

FINAL REPORT

July 2021

Social Life Cycle Impact Assessment of Poultry Production in Indonesia

Prepared for
Social Life Cycle Assessment
Road Testing Project



Social Life Cycle Impact Assessment of Poultry Production in Indonesia

Prepared for

Social Life Cycle Assessment Road Testing Project

Hosted by Life Cycle Initiative (Hosted by UN Environment Programme) and Social Alliance

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Executive Summary

Social Life Cycle Impact Assessment of Poultry Production in Indonesia

Japfa partners with **over 10,000** local poultry contract farmers throughout the years

PT Japfa Comfeed Indonesia Tbk (a subsidiary of Japfa Ltd) partners with over 10,000 local poultry farmers in Indonesia to produce commercial broilers (live birds) through a partnership programme that provides a substantial socioeconomic contribution to these contract farmers.

Following the revised United Nations Environment Programme (UNEP) social life cycle assessment guidelines released in end of 2020, Japfa participated as a road tester during the revision of the guidelines and took the opportunity to measure and assess the social contribution of its partnership programme.

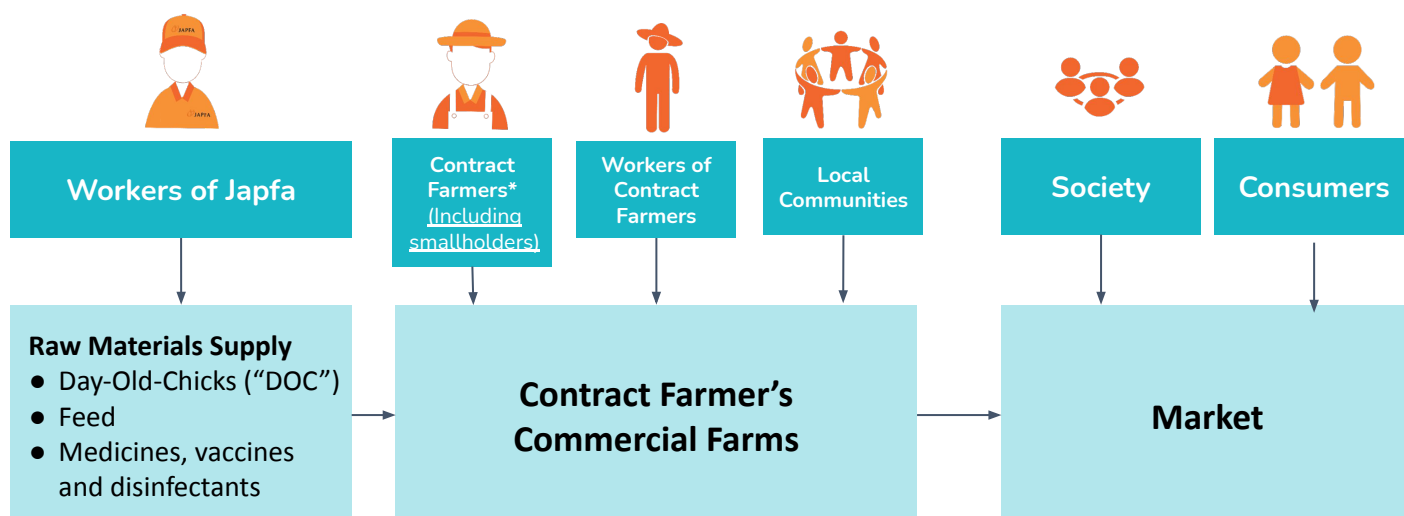
Goals

To identify the potential positive and negative social impact of Japfa's products

To provide information on the socio-economic aspects of Japfa's products as a basis for decision-making to improve the performance of Japfa and the well-being of their stakeholders

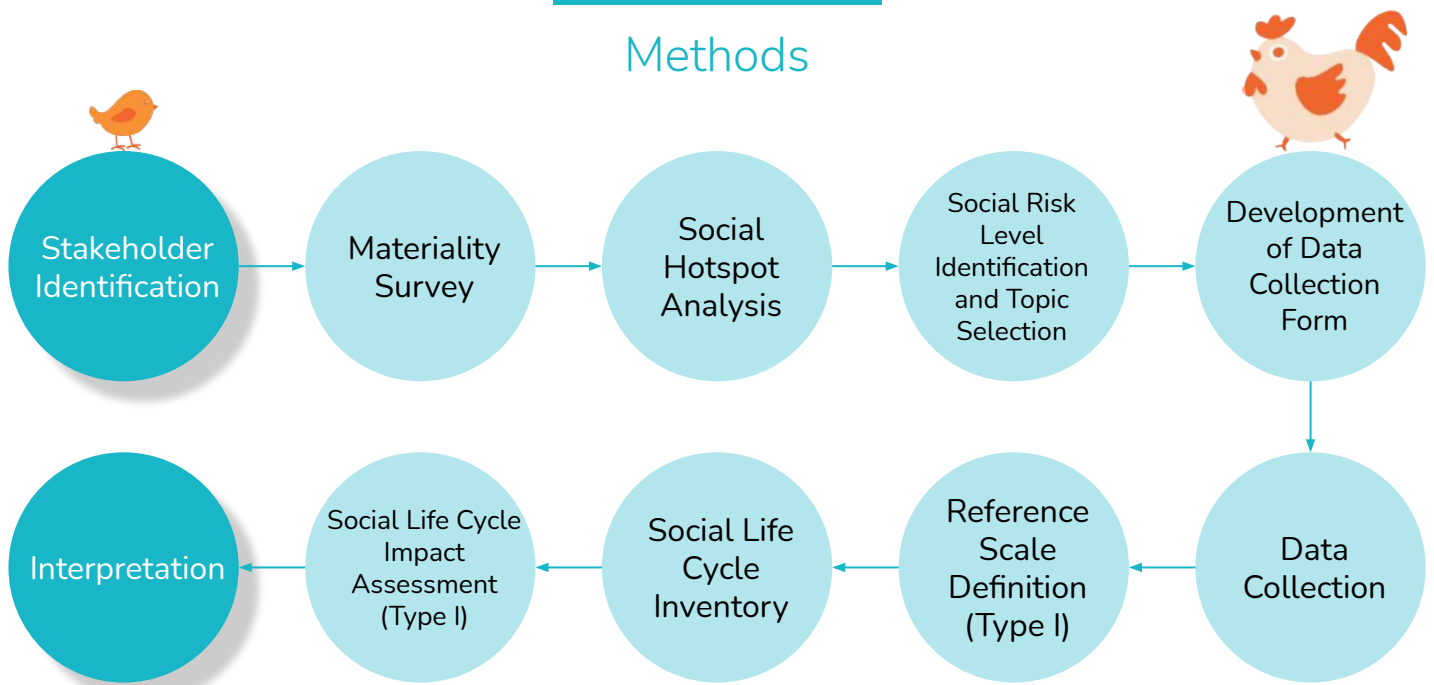
To use the information gained in the pilot study as a basis for communicating Japfa's sustainability effort to their stakeholders

Scope



* The contract farmer is a value chain actor and categorised into the value chain actor stakeholder. The small contract farmers are classified into subcategory smallholder under the worker stakeholder category. The impact subcategory for the smallholders follows the value chain actor stakeholder category.

Methods



6 Stakeholder Categories | **348** Respondents

5 Islands, **18** Provinces

19 Impact Subcategories | **69** Inventory Indicators

Results



Contract Farmers	Value Chain Actors	Smallholders
Wealth distribution	0	0
Suppliers relationship	+1	+1
Feedback mechanism	0	+1
Meeting basic needs*	0	0
Fair competition	+1	+1

Inventory data were primarily collected through interviews and surveys. Secondary data used to construct the reference scale for impact assessment are mostly sourced from relevant national regulations, scientific journals, industry standards or international standards.



Workers of	Japfa	Contract Farmers
Fair salary	+1	0
Social benefit/social security	+1	+1
Working Hours	0	-1
Health and safety	0	-1
Child labour	0	-1
Meeting basic needs*	+1	0
Equal opportunities/discrimination	0	0



Local Communities	
Community engagement	0
Local employment	+1
Delocalization and migration	0
Safe and healthy living Conditions	0
Society	
Ethical treatment of animals at Contract Farms	0
Consumer	
Health and safety	+1

Reference Scale Definition (UNEP, 2020)

-2	-1	0	+1	+2
Starkly below compliance level	Slightly below compliance level	Compliance with local and international laws and/or basic societal expectations	Beyond compliance	Ideal performance. Best in class

* The meeting basic needs subcategory under contract farmers and workers are not defined in the UNEP Social LCA Guidelines. However, it is added in this study, following the Product Social Impact Assessment Handbook (PSIA), with a background that we often question whether the work conducted by the farmers or workers enables them to meet their basic needs.

Conclusion and Recommendation

 Positive	 Contract Farmers  Workers of Japfa  Local Community  Consumers
 Relatively Positive	 Society
 Room for Improvement	 Workers of Contract Farmers

- ❖ Japfa has relatively contributed positive impact to the stakeholders that they have direct control, e.g. Contract farmers, Japfa's workers, surrounding local community and consumers. They have established good relationships with their contract farmers and implemented fair competition.
- ❖ Ethical treatment of animal is correlated with farmers' performance and its practice at contract farmers can still be improved, although already in compliance. Japfa through its technical assistance programme strive to provide knowledge to the farmers on this aspect.
- ❖ Overall performance of smallholders are similar to other types of contract farmers.
- ❖ Recommendation for Japfa to enhance the social performance:
 - Continue best practice implementation to all contract farmers and enforce best practices implementation to contract farmers who are below average
 - Guide and encourage contract farmers to improve their operation and relationship with their workers and the surrounding local community
 - Focus on helping contract farmers to improve aspects that are below compliance, such as by ensuring the implementation of a proper health and safety practices at the farms for workers of contract farmers

Feedbacks on Guidelines

Goal and Scope	<ul style="list-style-type: none">• Social aspect differ between geographical and cultural boundaries. The goal of the study shall define the geographical level (local or global) of the study• Standardise the involvement of stakeholders											
Inventory	<ul style="list-style-type: none">• Provide a data collection template• Provide examples of detailed questions and how these questions relate to the inventory indicator• Detail the inventory to provide ease in data collection											
Impact Assessment	<ul style="list-style-type: none">• Provide a recommendation of references with a hierarchy system to guide our prioritisation in looking for references• Define the the scope of the reference scale, e.g. global, regional, local scale.• Standardise the reference scale definition for a certain impact subcategories that can be applied globally, e.g. working hours, fair salary etc.• Consider effective working hours as an inventory indicator, by associating workload with working hours• Minimum regional wage can not be set as an indicator in the reference scale (as indicated in the methodological sheet)											
	<table><tr><td>Smallholders</td><td colspan="2">Consider the following impact subcategories to be assessed:</td></tr><tr><td>Wealth Distribution</td><td>Fair Competition</td><td>Health and Safety</td></tr><tr><td>Supplier Relationship</td><td>Meeting Basic Needs</td><td>Child labour</td></tr><tr><td>Feedback Mechanism</td><td>Working Hours</td><td>Ethical treatments of animal</td></tr></table>	Smallholders	Consider the following impact subcategories to be assessed:		Wealth Distribution	Fair Competition	Health and Safety	Supplier Relationship	Meeting Basic Needs	Child labour	Feedback Mechanism	Working Hours
Smallholders	Consider the following impact subcategories to be assessed:											
Wealth Distribution	Fair Competition	Health and Safety										
Supplier Relationship	Meeting Basic Needs	Child labour										
Feedback Mechanism	Working Hours	Ethical treatments of animal										
Interpretation	<ul style="list-style-type: none">• Determine the guidance or example on how detailed or concise the interpretation should be to improve the readability											

Social Life Cycle Impact Assessment of Poultry Production in Indonesia

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1) Life Cycle Indonesia, 2) Institute of Sustainability in Civil Engineering, RWTH Aachen University; 3) PT Japfa Comfeed Indonesia Tbk, 4) Japfa Ltd

PT Japfa Comfeed Indonesia Tbk (a subsidiary of Japfa Ltd) has partnered with over 10,000 local poultry farmers in Indonesia to produce commercial broiler (live birds) through a partnership programme that provides a substantial socioeconomic contribution to contract farmers. Japfa participated as one of the road testers for the revised guidelines of Social Life Cycle Assessment (UNEP), representing the first application in the poultry sector in Southeast Asia. The study aims to identify the potential social impacts of the farmer partnership programme. The system boundary is “cradle-to-gate”, starting from the production of farming supplies (e.g. feed, Day-Old-Chicks) to the farm gate (broiler live birds). The stakeholders assessed in this study are contract farmers as value chain actors (medium and large farmers), smallholder contract farmers, workers (Japfa workers and contract farmer’s workers), local community of contract farmers, society and consumers. Inventory data were primarily collected through interviews and surveys. Secondary data used to construct the reference scale for impact assessment are mostly sourced from relevant national regulations or practice standards. In total, 19 impact subcategories and 69 inventory indicators were assessed. The results show the social performance is relatively in compliance and progress towards beyond compliance on contract farmers, smallholders, Japfa’s workers, local community, society and consumers. For workers of contract farmers, there were areas for improvement in the category of working hours as well as health and safety. At the moment, the Company has no influence on how the contract farmers treat their workers. These results suggest that the social performance is satisfactory when there is a Company’s intervention. In the future, the Company may indirectly influence these contract farmers to improve their social footprints on their workers. A further study is recommended to work specifically on the hotspot impacts as it is presumed there are other influencing factors to be taken into account for more accurate results.

