Besides, we implemented greenhouse gas and carbon reduction project every year.

C4.2

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

Target(s) to increase low-carbon energy consumption or production

Other climate-related target(s)

C4.2a

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

Target reference number

Low 1

Year target was set

2019

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2018

Consumption or production of selected energy carrier in base year (MWh)

0

% share of low-carbon or renewable energy in base year

0

Target year

2035

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

0.96

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Is this target part of an emissions target?

This target is part of an emissions target. When the use of renewable energy is increased, greenhouse gas emissions are reduced.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

This target is a group target.

Plan for achieving target, and progress made to the end of the reporting year

Grape King Bio committed to the first stage of 15% usage of renewable energy by 2030 and the second stage of 100% usage of renewable energy by 2035.
In 2021, we signed a two-year contract to purchase green energy (solar power) from a renewable energy company.
In June 2022, we began transferring solar power to our Pingzhen headquarters, and have transferred 300,000 kWh as of November 30.
The solar photovoltaic system at Longtan Factory was completed and began generating electricity for self-use on November 10, 2022, with an installed capacity of 180 kW.
We generated a total of 11,693 kWh of solar photovoltaic energy in 2022.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.2b

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

Target reference number
Oth 1

Year target was set
2022

Target coverage
Site/facility

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency	kWh

Target denominator (intensity targets only)
<Not Applicable>

Base year
2022

Figure or percentage in base year
0.01

Target year
2025

Figure or percentage in target year
0.15

Figure or percentage in reporting year
0.0144

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Is this target part of an emissions target?
This target is part of an emissions target. When the use of energy consumption is decreased, greenhouse gas emissions are reduced.

Is this target part of an overarching initiative?
Please select

Please explain target coverage and identify any exclusions
We set an electricity-saving target of 1.3% in 2022 for our Pingzhen factory, Zhongli factory, and Longtan branch.

Plan for achieving target, and progress made to the end of the reporting year
We reduced our electricity usage by 396,339 kWh and achieved an electricity-saving rate of 1.44%.

List the actions which contributed most to achieving this target
<Not Applicable>

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	0	
To be implemented*	0	0
Implementation commenced*	1	93.64
Implemented*	2	354.44
Not to be implemented	0	

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
201.74

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1070115

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment

Initiative category & Initiative type

Low-carbon energy consumption	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
152.7

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (market-based)
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
1710000

Payback period
No payback

Estimated lifetime of the initiative
1-2 years

Comment

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
93.64

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (market-based)
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
1048572

Investment required (unit currency – as specified in C0.4)
8000000

Payback period
11-15 years

Estimated lifetime of the initiative
16-20 years

Comment

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Company has held an energy-saving and carbon reduction event at all three factories. The annual goals for 2021 were to achieve an energy efficiency rate of 1.5% and 420,111 kilowatt-hours. With the participation of all factories and an energy-saving incentive pay, a total of 51 energy-saving measures were raised. The energy-saving rate reached 3.3% and 942,208 kilowatt-hours, equivalent to 472,988 kg reduction in carbon dioxide emissions.
Employee engagement	Company has held an energy-saving and carbon reduction event at all three factories. The annual goals for 2021 were to achieve an energy efficiency rate of 1.5% and 420,111 kilowatt-hours. With the participation of all factories and an energy-saving incentive pay, a total of 51 energy-saving measures were raised. The energy-saving rate reached 3.3% and 942,208 kilowatt-hours, equivalent to 472,988 kg reduction in carbon dioxide emissions.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

No

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	The scope is Grape King Bio and Pro-Partner LTD.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 2, market-based Scope 3	If one of the following situations occurs, and the cumulative change is higher than the significance threshold (3%), consideration should be given to recalculating the greenhouse gas emissions in the base year. (1) Reporting boundaries or structural changes in organizational boundaries (such as mergers, acquisitions, or splits). (2) Changes in calculation methods or emission factors. (3) Single or cumulative errors are found, and the errors are substantial.	No

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation

C5.2

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

Scope 1

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
5633.722

Comment
The scope is Grape King Bio and Pro-Partner LTD.

Scope 2 (location-based)

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
16702.446

Comment
The scope is Grape King Bio and Pro-Partner LTD.

