



Japfa Ltd

Climate-related Disclosure in SR2022

31 March 2023



SGX mandates climate disclosures

On 15 Dec 2021, SGX announced that it will require listcos to provide climate-related reporting based on the recommendations of the Task Force on Climate-related Financial Disclosure (“TCFD”)

All issuers must provide climate reporting on a “comply or explain” basis in their sustainability reports from FY2022 (this year’s Sustainability Report) and will be made mandatory for issuers in certain industries, including agriculture (Japfa falls into this category) from FY2023 (next year’s Sustainability Report).



In Japfa, we have chosen to start our climate reporting this year.

Poultry is the main protein that Japfa produces.

Poultry is a low carbon emitter, especially in terms of Scope 1 emissions. In our LCA for poultry, GHG was not even identified as a material environmental hotspot.

It should be noted that approximately 85% of the poultry produced in Indonesia by our commercial fattening farms are sold as live birds to third party wholesalers, who then distribute the live birds to wet markets. As a result, only 15% of poultry we produce is sent to our slaughterhouses and processing plants to be sold as packaged meat and consumer foods.

Although GHG is not a major issue in Japfa, we will do our part in helping reduce global warming and to this end, we have set a Target to reduce GHG emissions from our live-bird production process by 25% in 2030.

Japfa's commitment to climate-related disclosure

Japfa Ltd is willing to adopt the TCFD recommendations on climate-related disclosures.

Cross-Reference

The purpose of this Climate-related Disclosure deck is to provide a cross-reference between the TCFD recommended disclosures and key sections of our Sustainability Report. There is no additional information disclosed in this deck that is not already in our 2022 Sustainability Report.

TCFD Recommendations and Recommended Disclosures

Governance

Disclose the organization's governance around climate-related risks and opportunities.

Recommended Disclosures

- a) Describe the board's oversight of climate-related risks and opportunities.
- b) Describe management's role in assessing and managing climate-related risks and opportunities.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Recommended Disclosures

- a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
- c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

Recommended Disclosures

- a) Describe the organization's processes for identifying and assessing climate-related risks.
- b) Describe the organization's processes for managing climate-related risks.
- c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Recommended Disclosures

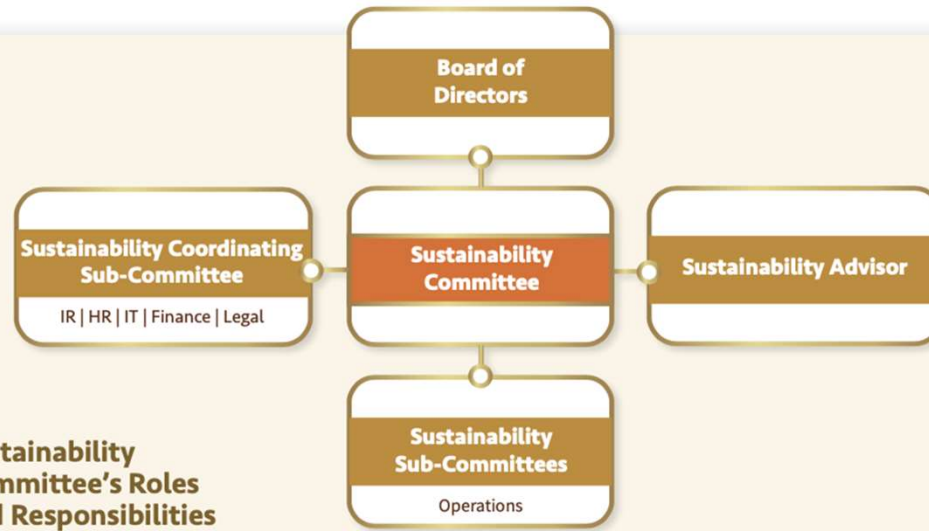
- a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
- c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Governance

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Sustainability Committee's Roles and Responsibilities






Sustainability Champions (TCFD-Gov't, TCFD-Gov't)

Realizing our vision for sustainability will not be possible without our Sustainability Champions. Stemming from different departments, backgrounds and countries, they come together to promote sustainability values at Japfa. The Sustainability Champions, chosen by the Sustainability Committee, are those who display passion to drive sustainability within the Group and can enact change through their roles. Because a significant number of members of the Sub-Committee and Champions hold positions in management, their responsibilities for promoting, managing and monitoring climate-related matters are integrated in their roles. As a result, we have been able to cultivate a top-down approach to instill a sustainability mindset in our employees, in addition to the initiatives they have presented to the higher management levels (TCFD-Gov't).