Keyword: *Social Life Cycle Assessment, Commercial Broiler Poultry, Farmer Livelihood*

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1. Introduction

1.1 Context

Japfa is a leading, pan-Asian, industrial agri-food company dedicated to feeding emerging Asia with essential proteins for 50 years. Headquartered in Singapore, the Company employs over 40,000 people across an integrated network of modern farming, processing and distribution facilities in Indonesia, China, Vietnam, India and Myanmar. Japfa specialises in producing quality protein staples (poultry, beef, swine & aquaculture), dairy, and packaged food that nourish millions of people.

In our commercial farming business we operate our company-owned commercial farms and also works with contract farmers under a profit-sharing programme. The terminology used and arrangement of the programme in each country may differ. We use “contract farmers” as the generic term to address our partner farmers. In Indonesia, contract farmers refer to farmers under the partnership arrangement (*Kemitraan*) with Japfa. The Group’s contribution to the community and society has been implemented through the poultry commercial farm partnership programme in Indonesia operated by PT Japfa Comfeed Indonesia Tbk (“PT Japfa Tbk”). Over 10,000 local contract farmers have been working alongside Japfa throughout the years to produce live birds. The partnership has empowered and improved the productivity and capacity of local contract farmers and communities, where the Company shares values and lives up to its vision of “Growing Toward Mutual Prosperity”.

However, the social contribution of this partnership has never been measured. Thus, following the revision of UNEP's social life cycle assessment guidelines, Japfa joined the road testing project and took the opportunity to measure and assess the social contribution of its partnership programme.

1.2 Project Leaders

The project is conducted by a sustainability committee of Japfa Group, below are the project leaders and members:

1. Project Leaders

1. Kevin Monteiro - Japfa Ltd
2. Erwin Djohan - PT Japfa Tbk
3. Jessica Hanafi, PhD - Life Cycle Indonesia

2. Members

1. Slamet Widodo - PT Japfa Tbk
2. Singgih Hujianto - PT Japfa Tbk
3. Elvina Apandi Hermansyah - PT Japfa Tbk
4. Christina Kucita - PT Japfa Tbk
5. David Adiwijaya - Life Cycle Indonesia
6. Sarah Saputra - Life Cycle Indonesia
7. Khalda Ardelia Yunus - Life Cycle Indonesia
8. Marcellina - Life Cycle Indonesia

Japfa conducted this project as a road tester for the revised Social LCA Guidelines by UNEP/SETAC Life Cycle Initiative in collaboration with Social Life Cycle Alliance [32]. Social LCA is largely following the framework of Environmental LCA, where it consists of four phases: the goal and scope definition, life cycle inventory, life cycle impact assessment, and interpretation, done iteratively. The Japfa Group fully funded the project.

Details and questions regarding this project can be submitted to Jessica Hanafi at email jessica.hanafi@lifecycleindonesia.com.

1.3 Project Timeline for Road Testing

The pilot project road testers were announced later in September 2019. In Japfa, the Goal and Scope phase was started in early February 2020. This phase included a reviewing process of the V3 Draft of the UNEP's SLCA guidelines, surveying on materiality and defining goal and scope. Following the UNEP's timeline, the pilot testing was scheduled until mid-May 2021. The project timeline is briefly shown in Table 1.

Table 1. Japfa's Timeline on UNEP'S S-LCA Road Testing Project

Activity	2020												2021				
	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Goal and Scope																	
Social Hotspot Database																	
Social Life Cycle Inventory (LCI)																	
Social Life Cycle Impact Assessment (LCIA)*																	

* Including final report submission approximately in May 2021

In early 2020, the CoVid-19 pandemic disrupted many activities, and until this report is published, we are still in a state of a pandemic. The pandemic caused several delays in our projects and forced us to reformulate our strategies on how to conduct the project:

- Initial engagement to define the goal and scope was delayed because the operational team at Japfa were occupied handling urgent matters in their operation
- Engagements with the operation management were changed to an online platform as direct engagement was not possible
- Initially, we planned to directly visit the stakeholders to collect primary data through an interview. Movement restrictions by the government prevented us from conducting direct engagement and some adjustments were done to facilitate the data collection.
- Interview questionnaires were modified to facilitate the shift from direct to online interviews
- Some respondents were unable to be contacted through online platforms, which increased the difficulties of having respondents.

All of the challenges that we faced during the data collection phase have delayed the social life cycle inventory phase up to December 2020, beyond the expected timeline. More details about our data collection procedures are provided in Section 3 (Social Life Cycle Inventory).

2. Goal and Scope

2.1 Goal

The goal of this study is:

1. To identify the potential positive and negative social impact of Japfa's products
2. To provide information on the socio-economic aspects of our products as a basis for decision-making to improve the performance of our Company and the well-being of our stakeholders
3. To use the information gained in the pilot study as a basis for communicating our sustainability effort to our stakeholders

The results of this study are intended to be disclosed to both internal and external stakeholders of Japfa who are broken down below:

- **Internal:** Key management team and poultry commercial farm team, especially those responsible for farmer partnership programme
- **External:** Public

2.2 Scope

The study focuses on the contract farmer partnership programme conducted by Japfa's Indonesian subsidiary – PT Japfa Tbk, where its poultry operations contribute approximately 85% of the Company's annual revenue. The partnership programme is part of the poultry supply chain that functions to produce live broiler chicken. The contract farms are spread across the Indonesian archipelago, covering five islands, i.e. Sumatra, Java, Kalimantan, Bali and Sulawesi. The period reference for this study is 2019 to 2020.

The product assessed is a live broiler chicken whose weight varies from 0.8 - 2.8 kg, and its function is to meet people's protein requirements. The functional unit used in this study is to produce 1 kg of live broiler chicken at the contract farmers' farm gate.

The system boundary is "cradle-to-gate", from the production of the feed, day-old-chicks (DOC) production at breeding farms, the commercial farm of Japfa's contract farmers producing the live birds and the supporting business units supplying medicines, vaccines and disinfectants (OVK) for the farm. The main focus of the study is on processes at the commercial farm of Japfa's contract farmers. The function of the product system is to produce live broiler chicken that meets the requirements of the functional unit. In general, the product system consists of processes below:

1. Production of livestock production facilities or Saponak – *Sarana Produksi Peternakan* (including feed, DOC, and OVK)
2. Production of supporting materials
3. Transport of materials from Japfa operational units to farms
4. Transport of materials from third-party suppliers
5. Production of live birds:

- a. Cleaning and disinfecting
- b. Pre-chick-in
- c. Chick-in
- d. Brooding
- e. Growing
- f. Harvesting

2.2.1 System Boundary

The system boundary was chosen based on the study's goals that mainly focus on the partnership activities. The product system and its key stakeholders within the system boundary are shown in Figure 1 below. There are six stakeholders involved in the processes within the system boundary. Each of the life cycle stages within the system boundary has its own relevant stakeholders.

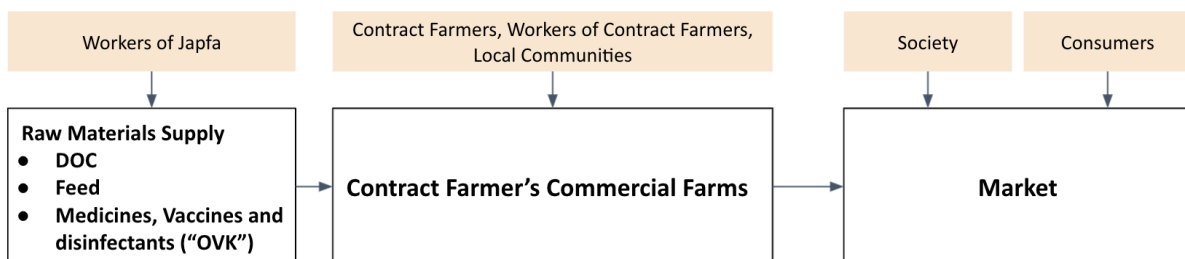


Figure 1. System Boundary

Japfa provided main farming materials such as DOC and feed, which are used in large quantities and have a shorter lifetime. Both are included in the system boundary. These materials are produced in an industrialised system that involves a significant number of workers, hence higher social significance.

Processes involving third-party suppliers and occurring outside the farm gate, such as distribution to the wet market customer, are excluded. It was presumed that stakeholders in these processes are not crucial to achieve the study goal, as they may have minimal contribution to the farming practices. Practical limitations in data collection are also one of the considerations to exclude these processes from the system boundary. Each of our contract farmers across Indonesia has varied third-party suppliers whose social practice is currently still far beyond the Company's control. The supporting materials such as materials for the chicken houses or equipment are usually from local third-party suppliers and are in smaller amounts and used for an extended period of time. Thus, in regards to the social significance, these processes may have less potential for social concern and are considered cut-off.

2.3 Methodology

The step-by-step method in this study consists of ten stages, starting from identifying stakeholders within the system boundary to interpretation. Figure 2 below shows all the stages.

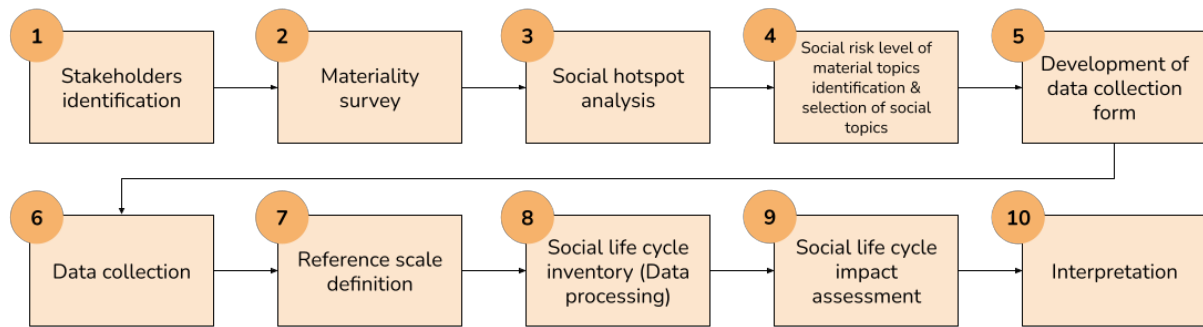


Figure 2. Study Methodology

In the beginning, we identified stakeholders within our system boundary. Then, material topics related to the stakeholders were identified through a materiality survey conducted internally with the Company's commercial farming division, Japfa management and other divisions, along with Life Cycle Indonesia as the Company's sustainability consultant. After the materiality assessment, a social hotspot analysis was conducted to identify the social risks relevant to our system boundary. The hotspot analysis was done through social risk analysis and the social hotspot database.

The materiality assessment resulted in a list of material topics relevant to the stakeholders assessed in this study. To select the top material topics, the social risk level of each topic was identified. Once the material topics were set, a data collection form was developed for data gathering.

The data collection was conducted using an online form and phone interviews. In this study, the Reference Scale approach is used for the impact assessment. Thus, there was a step for defining the reference scale. Next, data collected were processed and scored for the impact assessment following the reference scale defined. The impact assessment results were then further analysed for interpretation.

2.4 Stakeholder Categorisation and Involvement

Stakeholder groups that were initially pre-identified within the system boundary are:

- contract farmers (value chain actors)
- workers
- local communities
- society
- consumers; and
- children as consumers.

In this study, the contract farmer is a value chain actor and categorised into the value chain actor stakeholder. The contract farmers are practically Japfa's poultry supply chain suppliers who work together with the Company under a partnership programme, in which the implementation is regulated by the Government [39]. Children as consumers were excluded from the study because of its distant link to the product. Chicken as a protein source is important for growth. However, the linkage from the live bird produced at the contract farmers and the consumption by children cannot be correlated directly. Nevertheless, Japfa has a continuous program for children, Japfa for Kids,

which aims to build awareness on a balanced diet and healthy living behavior to school children in rural areas.

Smallholder family farms have captured the world's attention recently. A separate analysis was conducted specific for smallholders to capture social impact associated with smallholders. This analysis will provide an input to the revised Social LCA guidelines. The contract farmers assessed in this project are grouped into three categories according to their size, i.e. small, medium and large. Details about the grouping are explained in Section 4. To assess the smallholders, the small size contract farmers are classified into subcategory smallholder under the worker stakeholder category meanwhile, the medium and large contract farmers are under Value Chain Actors stakeholder group. Since there is no indicator or subcategory developed for the smallholders, the same impact subcategories for value chain actor are used for the smallholders, as shown in Table 2

A materiality assessment was conducted to identify the relevant impact subcategories for each stakeholder. Relevant subcategories were selected and assessed for its materiality through a survey to more than 40 internal and external respondents. Impact subcategories included in the study are shown in Table 2 below. The level of social risk was determined using three approaches explained in Section 3 of Social Hotspot Analysis.