Scope 2 (market-based)

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
16544.054

Comment
The scope is Grape King Bio and Pro-Partner LTD.

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
16947.173

Comment
Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
3584.505

Comment
Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
105.484

Comment
Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start
January 1 2022

Base year end
December 31 2022

Base year emissions (metric tons CO2e)
1216.787

Comment
Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.
Category 5: Investments include Pro-Partner Co.,Ltd. and Rivershine Ltd.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
ISO 14064-1

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)
5633.722

Start date
January 1 2022

End date
December 31 2022

Comment
The scope is Grape King Bio and Pro-Partner LTD.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
3862.04

Start date
January 1 2021

End date
December 31 2021

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch) and Pro-Partner LTD.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
3753.74

Start date
January 1 2020

End date
December 31 2020

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch).

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
3421.58

Start date
January 1 2019

End date
December 31 2019

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch).

C6.2

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

Row 1

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

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

Comment

C6.3

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

Reporting year

Scope 2, location-based
16702.446

Scope 2, market-based (if applicable)
16544.054

Start date
January 1 2022

End date
December 31 2022

Comment
The scope is Grape King Bio and Pro-Partner LTD.

Past year 1

Scope 2, location-based
14829.39

Scope 2, market-based (if applicable)
14829.39

Start date
January 1 2021

End date
December 31 2021

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch) and Pro-Partner LTD.

Past year 2

Scope 2, location-based
14255.77

Scope 2, market-based (if applicable)
14255.77

Start date
January 1 2020

End date
December 31 2020

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch).

Past year 3

Scope 2, location-based
13074.92

Scope 2, market-based (if applicable)
13074.92

Start date
January 1 2019

End date
December 31 2019

Comment
The scope is Grape King Bio three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch).

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions
The reporting boundaries are taken from Grape King Bio, Pro-Partner, and Rivershine Co. Ltd. in the Taiwan region. In future, we will gradually expand the scope of reporting boundary to include Grape King Bio International Investment, Shanghai Grape King Bio Enterprise Corporation, Shanghai Rivershine Ltd., and Elite Propartner Holdings Sdn. Bhd. to provide more comprehensive and accurate information.
Note：Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.

Scope(s) or Scope 3 category(ies)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3: Purchased goods and services
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Waste generated in operations
Scope 3: Investments

Relevance of Scope 1 emissions from this source
Emissions are relevant but not yet calculated

Relevance of location-based Scope 2 emissions from this source
Emissions are relevant but not yet calculated

Relevance of market-based Scope 2 emissions from this source
Emissions are relevant but not yet calculated

Relevance of Scope 3 emissions from this source
Emissions are relevant but not yet calculated

Date of completion of acquisition or merger
<Not Applicable>

Estimated percentage of total Scope 1+2 emissions this excluded source represents
16

Estimated percentage of total Scope 3 emissions this excluded source represents
34

Explain why this source is excluded
It is planned to complete the greenhouse gas inventory of Grape King Bio Group in 2024.

Explain how you estimated the percentage of emissions this excluded source represents
We estimated the percentage of emissions by using similarly sized plant sites.

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

Emissions in reporting year (metric tons CO2e)
16947.173

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
50

Please explain

Capital goods

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from capital goods.

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

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
3584.505

Emissions calculation methodology
Hybrid method

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

Please explain

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from upstream transportation and distribution.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
105.484

Emissions calculation methodology
Hybrid method

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

Please explain

Business travel

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from business travel.

Employee commuting

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from employee commuting.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from upstream leased assets.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from downstream transportation and distribution.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from processing of sold products.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from use of sold products.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
In the process of identifying significant indirect greenhouse gas emissions, Grape King Bio pays more attention to the degree of internal and external attention to the emission source, the size of the emission volume, and whether the organization has the ability to control the emission source. So, we appropriately adjusts the weights according to the importance of emissions to identify the emission sources that the organization is concerned about. After the identification process, we exclude the emissions from end of life treatment of sold products

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
We do not have any downstream leased assets, so this category is not relevant to our organization.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
We do not have any franchises, so this category is not relevant to our organization.