Sustainability Coordinating Sub-Committee

			
Ethan Ophien Finance & Administration PT Japfa Tbk	Ethan Ophien Finance & Administration PT Japfa Tbk	Ethan Ophien Finance & Administration PT Japfa Tbk	Ethan Ophien Finance & Administration PT Japfa Tbk








Sustainability Sub-Committee

							
Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk	Arifin Finance & Administration PT Japfa Tbk

Sustainability Committee

	
Tan Yung Hwang Chief Executive Officer PT Japfa Tbk	Tan Yung Hwang Chief Executive Officer PT Japfa Tbk

Sustainability Champions Across the Group

						
Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk	Harvest Indragiri Corporate Affairs PT Japfa Tbk

*Members of the Asia Pacific Chapter of the Accounting for Sustainability (A4S) Chief Financial Officers Leadership Network since 2022



Governance

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- b) Describe management's role in assessing and managing climate-related risks and opportunities.

The BOD has oversight of Japfa's sustainability policy, direction and strategy, including climate-related issues. At least once a year, the Sustainability Committee ("SC") will update the BOD on progress of our sustainability goals, initiatives and progress, including our climate-related goals.

The Management Risk Committee ("MRC") reports to the Audit & Risk Committee ("ARC") and is responsible for identifying and assessing enterprise risk, developing risk mitigation plans, and overseeing implementation.

The MRC will conduct a risk assessment process to identify any critical concerns including climate-related risks which can impede Japfa's operations. The results are then presented to the BOD at least once a year.

The Sustainability Committee, comprises the CEO and CFO, was formally established in 2018 to strengthen our commitment and guide the implementation of best practices in sustainability.

The Sustainability Committee facilitates the rollout of sustainability initiatives (in accordance with our sustainability pillars) across the group, documents progress and identifies critical areas for further development.

The Sustainability Committee, together with the Sustainability sub-committees, provides advice and assists BOD in strategic decision-making and long-term planning in relation to sustainability matters.

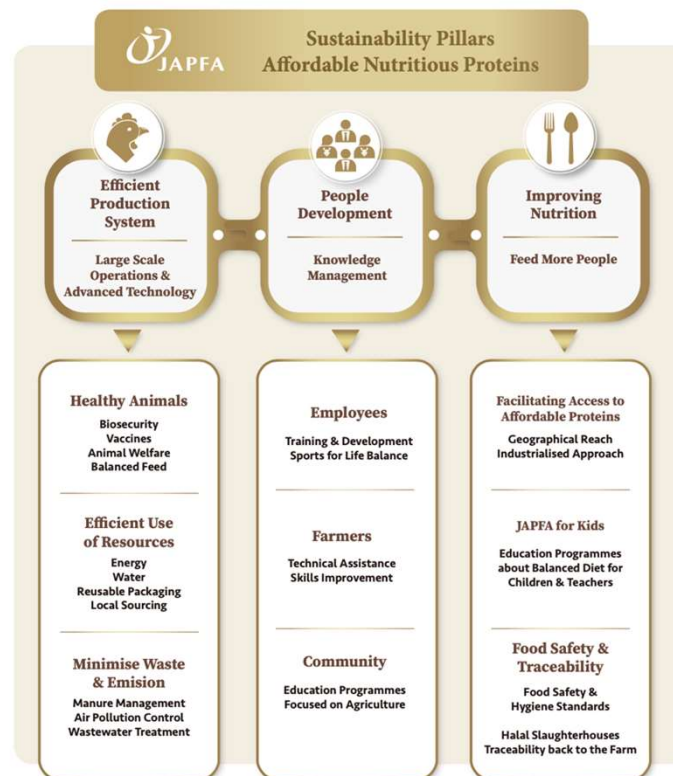
Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Recommended Disclosures

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
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Sustainability Pillars



JAPFA LTD
Life Cycle Assessment Results 2019-2020:
Pilot Study on Poultry Indonesia

Quantifying impact through Life Cycle Assessment (LCA)

Strategy

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Climate change is one of the key considerations in our journey to build a resilient and sustainable business.

Japfa's business is to provide safe, affordable staple protein foods for the people in emerging Asia and the Group is committed to address global challenges such as ensuring food security (one way is to keep our animals healthy) and reducing GHG emission.