Table 2. Impact categories selected based on materiality assessment

Stakeholders	Description	Impact Subcategory
Contract Farmers	Poultry farmers who work together with Japfa under a partnership arrangement	Wealth distribution
		Supplier relationships
		Feedback mechanism
		Meeting basic needs
		Fair competition
Workers of Japfa	Individuals working at Japfa owned operational units i.e. feedmills, parent stock breeding farms, animal vaccine and medicines manufacturing facilities	Fair salary
		Social benefits/social security
		Working hours
		Health & safety
		Smallholders <ul style="list-style-type: none"> • Wealth distribution • Suppliers relationships • Feedback mechanism • Meeting basic needs • Fair competition
Workers of Contract Farmers	Individuals working at Japfa's contract farmers' commercial poultry farms ¹ , usually in larger farms	Meeting basic needs
		Child labour
		Equal Opportunities/Discrimination
Local	People living near to contract farmers'	Community engagement

¹ In practice, there are contract farmers who do not have workers, particularly small-scale contract farmers. They usually handle the farming practice themselves or with the family.

Stakeholders	Description	Impact Subcategory
Communities	farms	Local employment
		Delocalisation and migration
		Safe and healthy living conditions
Society	Group of individuals	Ethical treatment of animals
Consumers	Potential consumers of Japfa products	Health & safety

The meeting basic needs subcategory under contract farmers and workers are not defined in the UNEP Social LCA Guidelines. We often question whether the work conducted by the farmers enables them to meet their basic needs. Meeting basic needs is defined by the Product Social Impact Assessment handbook [30] as “the extent to which the basic needs of small-scale entrepreneurs are met and the extent to which a contribution is made towards improving the status quo”. Assessing Meeting Basic Needs would provide insight into stakeholders’ livelihood conditions and how the Company can contribute in improving their lives at least to meet the essentials necessities, such as food, sanitation facilities and water access. In the handbook, the topic is set as a social topic under the small-scale entrepreneurs, which in this study is similar to the contract farmers. We also considered the importance of assessing this subcategory for the worker stakeholder. Therefore, we refer to the Product Social Impact Assessment handbook to assess this subcategory for contract farmers and workers, as an addition to the Social LCA Guidelines.

3. Social Hotspot Analysis

A social hotspot identification was conducted to identify the risk of relevant social issues in the operational areas of contract farmers. The social hotspot analysis was done using three approaches, i.e. literature review and media coverage, focus group discussion and Social Hotspot Database (SHDB).

3.1 Literature and Media Review

Social issues were identified from public articles emerging from 2018 until July 2020. The search criteria were location and agricultural sector – not limited to poultry. There were 118 articles collected:

- BPS (Central Statistical Bureau) - 20 articles
- reputable National media (e.g. Kompas, Detik) - 42 articles
- Local media - 52 articles
- Non-profit media - 3 articles
- journal publication - 1 article

Table 3 below shows the social issues identified, classified into three categories, high, medium and low risk. The issues identified were mapped to the material topics, and those that are frequently mentioned (> 5) are considered as high risk, while less frequent (4 - 5) is medium, and very less (< 4) is low. Based on this approach, poverty and community health are the most high-risk issues within the system studied. Details of risk level and social issues identified are shown in Table 3 below.

Table 3. Social risks identification based on literature review

Risk Level	Social Issues	
High	<ul style="list-style-type: none"> • Poverty • Community health 	
Medium	<ul style="list-style-type: none"> • Environmental pollution • Child abuse • Abandon Child • Flood • Hunger 	<ul style="list-style-type: none"> • Labour • Community engagement • Sanitation • Social gap • Stunting
Low	<ul style="list-style-type: none"> • Agrarian conflict • Beggar • Child labour • Water access • Criminal • Deficit of farmer exchange rate • Disability • Early-age marriage • Education • Extortion to certain industry • Food security • Illegal farmer • Inequality of wealth 	<ul style="list-style-type: none"> • Low Indonesian democracy index • Low level vaccination to children • Low school attendance • Maternity and infant mortality • Migrant worker • Moral issue • Prostitution • Punk kid • Radicalism • Religion conflict • Sexual abuse • Terrorism • Traffic jam

Risk Level	Social Issues	
	<ul style="list-style-type: none"> ● Intolerances ● Land conflict ● Land use change ● Landslide ● Low happiness rate ● Low income per capita 	<ul style="list-style-type: none"> ● Transmigrant ● Unemployment ● Unregistered Marriage ● Unwanted baby ● Waste ● Waste from chicken farm

Note: Social issues with grey fonts have low relevance.

3.2 Social Hotspot Database (SHDB)

Social hotspot identification was done using the Social Hotspot Database (SHDB) [31]. In the SHDB, Japfa is classified as an animal product sector. The SHDB provides a country-wide-average of sector practice in Indonesia and not specific to the poultry industry. Table 4 shows the results from the database. In general, the issues are mostly related to workers and the community.

Table 4. Social risks identification based on Social Hotspot Database

Categories	Subcategories	Risk Level
Labour Rights and Decent Work	Freedom of Association, Collective Bargaining, and Right to Strike	Very High
	Wage Assessment	High
	Poverty	High
	Child Labour	High
	Excessive Working Time	High
	Forced Labour	Medium
Health and Safety	Occupational Toxics and Hazards	High
Human Rights	Indigenous Rights	High
	Gender Equity	High
	High Conflict Zones	High
	Human Health Issues - Non-communicable Diseases and other health risks	High
	Human Health Issues - Communicable Diseases	High
Governance	Legal System	Very High
	Corruption	High
Community	Access to Improved Drinking Water	High

According to the database, the animal production sector in Indonesia has a very high risk of Freedom of Association, Collective Bargaining, and Right to Strike (Labour Rights and Decent Work category), and Legal System (Governance category). Regarding the Japfa partnership program, the issues related to labour are not relevant because the number of workers in the farms is less than the amount required by the regulation to establish collective bargaining. Therefore, issues regarding

Labour relations are not included in this study. At national level there are discussions regarding farmers corporations that might be relevant to this topic, however it is not yet materialized.

Legal system and governance are integrated into the impact subcategories across the stakeholder groups. This is indicated as compliance level for the reference scale in the impact assessment. On the high risk level, there are 12 subcategories or social issues identified based on the SHDB. The followings explain the background for these social hotspots in Indonesia:

1. Wage assessment: There is a high-risk that the sector average wage is below sweat-free wage, although the risk on average wage under living and minimum country wage is low. According to the BPS and Ministry of Manpower Republic Indonesia [1], the average minimum country wage is higher than the minimum living expense set by the government. Wage issue is still addressed by labourers at all times. This issue is closely related to poverty and excessive working time that improper practice will lead to unfair salary.
2. Child labour: Child labour is a high risk in the agricultural sector in Indonesia, particularly in rural areas, where children are often found helping their parents, and in some cases, children under school age stop attending school. Child labour is specifically prohibited in Japfa owned operations. In Japfa's working requirements, workers are required to be at least 18 years old [41]. However, in the contract farmer partnership agreements, Japfa does not set worker requirements for the contract farmers.
3. Health and safety have a high risk where workers might be exposed to noise and respiratory disorders, i.e. mesothelioma and asthma. In poultry operations, this is possible, for example, in feed production, which releases dust from raw materials being processed or in farms where rice husks are used.
4. Human rights: Many human rights issues in the agricultural sector are related to land use. The mass production of animals requires a generous amount of land. A proper engagement with community and legality is very important to ensure land use and occupation do not harm human rights, including indigenous and minority groups. Furthermore, community engagement should consider the potential impacts of the production process on the community's living conditions. Mass production of animals without good farming practice is often identified with negative impacts on the environment, such as bad air quality and water pollution that could impact the community's health and safety.

3.3 Focus Group Discussion

A focus group discussion was conducted with PT Japfa Tbk's subsidiary, PT Ciomas Adisatwa, which is responsible for the farmer partnership programme. The discussion aimed to explore any social issues related to partnership activities. The result shows an alignment with the literature review where community health is a high risk, while community engagement is considered a medium risk. Other topics, including land conflict, child labour and animal welfare, are considerably low.

A common issue in all areas is the criminal element during the chick-in and harvesting processes, where illegal fees are collected from the local unauthorised party.

In certain areas, the social risks of the farming activities may depend on the farmer's social position within the community. In the areas where social stratification is still highly regarded, such as in Bengkulu and Aceh, respectable members of the society would have less or even no issues with the local community. In other areas, social issues are unlikely to happen as long as the contract farmers can maintain good engagement with their local communities. Details of risk level and social issues identified based on the focus group discussion are shown in Table 5 below.

Every area or region has its own social and cultural characteristics that are specific to the area. The same set of guidance may not be applicable to all. This is a finding that makes social aspects unique and may be challenging to use the same metrics.

Table 5. Social risks identification based on focus group discussion

Risk Level	Social Issues	
High	<ul style="list-style-type: none"> Community health 	
Medium	<ul style="list-style-type: none"> Community engagement 	
Low	<ul style="list-style-type: none"> Animal welfare Education Financial access Labour Poverty Transmigrant Farming skills Child labour Consumer health and safety Criminal Discrimination Environmental pollution Farm ownership Farmer motivation Generation gap Honesty Illegal farming 	<ul style="list-style-type: none"> Inequality of wealth Job satisfaction and engagement Land conflict Land use change Level of farm owner involvement in farming practice Local employment Meeting basic needs Public figure Stunting Technical support Water access Women empowerment Worker's ownership Workers health and safety Working hours Young farmers

The results from the three approaches are combined to determine the social risks applicable for this study, as shown in Table 6. The highest risk level from each of the approaches were selected as material topics, despite it might not be a high level in other approaches. For example, based on literature review and focus group discussion, child labour is low risk, however, in SHDB is high. Hence, the level of risk for child labour is considered high.

Table 6. Risk Level of impact subcategories assessed in this study

Stakeholders	Impact Subcategory	Risk Level
Contract Farmers	Wealth distribution	High
	Supplier relationships	Low
	Feedback mechanism	Low

Stakeholders	Impact Subcategory	Risk Level
	Meeting basic needs	High
	Fair competition	Low
Workers	Fair salary	High
	Social benefits/social security	Medium
	Working hours	High
	Health & safety	High
	Meeting basic needs	High
	Child labour	High
	Equal opportunities/Discrimination	High
Local Communities	Community engagement	High
	Local employment	High
	Delocalisation and migration	Low
	Safe and healthy living conditions	High
Society	Ethical treatment of animals	Low
Consumers	Health & safety	Low

4. Social Life Cycle Inventory

The social hotspot analysis explained in the previous section identified and prioritised the data (inventory indicators) to be collected for each stakeholder.

Sources of inventory data: primary sources, i.e. interviews and surveys to stakeholders' representatives.

Semi-quantitative data were gathered through a survey. Type of questions in the survey:

- Yes or no
- Likert scale
- Single choice or multiple choices.

Table 7 shows the data quality evaluation of the inventory collected in this study.

Table 7. Data Quality Evaluation

Indicator	Description	Evaluation
Reliability of the source(s)	An assessment of the data sources used	Data is collected from primary sources through interview and online questionnaires. Triangulation of data was performed for several relevant subcategories across two or more stakeholders to increase the reliability of the data
Completeness conformance	Comprehensiveness of the data included to meet the study's goal	Representative selection of site-specific. Consists of company and farmers' site specifics. Company provide feed, DOCS and medicines
Temporal conformance	Data age and minimum range of data collection that should be performed	1. The data from the year 2019 is used as a basis to determine the sampling for the farmer, worker and local community respondents' identification 2. Data collected from the sampled respondents is based on 2020 data
Geographical conformance	The geographic area where process unit data should be collected to achieve the objectives of the study	Data was collected from the geography where Japfa's contract farmers operate, i.e. Sumatra, Java, Kalimantan, Bali and Sulawesi

Data for the impact assessment method was also collected to define the reference scale. Secondary sources were widely used for defining the reference scale, particularly for setting the compliance level. The compliance level is set by following local, national regulations, or international standards. These scales were used for the social impact assessment of the inventory data collected and reflecting the social performance of the activities studied among its stakeholders. The explanation about the reference scales is provided in Section 5.