Investments

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1216.788

Emissions calculation methodology
Hybrid method

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

Please explain
Note1: Scope 3 boundary includes only Grape King Bio, excluding subsidiaries.
Note2: Category 5: Investments include Pro-Partner Co.,Ltd. and Rivershine Ltd.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
Grape King Bio does not have other upstream emissions.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
Grape King Bio does not have other downstream emissions.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

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
2.1342780851

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
22177.78

Metric denominator
unit total revenue

Metric denominator: Unit total
10391000000

Scope 2 figure used
Market-based

% change from previous year
11.9

Direction of change
Increased

Reason(s) for change
Change in boundary

Please explain
The scope is Grape King Bio and Pro-Partner LTD.
Following ISO 14064, therefore several offices and factories have been added to Grape King Bio this year.
The scope is different between 2021 and 2022. In 2021, the scope includes Grape King Bio's three factories in Taiwan (Pingzhen Factory, Zhongli Factory, and Longtan Branch) and Pro-Partner LTD. In 2022, in addition to the existing scope in 2021, the scope also covers Distribution Center, Taipei Sales Office, Telesales Center and Grape King Health and Vitality Power Center.

C7. Emissions breakdowns

C7.1

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

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	4107.35	IPCC Sixth Assessment Report (AR6 - 20 year)
CH4	167.134	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	3.305	IPCC Sixth Assessment Report (AR6 - 100 year)
HFCs	1355.934	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Taiwan, China	5633.722

C7.3

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
On site fuel use	3359.881
emissions from vehicles	68.293
emissions from ancillary equipment on sites	1368.102
emissions during manufacturing	837.447

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Taiwan, China	16702.446	16544.054

C7.6

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

By activity

C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Consumption of electricity	16702.446	16544.054

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name
Pro-Partner Co.,Ltd.

Primary activity
Consumer goods wholesale & rental

Select the unique identifier(s) you are able to provide for this subsidiary
Another unique identifier, please specify (Government Uniform Invoice number)

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
84591036

Scope 1 emissions (metric tons CO2e)
12.996

Scope 2, location-based emissions (metric tons CO2e)
1237.791

Scope 2, market-based emissions (metric tons CO2e)
1237.791

Comment

Subsidiary name
Rivershine Co. Ltd.

Primary activity
Consumer goods wholesale & rental

Select the unique identifier(s) you are able to provide for this subsidiary
Another unique identifier, please specify (Government Uniform Invoice number)

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
42572374

Scope 1 emissions (metric tons CO2e)
0

Scope 2, location-based emissions (metric tons CO2e)
0

Scope 2, market-based emissions (metric tons CO2e)
0

Comment
The location of Rivershine Co. Ltd. is the same as that of Grape King Bio.
Scope 1 & 2 GHG emissions of Rivershine Co. Ltd. are included in Grape King Bio.

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary	3486.347	Increased	0.1572	The scope is Grape King Bio and Pro-Partner LTD. Following ISO 14064, therefore several offices and factories have been added to Grape King Bio this year.
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?

Market-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)	Unable to confirm heating value	0	18688.5	18688.5
Consumption of purchased or acquired electricity	<Not Applicable>	300	32178.4	32478.4
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>	11.7	<Not Applicable>	11.7
Total energy consumption	<Not Applicable>	311.7	50866.9	51178.6

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	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Sustainable biomass

Heating value
Please select

Total fuel MWh consumed by the organization

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

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

Comment

Other biomass

Heating value
Please select

Total fuel MWh consumed by the organization

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

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

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Please select

Total fuel MWh consumed by the organization

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

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

Comment

Coal

Heating value
Please select

Total fuel MWh consumed by the organization

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

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

Comment

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
254.4

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
254.4

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

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

Comment

Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
18434.1

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
18434.1

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

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

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Please select

Total fuel MWh consumed by the organization

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

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

Comment

Total fuel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
18688.5

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

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
18688.5

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

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

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	11.7	0	11.7	11.7
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Taiwan, China

Consumption of purchased electricity (MWh)
32478.4

Consumption of self-generated electricity (MWh)
11.7

Is this electricity consumption excluded from your RE100 commitment?
No

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

C8.2h

(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Country/area of consumption of purchased renewable electricity
Taiwan, China

Sourcing method
Physical power purchase agreement (physical PPA) with a grid-connected generator

Renewable electricity technology type
Solar

Renewable electricity consumed via selected sourcing method in the reporting year (MWh)
300

Tracking instrument used
T-REC

Country/area of origin (generation) of purchased renewable electricity
Taiwan, China

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Vintage of the renewable energy/attribute (i.e. year of generation)
2022

Supply arrangement start year
2022

Additional, voluntary label associated with purchased renewable electricity
No additional, voluntary label

Comment
In 2021, we signed a two-year contract to purchase green energy (solar power) from a renewable energy company and begin utilizing green energy in June 2022.