Reduction in Scope 1 GHG emission from our poultry live bird production

Although poultry is a low carbon emitter, Japfa is still committed to do our part to reduce global warming.

We have set targets to reduce Scope 1 GHG emissions from our poultry live bird production by: 25% in 2030, 50% by 2040 and to achieve Net Zero by 2050.

Poultry closed-house system

The changing climates in the different markets where we operate pose a challenge. Extreme heat, rain, floods, typhoon occurrences, affect the chickens and may cause unnecessary distress.

Our closed-house system, with temperature and humidity control, helps to address farming challenges in Asia such as heat stress, diseases and predator threats that will endanger the animals and affect operational efficiency. Healthy animals contribute to food safety and food security, while reducing impact on the environment.

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Investment in R&D

Japfa Poultry Research Farm, the biggest in-house poultry research infrastructure in the Asia-Pacific region aims to create high performance, precision feed adapted to reduce commercial poultry cycles and improve Feed Conversion Ratio.

Japfa Aquaculture Research and Development Center collaborates with Kindai University, Japan and Universiti Sabah Malaysia to develop our employees through joint research and practical training.

Improving energy efficiency

We use automation and digitalisation to enable us to better monitor and control our energy consumption.

Automated processes in our operations help to improve efficiency, productivity, product hygiene and cleanliness, as well as reduce materials wastage.

We aim to optimize process efficiency in an effort to minimize energy consumption i.e. produce more with less.

Utilization of renewable energy

We focus on prioritising the use of renewable and cleaner energy in our operations and closely monitor it.

We optimize energy consumption using biomass recycled from agriculture waste such as palm kernels, palm fibre, and candlenut kernels.

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Water & Wastewater management

Water is a crucial resource and plays a vital part in livestock farming. Japfa is committed to water and wastewater management for the good of our animals, local communities and the environment.

We monitor and control wastewater quality to ensure the wastewater discharged meets regulatory standards.

Some initiatives to mitigate water scarcity, minimize pollute and promote water circularity:

- Rainwater harvesting in new facilities to reduce reliance on groundwater and freshwater resources
- Install wastewater treatment plants to remove impurities from wastewater before it is discharged into waterbodies.
- In Indonesia, we commit to build water recycling facilities in 8 of our poultry slaughterhouses and 1 hatchery, which is going beyond regulatory requirements

Food waste reduction

Wastage is minimized with almost every part of the chickens are being utilized. By-products from our poultry production can be recycled and reused as fertilizer, biofuels, and animal feed.

Addressing potential deforestation risk in our supply chain

None of our operations are located on deforested land, but we are conscious of potential deforestation risk in our supply chain. We have initiated a Supplier Survey to raise sustainability awareness with our suppliers.

Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

Recommended Disclosures

- Describe the organization's processes for identifying and assessing climate-related risks.
- Describe the organization's processes for managing climate-related risks.
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Japfa conducts its risk management process in accordance with the Enterprise Risk Management Framework (ERMF) in compliance with the requirement of SGX Code of Corporate Governance 2018, Practice Guidance 9: Risk Management and Internal Controls.

The Purpose of ERMF

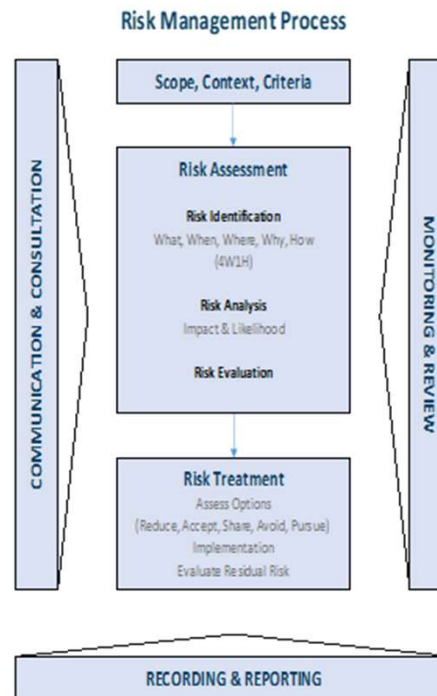
To assist Japfa in integrating a Risk Management Process into business activities and functions.