4.1 Data Collection Procedures

The data collection procedure consists of several steps:

1. Determine sample size
2. Define inventory indicator relevant for each impact subcategory
3. Design questionnaire based on the inventory indicator
4. Review questionnaire with field expert
5. Conduct survey
6. Data processing
7. Analyse inventory result

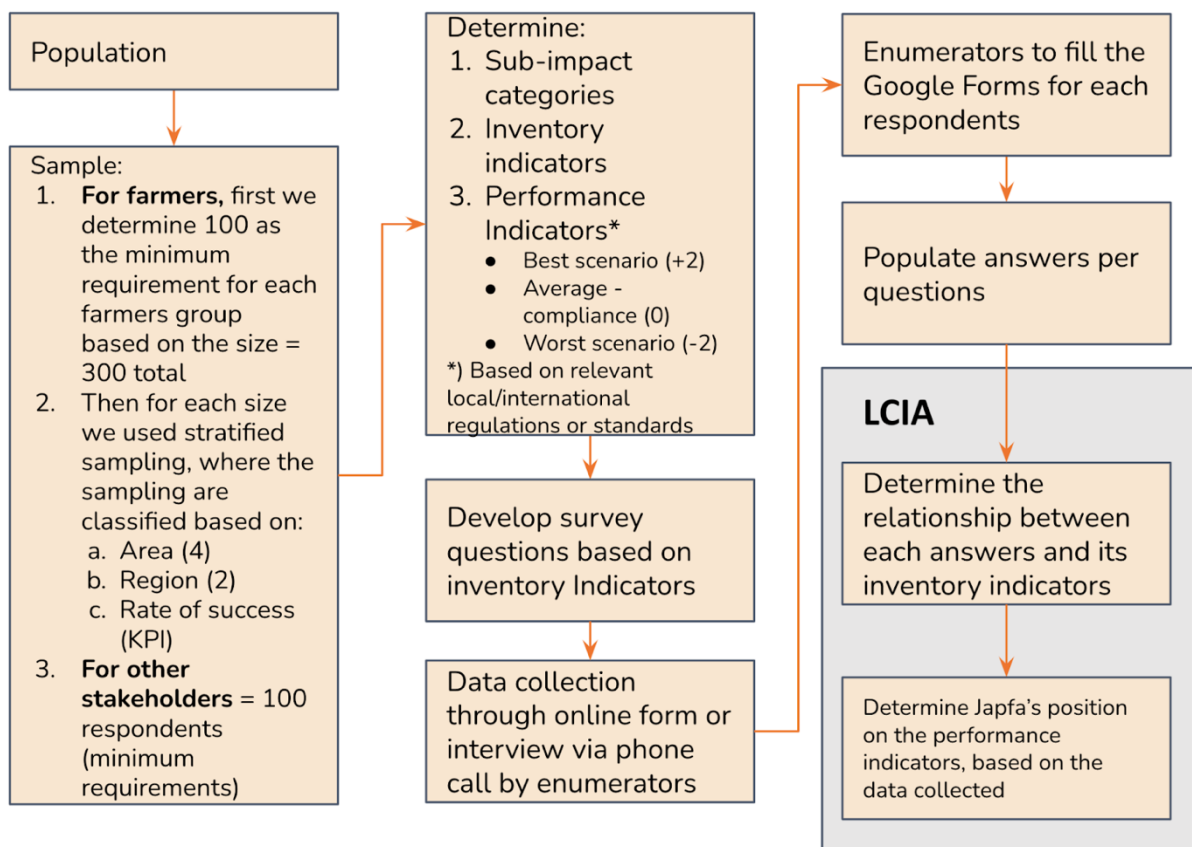


Figure 3. Data collection procedure

4.1.1 Determine Sample Size

Based on the social hotspot analysis, five stakeholder groups were identified, i.e. contract farmers, workers of contract farmers, workers of Japfa, local community and consumers. Information regarding workers of Japfa were gathered based on Japfa's annual financial and sustainability reports. Therefore, it is excluded from the sample size calculation.

Sample sizes were determined for each of the stakeholder groups. A minimum of 100 respondents for each stakeholder were set for the survey. We divided the contract farmers into three groups based on their farm capacities i.e. small (<10,000 chickens), medium (10,000 - 40,000 chickens) and large (>40,000 chickens). Therefore, the total minimum number of respondents of contract farmers

are 300. In addition to workers, local community and consumer, the total target sample size is 600 respondents.

To achieve representativeness, the number of samples for contract farmers and their workers was further broken down based on the areas of operation following the stratified sampling approach. Japfa's farmer partners are distributed in five islands, namely Sumatra, Java, Kalimantan (Borneo), Sulawesi and Bali, covering 18 provinces in Indonesia. Table 8 below shows the detailed classification.

Table 8. Subgroup classification for contract farmers and their workers

Area	Performance	Capacity
Area 1 (Sumatra)	Emerging (Low KPI*)	Small (<10,000 chickens)
Area 2 (Banten, West Java)	Stable (Medium KPI)	Medium (10,000-40,000 chickens)
Area 3 (Central Java, Special Region of Yogyakarta, Kalimantan)	Success (High KPI)	Large (>40,000 chickens)
Area 4 (Bali, Sulawesi, East Java)	-	-

* KPI: Key Performance Index

4.1.2 Define inventory indicator relevant for each impact subcategory

This section will elaborate on the inventory data collected from the primary sources. The primary data was collected on site-specific or company data through questionnaires specifically tailored for each group of stakeholders and formulated with questions based on assessing each impact category. There are four separate questionnaires prepared for:

1. Contract Farmers
2. Workers
3. Local Community
4. Consumer.

Each stakeholder is assigned to different impact subcategories, where each subcategory has one or more inventory indicators. Table 9 to 13 list down the inventory indicators for each subcategory and stakeholder groups. The questions on the subcategory of ethical treatment under stakeholder society was assigned to farmers since farmers are the ones who implement the ethical treatment practice.

Table 9. Inventory indicators for contract farmers

Impact Subcategory	Inventory Indicator
Wealth Distribution	Change of education on farming compared to before join partnership or use services from the Company
	Change of income (increase or decrease) and education compared to before join partnership or use services from the Company
	Presence of clear and transparent procedures in selecting contract farmers
	Presence of mechanism from Japfa in assisting farmer to

Impact Subcategory	Inventory Indicator
	become contract contract farmers
	Presence of procedure and clear information provided by Japfa on index performance and its calculation to contract farmers
	Percentage of contract farmers who know performance calculation and their performance
	Presence of contractual instruments with the contract farmers
	Percentage of contract farmers who own land by themselves
	Presence of unproductive land converted to productive land that can create income for contract farmers
	Presence of Hazard Analysis and Critical Control Points (HACCP) or related certificate owned by contract farmers
Supplier Relationship	Job satisfaction and engagement survey
	Presence of of activities to improve farmer education in services offered or as initiatives
	Presence of and number of visits by PL that is held regularly (e.g. daily, weekly or monthly)
	Presence of and number of technical assistance that is held regularly (e.g. daily, weekly or monthly)
	Presence of and number of visits by veterinarian that is held regularly (e.g. daily, weekly or monthly)
	Presence of of activities to improve farmer education in services offered or as initiatives
	Presence of Implementation by contract farmer of knowledge shared from the counseling events in the farm
	Presence of evaluation on the implementation of new knowledge of farming practice
	Presence of transfer knowledge or sharing session initiated by contract farmer or by Japfa to improve the quality of farm construction and management
Feedback Mechanism	Presence of a mechanism for contract farmers/customers to provide feedback
	Conformity of DOC and OVK delivery according to contract
	List of services and inputs provided by the Company to contract farmers/customers
Fair Competition	Presence of profit sharing contract that secures basic living condition of contract farmers
Meeting Basic Needs	Energy consumed per day
	Percentage of contract farmers/customers who have adequate sanitation facilities
	Percentage of contract farmers/customers who have access to improved water sources

Table 10. Inventory indicators for workers

Impact Subcategory	Inventory Indicator
Fair Salary	Salary paid for employees
	Bonus paid
	Equity of wages among men and women
Social benefits/social security	Social benefits provided to employees in addition to the wage
	Permanent/temporary jobs
Working hours	Documented employment condition (e.g. contracts)
	Number of working hours
Health and Safety	Existence of health and safety policy
	Health and safety training for employees
	Regular health checks for employees
	Provision of sanitation facilities for employees
Meeting basic needs	Amount of energy consumed per day per person
Child labor	Compliance with local regulations on child labour
	Number of hours of child labour identified
	Working children younger than 15 and under the local compulsory age are attending school
	Number of incidents of child labour abuse
Equal Opportunities/Discrimination	Actions taken to increase staff diversity and/or to promote equal opportunities
	Share of women in labour force

Table 11. Inventory indicators for local communities

Impact Subcategory	Inventory Indicator
Community engagement	Action and/or investments for community engagement
	Number and quality of meetings with community stakeholders
	Presence of land ownership certificate by contract farmers
Safe and healthy living conditions	Number of cases of disasters and pollutions caused by the company activities
	Presence of programme to address the health and safety of local communities
	Percentage of local community who have access to improved water sources (PHBS)
	Percentage of local community who conduct PHBS
Delocalisation and migration	Actions taken to increase staff diversity and/or to promote equal opportunities
	Migrant workers
Local employment	Percentage of workforce hired locally

Impact Subcategory	Inventory Indicator
	Negative impacts on local community due to population growth and demographic change (e.g. transmigrant)
Human health issues - Non-communicable diseases and other health risks	Digestive diseases

Table 12. Inventory indicators for society

Impact Subcategory	Inventory Indicator
Ethical treatment of animals	Presence of measures relating to location, construction and equipment of chicken farm
	Presence of measures relating to flooring, bedding, resting surfaces and litter quality
	Presence of measures to manage and control thermal environment in chicken housing (thermal, humidity)
	Incidence of diseases, metabolic disorders and parasitic infestations
	The contract farmers monitor that animals are always happy and healthy; and free from hunger, pain, fear, and distress
	Presence of inspection to ensure chicken are in healthy condition
	Number of hours contract farmers stay in farm area
	Presence of activities to improve farmer education in services offered or as initiatives
	Percentage of closed-house farms

Table 13. Inventory indicators for consumers

Impact Subcategory	Inventory Indicator
Health and safety	Presence of management measures to assess consumer health and safety
	Policies and practices on antibiotic and hormone used
	Presence of information of health and safety requirements
	List of certifications on health and safety

Based on the inventory indicators, we designed a set of questionnaires for the stakeholders. To ensure that the questionnaires are valid, relevant, reliable, easy to understand and succinct, we conduct the following:

- Review the questionnaire by sector experts
- Conduct a pilot test to several test respondents
- Conduct test run to anticipate time allocation for the respondents
- Revise the questionnaire based on the feedback

4.1.3 Conduct Survey

The survey was conducted from September to December 2020 through phone interviews and online surveys (only for society as consumers). Third-party enumerators were assigned to collect data to achieve independent answers from the target respondents. To ensure that the enumerators were able to conduct the survey accordingly, the enumerators were trained and provided a script to address potential questions and ensure a uniform method of interviewing. Table 14 below shows a summary of the number of respondents targeted, contacted and successfully interviewed or surveyed.

Table 14. Summary of stakeholders engagement for data collection

Stakeholders	Target	Interviewed	Contacted	Notes
Contract Farmers	300	194 (64.7%)	627	Classified based on area, performance and farm capacity
Workers	100	28 (28.0%)	173	Workers of contract farmers
Local Community	100	7 (7.0%)	95	Local community in contract farmers' area
Consumer	100	119 (119.0%)	119	Random sampling in general groups of consumer
Total	600	348 (58%)	1,014	-

There were some challenges during the data collection phase that led to our inability to achieve the initial sample target set. The most prominent challenge was the Covid-19 pandemic situation, where due to movement restrictions, hindered us in making direct contact with the prospective respondents and had to use a phone interview. This communication method led to other challenges:

- Poor phone connection for contract farmers and workers, particularly in rural areas
- Difficulties in setting up a time for interviews with the contract farmers and workers
- Unable to contact the target respondents

Table 14 shows that out of 600 target respondents, we have contacted more than 1000 potential respondents. Despite the effort, in total we were only able to interview 34% of the contacted candidates, which are 58% of the target respondents.

A thorough interview comprising 93 questions, subject to 26 inventory indicators of five impact subcategories, was conducted to collect the primary data.