C8.2j

(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.

Country/area of generation
Taiwan, China

Renewable electricity technology type
Solar

Facility capacity (MW)
0.18

Total renewable electricity generated by this facility in the reporting year (MWh)
11.7

Renewable electricity consumed by your organization from this facility in the reporting year (MWh)
11.7

Energy attribute certificates issued for this generation
Yes

Type of energy attribute certificate
T-REC

Comment
We will build 180kW solar power generation in 2022.

C8.2k

(C8.2k) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.

The renewable energy we purchase is not a renewable energy project promoted by government policies, but is built by general renewable energy generators or the public, and is a new construction outside the policy.

C8.2l

(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

C8.2m

(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
Taiwan, China	Limited supply of renewable electricity in the market Prohibitively priced renewable electricity	

C9. Additional metrics

C9.1

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

Description
Please select

Metric value

Metric numerator

Metric denominator (intensity metric only)

% change from previous year

Direction of change
<Not Applicable>

Please explain

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
ISO 14064溫室氣體查驗報告書(EN)2022.pdf

Page/ section reference

Relevant standard
ISO14064-1

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 market-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
ISO 14064溫室氣體查驗報告書(EN)2022.pdf

Page/ section reference

Relevant standard
ISO14064-1

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
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Waste generated in operations
Scope 3: Investments

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
ISO 14064溫室氣體查驗報告書(EN)2022.pdf

Page/section reference

Relevant standard
IS)14064-1

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?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE3000	Page 4. 8. Total energy consumption, percentage of purchased electricity, and usage rates of renewable energy Grape King Bio ESG Report_Independent Auditors' Limited Assurance Report.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, but we anticipate being regulated in the next three years

C11.1d

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

The strategy is to monitor the regulation changes especially in Taiwan and China. Grape King Bio will seek to reduce its own emissions before obtaining credits from third parties.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, but we 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, other partners in the value chain

C12.1d

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

We joined related associations, and our chairman serves as a director of the Taiwan Center for Corporate Sustainability and attends quarterly director meetings. We also work with other enterprises to mitigate climate change issues through our efforts, actions, and contributions.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
Yes

Attach commitment or position statement(s)
Committed to Science Based Targets Initiative (SBTi)

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
In order to ensure compliance with the company's climate change strategy, the climate change participation activities can only be implemented after the proposal is confirmed by the ESG Committee.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual
Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding
Taiwan Center for Corporate sustainability invites industries to cooperate on corporate social responsibility and sustainable development.
Mission is:
• Introduce international sustainability and create the vision of sustainable development of enterprises
• Encourage sustainable innovation
• Adapt to climate change
• Commitment to social impact

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)
280000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
CCS shares international sustainability trend research and industry feedback, and communicates with the government, which could influence policy, law, or regulation that may impact the climate. Our chairman serves as a director of the Taiwan Center for Corporate Sustainability and attends quarterly director meetings. We also work with other enterprises to mitigate climate change issues through our efforts, actions, and contributions.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
No, we have not evaluated

C12.4

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

Publication
In voluntary sustainability report

Status
Complete

Attach the document
20230616_ESG Report_eng_compressed.pdf

Page/Section reference

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures

Comment

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	RE100 Science Based Targets Network (SBTN) Task Force on Climate-related Financial Disclosures (TCFD)	RE100- Grape King Bio joined the international RE100 renewable energy initiative in 2019 and committed to the first stage of 15% usage of renewable energy by 2030 and the second stage of 100% usage of renewable energy by 2035. TCFD- In 2021, First health care enterprise in Taiwan to become TCFD Supporter SBTi- In 2023, Committed to Science Based Targets Initiative(SBTi)

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, but we plan to have both within the next two years	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Group Sustainability Officer	Chief Sustainability Officer (CSO)

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below
I have read and accept the applicable Terms