Principles of Risk Management

- Integrated into business processes and decision-making
- Dynamic
- Systematic, structured and timely
- Accounts for human and cultural factors
- Inclusive
- Facilitates continuous improvement

Risk Appetite

By implementing and replicating an integrated industrialised approach to farming and food production, Japfa has grown consistently with all stakeholders. Japfa will continue to pursue growth opportunities within our risk capacity, including diversification across multiple proteins in Asian emerging markets.



Risk Categories

Individual risks identified within Japfa's operating environment have been allocated into seven categories.



Risk Management

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Japfa manages risks and opportunities that might have an impact on the Group's objectives through an ERM system, including climate-related risks. We are in the process to integrate ERM into the Group's regular course of corporate and business activities.

We apply ISO 31000: 2018 Risk Management Guidelines, which involves the systematic application of policies, procedures, and practices to the activities of communicating and consulting, establishing the context for assessing, treating, monitoring, reviewing, recording, and reporting risk, serve as the foundation for risk management processes.

The MRC assists the ARC to create and implement the Japfa risk management process. The LCA results are shared with top management and business heads through periodic update sessions and dialogues. Together, the teams came up with sustainability initiatives within their own business units whereby they can make improvements to reduce their impact on the environment. The initiatives highlighted in the Strategy section are some examples of the actions taken to address the key hotspots.

The Sustainability Committee will update BOD on our sustainability initiatives and progress, at least once a year.

Risk Management

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We engage an external sustainability consultant, Life Cycle Indonesia, to help us identify key material risks in our operations related to environment and social including climate.

To determine potential physical or transition risks related to a changing climate, Japfa conducted a Life Cycle Assessment (“LCA”) on our Indonesian poultry, our largest protein business in the Group, to better understand the impact on our products on the environment.

Results of the LCA helped identified key environmental hotspots within our operations. From the LCA results, we can further analyse on materiality, impact and focus on key areas where we can make positive contributions.

The LCA results are shared with top management and business to come up with sustainability initiatives within their own business units whereby they can make improvements to reduce their impact on the environment. Examples of the actions taken to address the key hotspots were set out in section 2 Strategy above.

The Sustainability Committee will update BOD on our sustainability initiatives and progress, at least once a year.

QUANTIFYING IMPACT WITH A COMPREHENSIVE LIFE CYCLE ASSESSMENT (LCA)

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

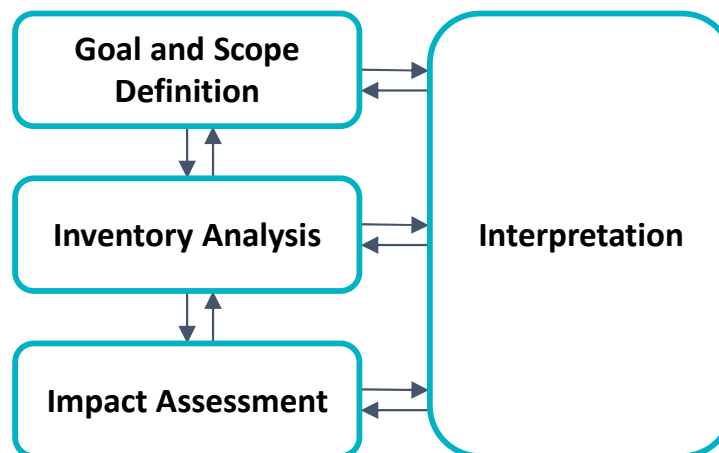
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According to ISO 14040/44:2006:

“Compilation and evaluation of input, output and potential environmental impact of a system product throughout its life cycle”