4.2 Inventory Result

4.2.1 Contract Farmers

Under the contract farmers stakeholder category, 194 contract farmers successfully interviewed out of 300 of the initial target. These 194 respondents consisted of 167 male farmers (86.08%) and 27 female farmers (13.85%). Age-wise, the respondents interviewed for the data collection were from

various age groups, from the youngest, i.e. 18-25 years old to above 60 years old. Figure 4 and Figure 5 xx shows the summary of compositions based on gender and age group:

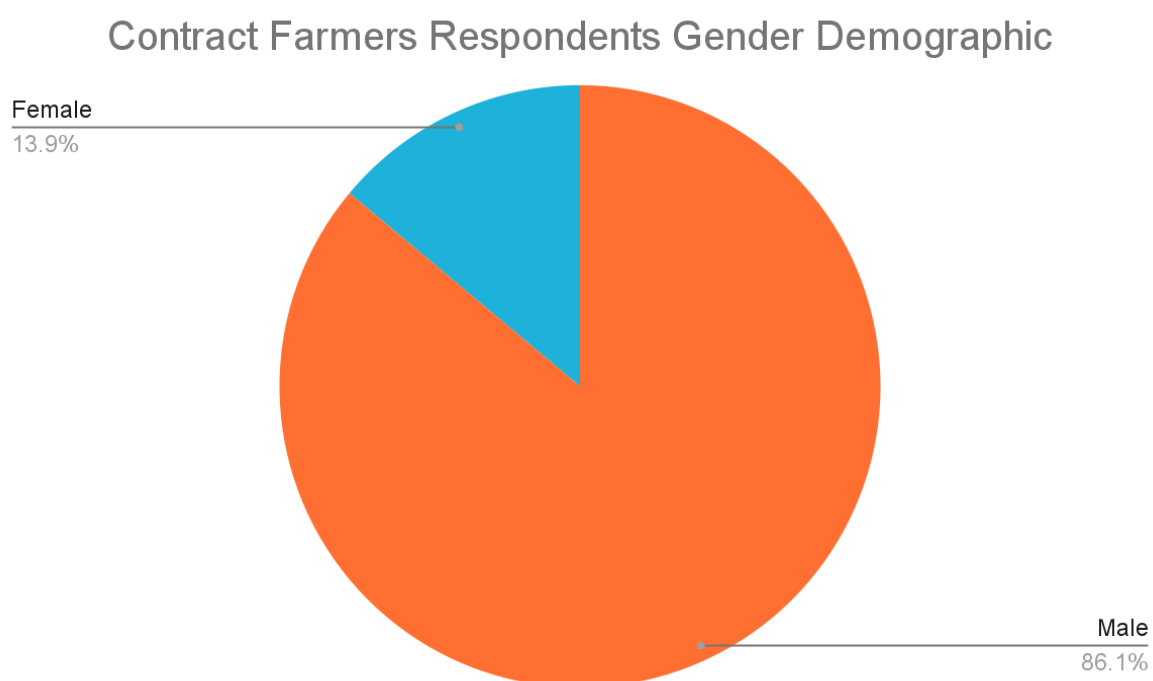


Figure 4. Contract Farmers Respondents Gender Demographic Summary

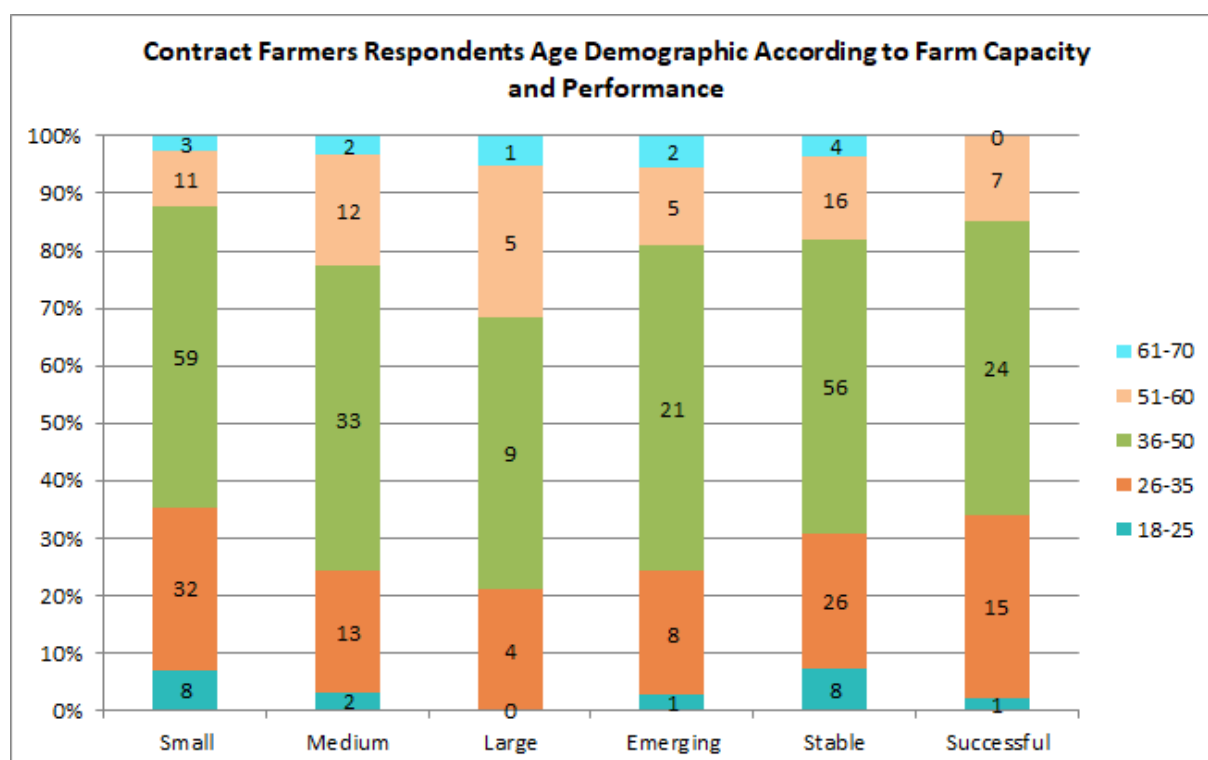


Figure 5. Contract Farmers Respondents Age Demographic Summary

A. Wealth Distribution

The social LCA methodological sheet defines wealth distribution as on how the value is distributed among all the actors of the value chain. An equal distribution is obtained when a fair selling price for a product or service is established, i.e., when the price is such that it covers all the production costs and everyone returns an acceptable profit margin. In the inventory indicators relevant to wealth distribution, this is reflected through the existence of contractual agreement, transparency and fair information to all the contract farmers, and the improvement of income or farming abilities of the contract farmers.

Japfa provides support for farming practice and knowledge improvement that enhances skills and eventually, economic prosperity for the contract farmers.

In Indonesia, a closed house is the ideal type of house for farming that can also accommodate the adaptation to climate change that is imminently affecting the agricultural sector. An ideal closed-house would have specific requirements, such as temperature and humidity control to optimise comfort, population density to ensure the freedom of movement and expressing normal behaviour for the chickens, and less disturbance or noise to reduce fear and distress. As there are many types of chickens, specifically in Indonesia, a closed-house system can be adjusted according to the types of chickens. It is easier to adjust according to the comfort of the chicken, allowing its genetic potential to emerge.

However, a closed-house system would require a substantial financial investment. An upgrade from an open-house system to a closed-house system would indicate an economic improvement for the farmers. More than half of the contract farmers with open-house type responded that changing the type of the house to a closed-house is favourable. Technically, Japfa provided the information regarding access to capital in setting up a closed-house. Information on equipment selection, including price estimates, are provided. However, financial assistance only goes as far as providing recommendations/assurance for contract farmers required by Banks. Through their partnership with Japfa, 86% of the farmers who participated in this study feel a sufficient income increase.

Based on Japfa's Standard Operating Procedures (SOPs), contract farmers are provided with information about partnership programme and contract. Japfa's partnership system is not time-bound, thus allowing partners to exit the programme at any time. This flexibility allows fair relationship to the partners.

According to the survey, Japfa has a clear contractual agreement with contract farmers regarding profit sharing. The contract also covered an explanation on key performance indicators (KPI) for each farmer. Contract farmers are equipped with technical knowledge to improve their farming skills which are tracked with KPI. Under the Government Regulation [19], Japfa should supervise any obstacles experienced by contract farmers from the beginning and during partnership, and Japfa has met this recommendation, as reflected in the survey result. One way to keep the farmers on track with their KPI was to provide and explain their results transparently and in detail, including the basis of calculation for the KPI.

This effort has subsequently resulted in a relatively excellent performance index (PI) in all areas, farm capacities and rate of successes. Through the improvement of PI, the farmers' livelihood can be improved.

The agricultural sector is prone to price fluctuation, following the market price. Often farmers experience loss when the market price plummeted. However, in the Japfa partnership programme, the contract provides price security where farmers who achieve expected KPI will still receive contracted price floor regardless of the plummeted market price.

Low or volatile prices pose significant problems for farmers and other agents in food chains who risk losing their productive investments if price falls. It becomes a big problem for farmer particularly in developing country such as Indonesia, because they are not operating in a sufficiently large scale to be able to carry over income from one season to another. Thus, the welfare of the family and the viability of the farm may be threatened by market volatility.

Japfa provides security to farmers by setting a guaranteed minimum price floor to minimize the impact of market volatility.

The guaranteed price floor is very helpful to insulate farmer from market price volatility that can sometimes goes below farmer's operating cost. In the situation where market price goes higher, farmer will still be able to enjoy the revenue generated because Japfa is not setting the price ceiling.

Wealth distribution can also be reflected through land ownership. Based on the survey, most of the contract farmers own the land. Only 13.40% of contract farmers do not own the land. These contract farmers either rent the land or rent an existing poultry house (2.6%).

Based on the survey results and discussions, farms can also be built utilizing unproductive land. Various kinds of unproductive land have been successfully converted to farms, thus creating income for contract farmers.

Overall, Japfa has provided fair treatment to the contract farmers that allows livelihood improvement. However, there is still room for improvement, for instance, a policy requiring contract farmers to obtain a food safety certification or other related certificates. Initially during the design of the inventory indicator, we include certification as one of the indicators of wealth. However, results suggested that there is no correlation between certification and wealth.

B. Supplier Relationship

Partnering with contract farmers improves contract farmers' ability to prosper indefinitely while also fostering a good relationship with them. All contract farmers are satisfied with the service provided by Japfa, except for three contract farmers (out of the 194 farmers sampled). Japfa continuously improves their technical knowledge and shares knowledge with the contract farmers to improve their farming practices, which leads to improved productivity of the contract farmers.

Japfa has developed a standard operating procedure for farm visits and monitoring. An agricultural extension service (i.e. non-formal education service for farmers, such as

counselling or seminar) is not part of Japfa's SOP. However, Japfa's field technical officers, also called *Petugas Penyuluh Lapangan* (PPL), or the head of the unit, occasionally initiate knowledge sharing sessions for farmer partners in close proximity. Japfa also provides veterinarians for the farmers should any disease incidence or abnormality occur.

Most contract farmers attended at least one extension service a year. The topics covered are in accordance with the requests and needs of the contract farmers, with practical know-how that can be implemented on the ground. The PPL then evaluates the practical implementation of this knowledge. The PPL may assess the contract farmers directly during the extension service activity and after that through daily checks or during visits. The capacity of the contract farmers on farm building and poultry management have improved through knowledge transfer and sharing sessions arranged by Japfa. In leveraging their knowledge on farmhouse construction and management, contract farmers also organise sharing sessions among themselves. All and all, 91.24% of contract farmers would recommend partnering as contract farmers with Japfa.

C. Feedback Mechanism

In Japfa, a feedback mechanism is in place, and the Company has a clear policy in addressing complaints. For this subcategory, service satisfaction by Japfa to the contract farmers were also assessed based on the punctuality of time delivery and the number of livestock production facilities or Sapronek shipments in adherence to the partnership contract and the satisfaction rate on other services such as a veterinarian, technical support, extension service and access to funding. The survey showed the time delivery and number of Sapronek mainly sent conforms to the contract, and contract farmers are satisfied with the service provided. However, only less than half of the contract farmers received access to funding, with one area perceived the service to be still lacking.

D. Fair Competition

According to the national law [19], profit-sharing rules have to be written in the agreement. To go beyond the compliance requirement, we defined it as necessary to ensure the contract farmers understand the rules. Contract farmers who understand the rules well will be stimulated to be innovative in their farming practices, thus improving their performance. In Japfa, it is mandatory to explain to the contract farmers comprehensively about the rules, including the Sapronek and the chicken harvesting price. Japfa team is obligated to provide an explanation when a partner experiences a production failure, as there is an evaluation system and should also be informed to the farmer.

E. Meeting Basic Needs

Japfa recognises the right to water and sanitation and acknowledges that clean drinking water and sanitation are essential. Food security is a key component of sustainable livelihoods, for it is considered a basic right. On the Meeting Basic Needs impact subcategory, data collected was based on contract farmers' daily meal consumption, water sources and feasibility of latrine. There are 79.27% contract farmers consumed ideal daily food consumption that follows the balanced diet, while 15.54% partially follow the diet and 5.18%

are not really meeting the ideal requirements of the diet. No shortage of water sources is detected. Regarding sanitation, 52.58% of contract farmers have a proper installation of latrine, in accordance with criteria set by the government [17].

4.2.2 Workers

As previously mentioned, in the scope of this study, there are two types of workers assessed, workers of contract farmers for foreground processes and those at Japfa relevant units (i.e. feedmill, parent stock farms, vaccines and medicines manufacturer) for background processes.

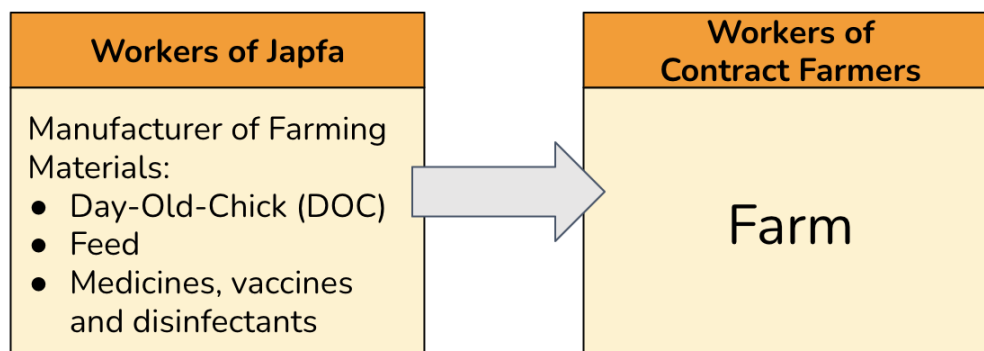


Figure 6. Types of Workers Assessed Under the Study

Data collection for Japfa's workers was collected based on the Company's annual and sustainability report of 2020. Data for contract farmers' workers were collected through phone interviews. Twenty-eight respondents represent the contract farmers' workers, and all of them are men. There are six people aged from 18 to 25, 12 people aged 26 to 35, nine people aged from 36 to 50, and only one person aged more than 51. Initially, the sample target was 100 respondents. However, in practice, we were only able to engage with fewer workers. Out of 173 people contacted, only 16.18% were successfully interviewed. Figure 7 shows a summary of workers of contract farmers' age.

Workers of Contract Farmers' Respondents Age Demographic

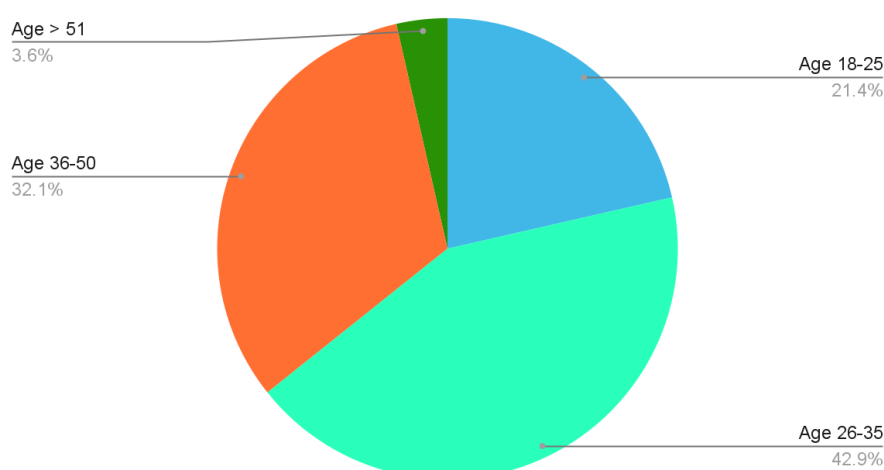


Figure 7. Workers of Contract Farmers' Respondents Age Demographic Summary

Primary data were gathered through a questionnaire consisting of 80 questions, covering 19 inventory indicators of seven impact subcategories.

A. Fair Salary

In Indonesia, the government set the provincial minimum wage level (*UMP-Upah Minimum Provinsi*) above the provincial average living wage. The living wage per month defined by the government takes into account the following components [52]:

- Food and beverage
- Clothes
- Household
- Education
- Health
- Transportation and communication
- Recreation, savings and social security

As a large company, Japfa's wage compensation base level is set above the provincial minimum wage level (*UMP-Upah Minimum Provinsi*). According to the sustainability report 2020, the average entry-level wage provided by the Company is 142% higher than the UMP. Therefore, the Company complies with the regulation or beyond. In Japfa, an annual bonus is paid by the Company to its workers.

The contract farmers are not obliged to pay salary at the UMP; however, most contract farmers provide workers with UMP or higher in their respective area. In Areas 1 and 4, 29% of the workers received a salary below the provincial minimum wage level, including 14% below the provincial average living wage. One worker was identified to receive a wage on the national poverty line wage.

More than 60% of contract farmers do not differentiate between wages of men and women, while the rest do pay higher wages to men for similar work. Regarding the bonus, it is not mandatory unless stated in the working agreement. In Japfa, the annual bonus is provided by the Company. Approximately 85% of contract farmers' workers said they received a bonus where the calculation is well-communicated.

B. Social Benefits/Social Security

According to the national law [12], companies are required to pay a religious holiday allowance in addition to the wage. Based on the data collected, Japfa's workers received this allowance that indicates the Company complies with the law.

While in the contract farmers' farms, only 40% of the workers receive this type of allowance. However, other additional social benefits are provided, although not regulated in the regulations. The benefits include meal allowances, groceries, accommodation, and few contract farmers even providing school allowance for workers' children. Related to job status, 75% of contract farmer workers are permanent, and 25% are temporary.

C. Working Hours

Related to Japfa's operational units, the Company establishes its working hours following the applicable laws and regulations, including 40 working hours per week, and avoids forced labour practices.

The data collected shows that approximately only 10% of workers are bound by a contract that includes an agreement on working hours. However, with or without a contract, workers are well informed about the working hours required. There are 25% of workers who work 8 hours a day, 54% work more than 8 hours a day, 21% work less than 8 hours a day. According to the interview, workers are required to stay on the farm for an extended period of time to monitor and check the chicken periodically. Irrespective of the working hour, the working load among the workers is unknown.

D. Health & Safety

In Japfa's operational units, the occupational health and safety (OHS) management system is in place and applicable for all people in the workplace, not limited to the workers. Anyone is required to use personal protective equipment. For the workers, they are also provided with OHS training that is regularly conducted every year. Workers are also facilitated with medical protection, including doctors, health clinics, healthcare and insurance.

Japfa implements OHS management system for their workers. However, OHS for the workers of the contract farmers, which is beyond the control of Japfa, can still be improved.

Medium and large size contract farmers have workers. The practice in the contract farmers is not as strict as Japfa. However, based on the data collected, more than 80% of contract farmers have an OHS policy, although only a few workers received OHS training. In the workplace, workers are provided with safety measures including appropriate Personal Protective Equipment (PPE), e.g. mask and gloves, a first aid box, fire extinguisher and alarm. Medical protection is also in place through insurance or reimbursement systems. However, approximately 18% of workers said they do not receive any medical coverage.

Most contract farmers do not conduct regular health checks for their workers. Only 29% of workers received this. Yet, personal hygiene at the workplace is taken care of through proper sanitary places that follow government standards [50].

E. Meeting Basic Needs

On the meeting basic needs impact subcategory, data collected was based on the daily meal consumption of workers. In contract farmers' workers, 43% of workers consumed ideal daily food consumption that follows a balanced diet, while 40% partially follow the diet and 17% are not meeting the ideal requirements of the diet.

F. Child Labour

In Japfa, the Company does not hire minors, as reflected in the recruitment requirement that requires the applicants to be at least 18 years of age. Therefore, no child labour is detected in the Company's operations.

In the contract farmers' operations, two child labourers were detected among the farmer respondents. It is considered child labour because this worker is under school age, i.e. 12-15 years old, and he/she does not go to school. According to the law [11], children between the age of 13-15 are allowed to work as long as they still attend school and the working time does not interfere with school time.

G. Equal Opportunities/Discrimination

Following the latest sustainability report 2020, workers in Japfa are 90% dominated by men. However, in the recruitment process, actually, there is no discrimination between men and women. As stated in the report, since the hiring process, the Company focuses on each employee's competence, experience and cultural fit. Thus there is no gender bias. Furthermore, the rights of employees are respected at all levels, and they are treated fairly and equally, including how they are remunerated.

Based on the data collected in the contract farmers, only 6% of farmer respondents have women workers. Women are rarely found to be involved in the farming processes. One of the reasons is similar to child labour. The work requires physical strength that is more suitable for men. Hence, this is not due to discrimination. Because of the physical requirement for the work, women prefer not to work in this condition.

In the beginning, we were planning to assess work motivation among workers. However, after the data collection, it was found that various reasons motivate employees to work, and none of this motivation is better than the other. Employee motivation is removed from the analysis due to the lack of supporting information. To assess employee motivation requires continuous observation and cannot be conducted in a one-time sampling. Further research is required to assess this topic.

4.2.3 Local Communities

The local community stakeholder is represented by seven respondents living in the contract farmers area. There are six male and one female respondent.. The initial target set was 100 respondents, yet it was unable to be reached following the difficulties in engaging the respondents due to the pandemic. Out of 95 people contacted, only 7.48% were successfully interviewed.

Primary data were gathered through a questionnaire consisting of 24 questions, covering 12 inventory indicators of five impact subcategories.

A. Community engagement

Running the farm would undoubtedly lead to interactions with the local community in the area, whether positive or negative. According to the contract farmers, 20.10% of them have had negative interactions with the local unauthorised party. In the case of negative interactions with the local thug, the contract farmers mostly have a solution to compromise or deal with them. Most contract farmers have positive interactions with the local community, such as through dialogues or charity. The contract farmers also asked for permission to run a farm from the neighbourhood leader, though there are 2.58% who do not.

B. Safe and healthy living conditions

In relation to the impact of the farms' operation on the surrounding living condition, 29.38% of the contract farmers have received some complaints on disturbance stemming from the farms. The disturbances are considered causing mild inconvenience and majority can be handled by the contract farmers. According to the local community members interviewed, there are 2 cases emerging based on feedback from two respondents: smell pollution and fly infestation though the farm is located far enough not to hinder denizens. Another respondent, however, believed that the farm operations caused pollution leading to disease proneness. Overall, most of the respondents believed that the farm operations do not cause any harm to the livelihood of the local community or the surrounding water quality and quantity.

C. Delocalisation and migration

There are contract farmers who employed transmigrants along with local people to aid in farm operations. All the workers interviewed who are transmigrants were able to adapt very seamlessly with the local communities surrounding the farms. As a transmigrant, this is important particularly to avoid conflict due to social gaps, e.g. in culture. All of the contract farmers who employed transmigrants provided assistance to help adaptation except for one farmer.

D. Local employment

According to the local regulations, there is a minimum percentage requirement of local workers, where the percentage varies depending on the jurisdiction.

73% of the contract farmers complied with the local employment regulations.

Based on the surveys to the contract farmers, 73% of the contract farmers complied with the local employment regulations [35, 36, 37, 38] while 6% did not, and the rest were working by themselves or aided by their family members. All of the local community members experienced no negative impact due to the contract farmers hiring transmigrants.

E. Human health issues - Non-communicable diseases and other health risks

Human health issues are closely related to the livelihood of a community. In assessing human health issues related to diseases and other health risks, there are many areas to cover that are not feasible in a one-time sampling. Hence, human health issues are removed from the analysis due to the lack of supporting information and requires further research.

4.2.4 Society

As previously mentioned, the questions for society are included in the contract farmers' questionnaires for efficiency reasons. The section for society in the contract farmers' questionnaire consists of 15 questions that are covering nine inventory indicators of one impact subcategories.

In general, there are common industry standards for farms and treatment for chickens. Japfa also has a standard for their own farms in relation to animal welfare, such as biosecurity practices or

mandatory equipment in the farms. Some of Japfa's standards are beyond the common industry standard as Japfa places great importance on ethical animal treatment.

Overall, while the contract farmers show that they consider chicken welfare when building and managing their farms, some of them do not comply with the standards (Japfa or common industry) in some aspects. The contract farmers acknowledged some occasions were found where chickens are not in the optimum conditions, such as due to electricity shutdown (blackout), which may affect the health and safety of the chicken.

4.2.5 Consumers

In this study, consumer stakeholder assessment is based on the practices implemented by Japfa that may affect their consumers. The data on Japfa practices were collected following the Company's 2020 annual financial and sustainability report creation. Following the assessment, the result will then be affirmed further by the result collected from an online survey randomly spread to the general consumers. The general consumers are represented by 119 respondents, consisting of 39 men and 80 women. There is one person aged from 12 to 17, 54 people aged from 18 to 25, 55 people aged 26 to 35, six people aged from 36 to 50 and 3 people aged from 51 to 60. The initial sample target was 100 respondents, and we can engage respondents more than the target set. Primary data gathered through a questionnaire consists of ten questions covering four inventory indicators of one impact subcategory.

Japfa upholds tremendous importance in ensuring the best practices in providing high quality and healthy animal protein products to the consumers, starting from production in their farms until the products arrive safely to consumers' access in the market.

Japfa implements stringent biosecurity, vaccination for chickens, balanced nutrition, safe and clean housing, proper animal handling, along traceable distribution. Japfa farms do not use Antibiotics Growth Promoter (AGP) which complies with the local regulations and international standards.

Not only does Japfa abide by the local and international standards/regulations, but they also strive to achieve the best possible practices, such as through the highest food safety certification (FSSC 22000).

5. Social Life Impact Assessment

5.1 Reference Scale

The study uses five-point scales to assess each social topic. The middle level (0) represents compliance with the Company's policy, sector practice, Indonesia's laws or international standards. Positive changes above the standard of conformity are rewarded by positive ratings. Negative scores are given when non-compliance is present, either silent complicity or no attempts to resolve the social problems found. The lowest level of enforcement is considered when no data is available.

The table below shows each social impact's score. The specific reference scales per impact are based on performance indicators, questions about the situation and data we have received. Table 16 shows the reference scale used to score each answer given by the stakeholders.