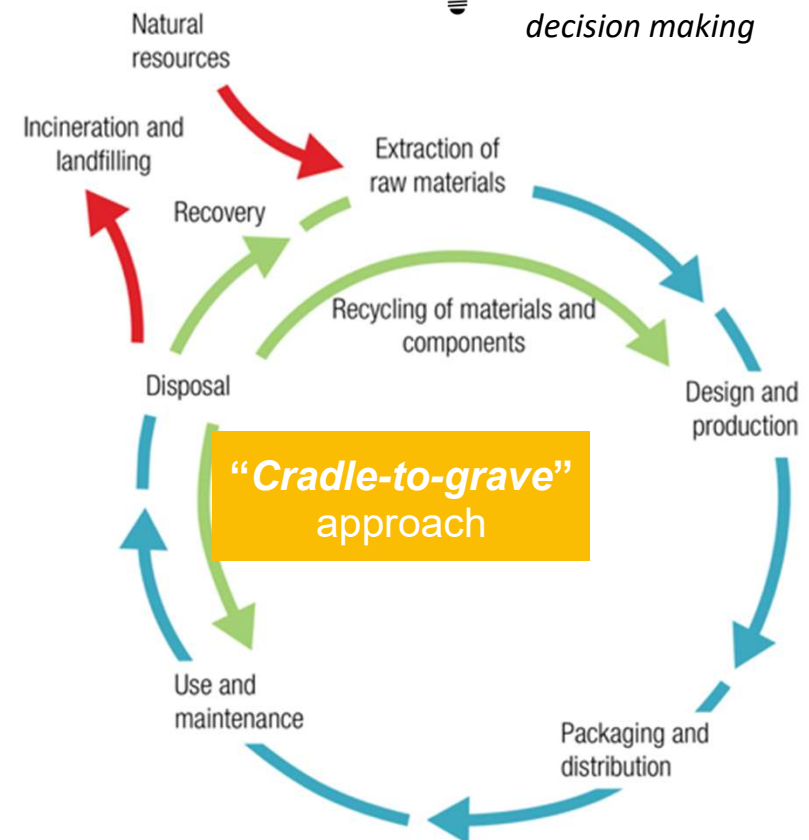
LCA Framework:



Source: ISO 14040:2006



*LCA provides a **science-based** in decision making*



Source: UNEP/SETAC. Life Cycle Management: A Business Guide to Sustainability. Paris, 2007.

LCA is a MULTI-IMPACT CATEGORY ASSESSMENT

Metrics and Targets

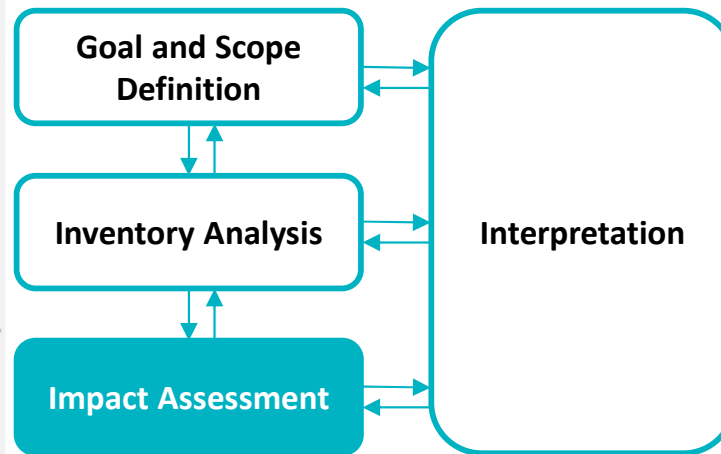
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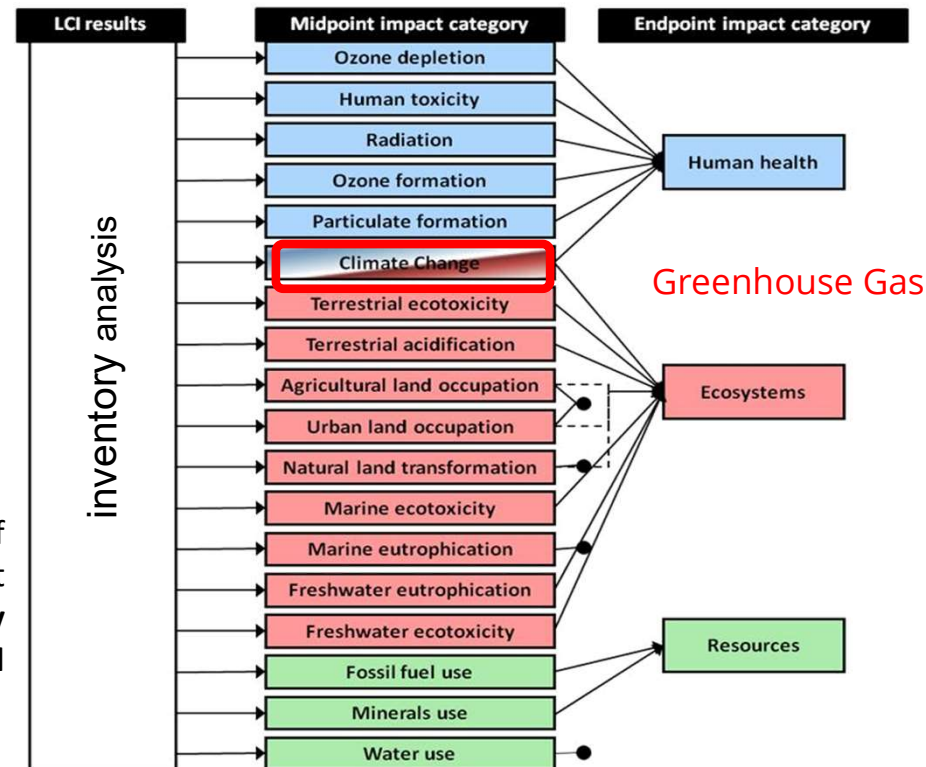
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.