Table 16. Reference scale definition under this social assessment

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
Contract Farmer	Wealth Distribution	Contract farmers' knowledge improves significantly, including how to upgrade to a better farming system. The company offers access to farming technology improvements(e.g. closed houses). As a result, there is a significant increase in income (>50%). Farmers are able to obtain HACCP or similar certification.	Contract farmers' knowledge moderately improves. The company offers access to farming technology improvements (e.g. closed houses). Slight increase in income (<50%).	The partnership program is transparent, and the company provides contract farmers assistance to establish the business. After joining the program, no changes in income.	The partnership program is not fully transparent, and no assistance in establishing the business. After joining the program, income has slightly decreased (<50%).	The partnership program is not transparent, and no assistance in establishing the business. After joining the program, income has significantly decreased (>50%).	[18]
Contract Farmer	Supplier Relationships	Japfa provides knowledge sharing in addition to the technical teams' visits, where they also frequently monitor and evaluate the implementation of farmers' farming practices. Contract farmers are very satisfied with the partnership program and willing to recommend it to other	Contract farmers receive regular technical teams' visits beyond the agreement. Contract farmers are fairly satisfied with the partnership program and willing to recommend it to other non-contract farmers.	Contract farmers receive regular technical team visits in accordance with the agreement. Contract farmers are satisfied with the partnership program and may recommend it to other non-contract farmers.	Contract farmers receive very few technical team visits that are below the agreement. Contract farmers are not satisfied with the partnership program and may not recommend it to other non-contract farmers.	No technical team visits. Contract farmers are not satisfied with the partnership program and will not recommend it to other non-contract farmers.	

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
		non-contract farmers.					
Contract Farmer	Feedback Mechanism	The company always asks for feedback routinely, fulfils delivery according to the partnership contract, and provides various extremely satisfying services for contract farmers.	The company asks for feedback routinely, fulfils delivery according to the partnership contract, and provides various satisfying services for contract farmers.	The company asks for feedback, fulfils delivery according to the partnership contract, and provides various services for contract farmers.	The company rarely asks for feedback, fulfils delivery according to the partnership contract sometimes, and provides some services for contract farmers.	The company never asks for feedback, does not fulfil delivery according to the partnership contract, and provides unsatisfactory services or no services for contract farmers.	[18], [33]
Contract Farmer	Fair Competition	Profit-sharing contract, incl. production failure, is explained to and understood by >95% of the contract farmers.	Profit-sharing contract, incl. production failure, is explained to and understood by >75% of the contract farmers.	A written profit-sharing contract is available ² . Profit sharing contract, incl. production failure, is explained to >95% of the contract farmers.	A written profit-sharing contract is not available. Profit sharing contract, incl. production failure, is explained only to >75% of the contract farmers.	Profit-sharing information is not provided transparently to the contract farmers.	[18]
Contract Farmers	Meeting Basic Needs	Contract farmers' access to safe water sources, adequate sanitation facilities and food security is regularly monitored to control whether the current conditions are not deteriorating.	Contract farmers have access to safe water sources, adequate sanitation facilities and have a sufficient food supply throughout the year.	Contract farmers' access to safe water sources, adequate sanitation facilities and food security are improving.	Several farmers do not have access to safe drinking water and improved sanitation facilities. Few contract farmers feel that they do not have a sufficient food supply throughout the	A majority of the contract farmers do not have access to safe drinking water and improved sanitation facilities. Most of the contract farmers feel that they do not have a	[17], [20], [21], [22]

² A written contract in partnership scheme is mandatory the government regulations [18]

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
					year.	sufficient food supply throughout the year.	
Workers	Fair Salary ³	Workers receive wage above the minimum living wage (for workers and their families), and performance or competence-based remuneration (e.g. bonus or higher wage), wages received above the average wages in the region for the same type of job; the employer is promoting fair salary practice to its value chain	Workers receive wage above the minimum living wage and performance or competence-based remuneration (e.g. bonus or higher wage).	Workers receive an equal minimum living wage for a single worker ⁴ . The ratio between men and women is equal.	Workers receive wages below the minimum living wage, however above the poverty line wage.	Workers receive a poverty line wage or below. Men are paid higher than women workers.	[1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12],

³ In Indonesia, the government sets the minimum wage to be above the minimum living expense to promote better living conditions (national average monthly living expense < \$ USD 150). Conditions in other countries, such as in Europe, may be otherwise. Therefore, in this reference scale, the minimum wage is scored higher than the minimum living expense. The application of this reference scale must be adjusted to the condition in the respective country.

⁴ Minimum living wages is the wage that enables workers to fulfil their needs for food and beverage, clothes, household, education, health, transportation and communication, recreation, savings and social security.

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
Workers	Social Benefit/Social Security	Employers are able to provide permanent jobs for the local people and provide allowances in addition to the mandatory religious holiday allowance that can improve employees' and their families livelihood.	Employers are able to provide jobs for the local people and allowances in addition to the mandatory religious holiday allowance.	Employers are able to provide temporary jobs for the local people and provide mandatory religious holiday allowance.	Employers are able to provide jobs for the local people but do not provide the mandatory religious holiday allowance.	Employers do not provide jobs for the local people.	[11], [12]
Workers	Working Hours	Hours worked per week are below the limits set by ILO (less than 40 hours per week) that promotes a better work-life balance. The company has a programme to promote work-life balance and track its progress and effectiveness. No intensive work.	Hours worked per week are below the limits set by ILO that promotes a better work-life balance and if overtime, workers are paid for overtime working hours. Less intensive work.	Hours worked per week, not including overtime, are at the limits set by ILO, and workers are paid for overtime working hours. Effective working hours.	Hours worked per week, not including overtime, occasionally are above or way too below the limits set by ILO, and workers are not paid for overtime working hours. Intensive work.	Hours worked per week, not including overtime, are above or way too below the limits set by ILO, and workers are not paid for overtime working hours. Intensive work.	[11], [30]
Workers	Health & Safety	Employers implement occupational health and safety practices beyond the law requirements or	Employers implement occupational health and safety practice	The employer has an occupational and health safety policy in place. Workers	No strong occupational and health safety policy in place with the	No occupational and health safety policy in place. Workers do not have access to all	[11], [13], [14], [15], [16], [17]

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
		industry practice, including for sanitation facilities. No injury is detected during the assessment period.	that is beyond the law requirements or industry practice (e.g. there is a dedicated OHS worker), including for sanitation facilities.	have access to all the required personal protective equipment and are provided with basic medical coverage according to law.	evidence of workers who do not fully comply with obligations on safety practices.	the required personal protective equipment and are provided with basic medical coverage according to law.	
Workers	Meeting Basic Needs	Workers' access to safe water sources, adequate sanitation facilities and food security is regularly monitored to control whether the current conditions are deteriorating.	Workers have access to safe water sources, adequate sanitation facilities and have a sufficient food supply throughout the year.	Workers' access to safe water sources, adequate sanitation facilities and food security are improving.	Several do not have access to safe drinking water and improved sanitation facilities. Few workers feel that they do not have a sufficient food supply throughout the year.	A majority of the workers do not have access to safe drinking water and improved sanitation facilities. Most of the workers feel that they do not have a sufficient food supply throughout the year.	[17], [20], [21], [22]
Workers	Equal Opportunities/Discrimination	There is a balanced ratio of women and men employed, and a clear recruitment impartiality.	There is a quite balanced ratio of women and men employed (e.g. 1:3), and a clear recruitment impartiality.	Women workers participating in the workforce and clear recruitment impartiality.	No women workers participate in the workforce, and there are unclear recruitment impartiality.	No women workers participate in the workforce, and there are recruitment discrimination.	[11]
Workers	Child Labour	No child labour or working child is detected (all workers above 18 years old) and has a policy to enforce child labour prohibition.	No child labour or working child is detected (all workers above 18 years old) and has policy to enforce child labour	No child labour is detected, or there is a working child (13-15 years old) but in compliance to local regulations (e.g.	Working child according to local regulations (above age 12 and in school) but working condition not in compliance	Child labour is detected and not comply with local regulations (e.g. workers are aged under 9, workers	[11]

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
		The company has a programme to raise awareness about child labour and track its progress.	prohibition.	maximum 3 hours work hour, light tasks, does not hinder school activity).	(e.g. work hour more than 3 hours, hinders school activity).	above age 12 are not in school, work hour more than 3 hours). Heavy work.	
Local Community	Community engagement	Contract farmers continuously engage with the community and provide significant contributions.	Contract farmers regularly engage with the community and provide significant contributions.	Contract farmers have an operating permit from the local authority, and a mechanism is in place to engage with the community, including for addressing grievances.	Contract farmers do not regularly engage with the community.	Contract farmers do not have operating permits from local authority, and no mechanism is in place to engage with the community, including for addressing grievances.	
Local Community	Safe and Healthy Living Conditions	No incidents on community health and safety. The presence of contract farmers significantly improves the community's water availability, hygiene and sanitation.	There are very few incidents but do not have actual impacts on community health and safety. Contract farmers have a mechanism to solve the issues that include actions to prevent incidents from occurring in the future. In addition, the contract farmers care about the community's water availability, hygiene	There are some incidents but do not have actual impacts on community health and safety. Contract farmers have a mechanism to solve the issues that include actions to prevent the incidents occurring in the future.	There are numerous incidents that have impacts on community health and safety, however, they are still tolerable .	There are numerous incidents on community health and safety, however, contract farmers do not have a mechanism to solve the issues.	

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
			and sanitation.				
Local Community	Delocalisation and migration (Local Community)	Contract farmers provide maximum efforts to help migrant workers in adapting to the local community.	Contract farmers provide some efforts to help migrant workers in adapting to the local community.	Contract farmers provide a minimum effort to help migrant workers in adapting to the local community.	Contract farmers do not help migrant workers in adapting to the local community, however, only minor conflicts are discovered in the community.	Contract farmers do not help migrant workers in adapting to the local community, and conflicts are discovered in the community.	[17], [18]
Local Community	Local employment	The company has a policy that commits to growing local employment. Encouragement is given to the local community to apply for the jobs. A grievance mechanism is in place to handle complaints on negative impacts arising.	The company has a policy that commits to growing local employment. A grievance mechanism is in place to handle complaints on negative impacts arising.	The company has a policy that commits to growing local employment.	The company does not engage in discrimination when hiring new workers.	The company refuses to employ workers from the local community.	[23], [35], [36], [37], [38], [41], [42], [43], [44]

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
Society	Ethical treatment of animals	Chicken welfare is prioritised and biosecurity practices are implemented as best in class. Chickens are in healthy and good condition and inspected routinely. Always directly involved in the farm management, and have a safe and maintained farm (closed-house farm).	Chicken welfare is prioritised and biosecurity practices are implemented beyond general industry practice. Chickens are in good condition and inspected routinely. Involved in the farm management, and have a safe farm.	Chicken welfare is prioritised and biosecurity practices are implemented according to general industry practice. Chickens are in proper condition and inspected, and have an adequate farm.	Chicken welfare is not prioritised and only some biosecurity practices are implemented. Farms are decent but chicken conditions are rarely inspected. Five animal freedoms are not fully fulfilled.	Chicken welfare and biosecurity practices are neglected. Chickens are in bad condition, not inspected, and have unsafe or unmaintained farms. Five animal freedoms are not fulfilled.	[18], [34]
Consumer	Health & Safety	The company has measures to assess and actively ensure consumer health and safety, no hormone and antibiotic growth promoter (AGP) usage. Medicine and antibiotics are only used as prescribed by veterinarians, has information of product health and safety on packaging in compliance to regulation, has food safety management system certification (e.g. FSSC 22000), along	The company has measures to actively assess consumer health and safety, no AGP usage. Medicine and antibiotics are only used as prescribed by veterinarians. Has information on product health and safety in the packaging in compliance with regulation, has food safety management system certification (e.g. FSSC 22000).	The company has measures to assess consumer health and safety in compliance with regulation, no AGP usage. Medicine and antibiotics are only used as prescribed by veterinarians. Has information on product health and safety in the packaging in compliance to regulation, has prerequisite programmes on health and safety	The company has measures to assess consumer health and safety, no AGP usage. Medicine and antibiotics are only used as prescribed by veterinarians. Has information on product health and safety in packaging but not in compliance with regulation.	The company has no measures to assess consumer health and safety, AGP is used, has no information on product health and safety in packaging, and has no health and safety certification.	[24], [26], [27], [28], [29]

Stakeholders	Impact Subcategory	Reference Scales					Reference
		+2	+1	0	-1	-2	
		with continuous product monitoring and evaluation.		(e.g. following ISO/TS 22002-1:2009).			

5.2 Data Processing Procedure

With all the primary and secondary data collected, the interview results were then scored. Each answer option in the questions has default scores that are determined based on the references collected. The scoring range used is one to five, with one as the lowest score and five as the highest possible score. However, on certain questions, the maximum score might instead be three, meaning it is mandatory according to the local or international regulations/standards. The score calculations are done for each of the classifications mentioned before.

The scoring method varies depending on the question type. For yes or no, Likert scale and single choice questions, each answer option has its own default score. Multiple-choice questions, in general, are scored depending on the number of options chosen. The more options are chosen, the higher or the lower the score will be depending on the context. On certain multiple-choice questions, each option may have different values. The score will then be determined through the average of the options chosen by the respondent. The final score for each question is calculated using the weighted average method. Several questions that cannot be assessed quantitatively are excluded from the scoring calculation and considered as supporting data. Examples of scoring method can be found in Appendix A.