Source: ISO 14040:2006

Life Cycle Assessment avoid shifting of environmental impact by assessing a product system through multiple impact category, **not only focusing on climate change impact or global warming potential** but also many others.

That way we ensure that we focus on what matters the most in our company.



Source: PRe Sustainability

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Basis of our climate-related disclosure

In 2019, we conducted an Environmental Life Cycle Assessment (“LCA”) of our poultry operations, a process that took two years to complete.

As part of the science based LCA, we started the process to collect environmental data since that time. We then established an in-house database specifically for environmental data collected from our operations across Indonesia, and across countries. On the basis of the LCA and data collected:

- we have made climate-related disclosures in past Sustainability Reports,
- we have set both Environmental and Social targets.

We are currently at the stage of improving the systems around the data collection process, to improve the quality of our environmental data. We hope that this will improve the accuracy and reliability of our data, after which the next step would be to implement data analytics over the coming years.

The identification, assessment, and management of climate-related risks and opportunities are fully integrated into our Enterprise Risk Management (“ERM”) and subject to continuous improvement.

We will endeavour to incorporate the impact of climate change into our business strategies over time.

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Greenhouse Gases (GHG) Emissions

[GRI 305-1, 305-2, 305-3] [TCFD-Metrics-b]

	2021	2022
Scope 1 GHG Emissions (Direct)	80,060	75,998
Scope 2 GHG Emissions (Energy Indirect)	454,236	553,827
Scope 3 GHG Emissions (Other Indirect)	10,825,139	16,821,995
Data Source (Number of operational units)	302	291

unit = Ton CO₂ eq

SUSTAINABILITY TARGETS – WHY TARGETS MATTER

As one of the leading agri-food companies listed on SGX and IDX, Japfa has a key role in providing staple food sustainably to millions of people.

We might be a low carbon emitter, but we should do our part.

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Our targets focus on 2 aspects:



ENVIRONMENTAL FOCUS

- Reducing the **scope 1 (direct) GHG emissions on live bird production**
Reducing GHG emissions through efficiency efforts, waste utilisation, and **moving towards cleaner energy sources** would be critical, as fossil fuels has become the main contributors to climate change (75% of global GHG emissions).
- Mitigating the risk of climate change through **closed-house system**
Closed-house system helps mitigate the effect of climate change to poultry health, ensure optimal poultry performance, and control the emission of GHG from livestock waste.

SOCIAL FOCUS



Improving the capacity of the people

to improve good agricultural and sustainable practices.

- Employees:** Training is important to **disseminate the sustainability ambitions, ensure competence and awareness.** Eventually, it will lead to support **decision making process based on the aspects of sustainability**
- Farmers:** Japfa works together with > 10,000 farmer partners/contract grower farmers (CGF) who face challenges **related to knowledge/skills and limited access to markets and services.** Through Social LCA we have identified our social impacts and important aspects for better productivity and livelihood.

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SUSTAINABILITY TARGETS

2030

25% reduction

Scope 1 GHG emission for poultry live bird production
kg CO₂e per kg live bird

100% new closed-house

Mitigating climate change
for company-managed poultry farms

16

Training hours received by employees
Average training hours per employee per annum

25% increase

Training hours received by the contract farmers who request for technical support
Average hours per contract farmer per annum

2040

50% reduction

Scope 1 GHG emission for poultry live bird production
kg CO₂e per kg live bird

ZERO COAL

Scope 1 GHG emissions
throughout the Japfa Group

24

Training hours received by employees
Average training hours per employee per annum

2050

NET ZERO

Scope 1 GHG emission
for poultry live bird production
0 kg CO₂e per kg live bird

ENVIRONMENTAL

SOCIAL

Environmental targets are derived from quantitative science-based Life Cycle Assessment results.