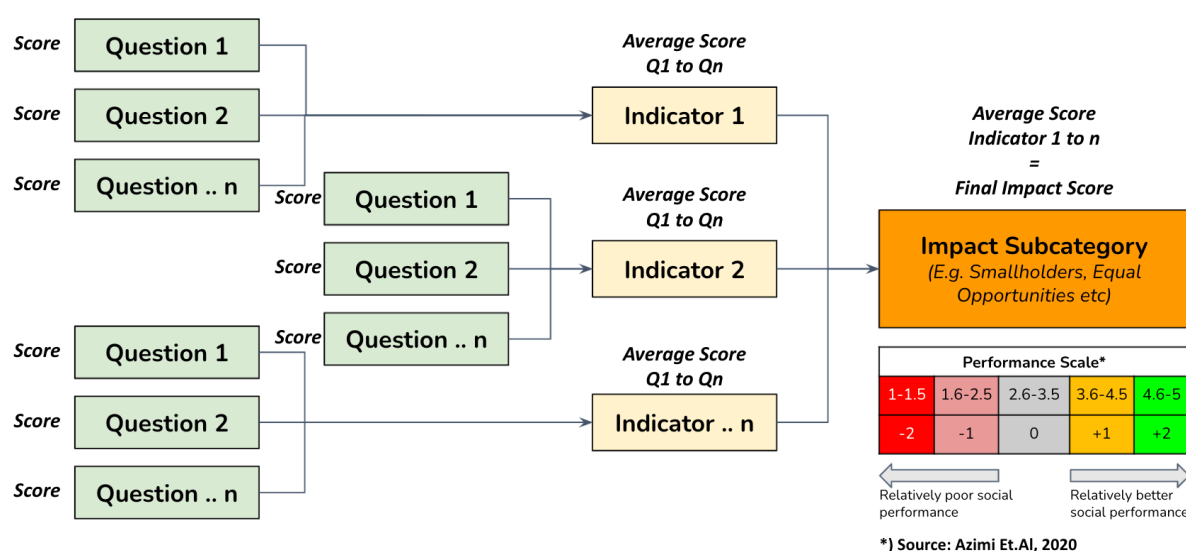


Figure 8. Illustration of Data Processing Calculation

Code	Question Type	Default Score					Notes
	Yes/No	Yes	No				
Y1	Case 1	5	1				If answering Yes, means best in class
Y2	Case 2	1	5				If answering Yes, means worst scenario
Y3	Case 3	3	1				If answering Yes, means compliance
	Likert	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
L1	Case 1	1	2	3	4	5	
	Multiple Answers	> 75-100%	> 50-75%	> 25-50%	> 0 - 25%	0%	
M1	Case 1	5	4	3	2	1	
M2	Case 2	1	2	3	4	5	

Figure 9. Scoring Example based on Question Type (See Appendix A for Calculation Example).

Each question is scored in a range of 1-5. See the description of this range in Table 17

In the data collection process, some questions are included in more than one questionnaire to ensure credibility by comparing results from other related stakeholders, such as between contract farmers and workers or contract farmers and the local community. Initially, the scores of those questions will be triangulated to prove the consistency. However, as we faced challenges in obtaining sufficient samples for the worker and local community stakeholder, the comparison will be biased because of an unbalanced sample ratio. Therefore, the score used is only from the contract farmer questionnaire as the sample number is the largest and can represent the population better.

The assessment results are averaged according to their impact subcategory. The numbers are then converted to a range of +2 to -2, with +2 as the best result and -2 as the worst result. The conversion is needed to assess each social topic according to the reference scale that has been constructed based on the references compiled. The conversion range can be seen in Table 17.

Table 17. Scoring conversion from scale level to score interval

Scale	Score Interval	Description
+2	4.6 - 5	Ideal performance. Best in class
+1	3.6 - 4.5	Beyond compliance/standard
0	2.6 - 3.5	Compliance
-1	1.6 - 2.5	Slightly below compliance
-2	1 - 1.5	Below compliance

5.2.1 Challenges

In the data processing phase, there are various challenges we encountered.

- As mentioned in the data collection phase, there is a lack of samples from the worker and local community stakeholders.
- Lack of standardised way in capturing the social aspect information from the interview and writing it into a report, in which an interpretation by the interviewer might be a factor in the final interview report.
- Defining the default score for each answer option. While we are using various references (laws and regulations in particular), most of them only provide the compliance conditions, so determining the higher and lower scores is complicated. There are also some questions regarding aspects that are not regulated by the law and regulations/standards, so we lack references.

5.3 Result

5.3.1 Contract Farmers as Value Chain Actor

Table 18 addresses the impact assessment results by subcategories for value chain actors or contract farmers. For the Supplier Relationships and Fair Competition subcategories, the performance is beyond compliance with a score of +1 for all types of contract farmer categories. In Supplier Relationships, the score was beyond compliance since the contract farmers are visited regularly by

the technical teams more than what is agreed in the contract. Furthermore, contract farmers are satisfied with the service provided and are willing to recommend the Japfa program to other non-contract farmers. In the Fair Competition subcategory, most contract farmers shared that they received explanations about the profit-sharing rules, the contract, and basic supply materials cost and livebird selling price. Furthermore, if the contract farmers experienced production failure, most contract farmers claimed they received explanations about the causes.

For the Wealth Distribution and Feedback Mechanism subcategories, the social performance was varied among the types of contract farmers. Mostly the performance of these subcategories is at the compliance level. Under the Wealth Distribution subcategory, the results indicate that the contract farmers are already treated equally. After joining the Japfa partnership programme, an improvement on farming knowledge was identified, while they are also provided with access by the Company to enhance their farming technology. For the Feedback Mechanism subcategory, the score was beyond compliance in certain contract farmer categories, i.e. Area 4, Stable and Small capacity contract farmers. One of the reasons identified was that the contract farmers in Area 4 were frequently asked about their feedback on the service compared to other areas. Moreover, these contract farmers are also slightly more satisfied.

For the Meeting Basic Needs subcategory, the accessibility of contract farmers to meet their basic needs was assessed. The results show that they have sufficient access to safe water sources, adequate sanitation facilities and a quite balanced diet and food supply throughout the year. A discussion on the hotspot is elaborated in the hotspot analysis in Section 6.

Table 18. Impact Assessment Results for Contract Farmers

Impact Subcategory	Area				Performance			Capacity		
	1	2	3	4	Emerging	Stable	Success	Small	Medium	Large
Wealth Distribution	0	+1	+1	0	0	0	+1	0	+1	0
Suppliers Relationship	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
Feedback Mechanism	0	0	0	+1	0	+1	0	+1	0	0
Meeting Basic Needs	0	0	0	0	0	0	0	0	0	0
Fair Competition	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1

5.3.2 Workers

The data sources and impact assessments for Japfa workers and contract farmers workers are different.

Japfa Workers

For Japfa workers, the data was collected from the Company's annual or sustainability report. Thus, it is assumed that the practice is uniform between one unit to another. The results shown in Table 19 provide information that the Company's scores on fair salary, social benefits/security and meeting basic needs are beyond compliance. While for the working hours, health and safety, child labour and equal opportunities/discrimination, the score is at the compliance level.

Table 19. Impact Assessment Results for Japfa Workers

Impact Subcategory	Impact Assessment Score
Fair Salary	+1
Social Benefit/Social Security	+1
Working Hours	0
Health & Safety	0
Meeting Basic Needs	+1
Child Labour	0
Equal Opportunities/Discrimination	0

Contract Farmer Workers

The social impact assessment results on workers of contract farmers are shown in Table 20. The scores ranged from slightly below to beyond compliance and varied between contract farmer categories. The working hours and child labour impact subcategory, the results show slightly below compliance level. For the fair salary, on average, all areas are at the compliance level. However, when comparing the performance, the emerging contract farmers and the small ones have better scores. Practice on social benefit and security is also mostly on compliance, but areas 1, 2 and 4 and those contract farmers with large capacity went beyond compliance. Overall, the practice has also not yet achieved compliance among contract farmers in the health and safety category, only area 3, contract farmers with stable performance, and contract farmers with large capacity who reached the compliance level. In general, contract farmers from area 1, those who are successful and those who own large capacity farms achieved a slightly beyond compliance level in the meeting basic needs category. Most contract farmers are also on the compliance level for equal opportunities/discrimination for workers; however, in area 2, the practice is slightly below compliance, which is interesting to investigate further.

Table 20. Impact Assessment Results for Workers of Contract Farmers

Impact Subcategory	Area				Performance			Capacity		
	1	2	3	4	Emerging	Stable	Success	Small	Medium	Large
Fair Salary	0	0	0	0	+1	0	0	+1	0	0
Social Benefit/Social Security	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
Working Hours	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Health & Safety	-1	-1	0	-1	-1	0	-1	-1	-1	0
Meeting Basic Needs	+1	0	0	0	0	0	+1	0	0	+1
Child Labour	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Equal Opportunities/ Discrimination	0	-1	0	0	0	0	0	0	0	0

5.3.3 Local Communities

The social impact assessment on local communities is only done for those from surrounding contract farmers' farms. The results in Table 21 shows that in the community engagement, the contract farmers mostly achieved compliance level, with those in area 2 and large capacity being at beyond compliance level. For safe and healthy living conditions, as well as delocalisation and migration category, the score is all on the compliance level. On local employment, the practice is beyond compliance level.

Table 21. Impact Assessment Results for Local Communities of Contract Farmers

Impact Subcategory	Area				Performance			Capacity		
	1	2	3	4	Emerging	Stable	Success	Small	Medium	Large
Community engagement	0	+1	0	0	0	0	0	0	0	+1
Local Employment	+1	+1	+1	+1	+1	+1	+1	+1	+1	+1
Delocalisation and migration	0	0	0	0	0	0	0	0	0	0
Safe and Healthy Living Conditions	0	0	0	0	0	0	0	0	0	0

5.3.4 Society

The impact subcategory assessed on society is more on the ethical treatment of animals done by the contract farmers. There are nine indicators to investigate the animal welfare practice done by the contract farmers, and all contract farmers achieved the compliance level as shown in Table 22. In short, the compliance level means the contract farmer practice is similar to other farmers in the commercial farming industry, specifically in Indonesia.

Table 22. Impact Assessment Results for Society

Impact Subcategory	Area				Performance			Capacity		
	1	2	3	4	Emerging	Stable	Success	Small	Medium	Large
Ethical Treatment of Animals	0	0	0	0	0	0	0	0	0	0

5.3.5 Consumers

Assessment on the consumer stakeholder category was done based on the data collected from the Company's record in the annual or sustainability report. It only assessed the practice done by Japfa, and the data collected is from general conditions. It is identified that the Company has the Food Safety System Certification (FSSC) 22000 that shows assurance on its product health and safety assessment.

Table 23. Impact Assessment Results for Consumers

Impact Subcategory	Impact Assessment Score
Health & Safety	+1

6. Interpretation of the results

6.1 Contract Farmer as Value Chain Actors

All impact assessments for the Suppliers Relationship, Fair Competition subcategories, and Feedback Mechanism subcategory (area 4, stable and small farms) scored slightly above compliance, whereas in the Wealth Distribution, Meeting Basic Needs and Feedback Mechanism impact subcategory were at compliance level.

A. Wealth Distribution

Wealth distribution is related to the education and performance of the farmers' farm operation. The scores were relatively similar across areas, performance and capacity, i.e. compliance level and beyond compliance for specific subgroups (i.e. area 2, area 3, success contract farmers, and medium capacity contract farmers). The results indicate that the contract farmers are treated equally while being provided opportunities to improve their farming practice, for instance, for the transformation from the open- to the closed-house farm system. One of the most notable contributors under this impact subcategory is that these contract farmers experienced education improvement. A better knowledge of good farming practices will lead to better performance that results in income improvement. Contract farmers claimed that partnering with Japfa has also allowed them to support their families, such as sending their kids to higher education.

Based on the survey, upon the initial phase of joining the partnership, the prospective contract farmers tend to discuss with their peers instead of reaching out for support from the Company. To improve the social performance in this context, Japfa could increase engagement intensity for consultation and support during the initial phase, which helps farmers fulfil the partnership requirements.

It is also essential for the contract farmers to receive and understand the KPI calculations. In Japfa, this is already part of the partnership procedure. However, the survey showed that many contract farmers did not truly grasp how the calculation is done. Therefore, it is recommended to include a statement from the contract farmers within the partnership agreement, asserting their understanding of the KPI calculation. Subsequently, it has to be made sure that the contract farmers have the agreement copy.

Under this subcategory, we included the presence of HACCP or similar certification as one of the wealth indicators. Being able to afford this kind of certification can prove that the contract farmers can fulfil their basic needs and have the resources to pursue beyond core requirements, as obtaining this certification needs significant effort, commitment, and funding.

B. Suppliers Relationship

In general, supplier relationship correlates with how a systemised knowledge transfer could serve the contract farmers. The knowledge transfer is done by PPL, technical support, or coPPL through a visit, joining sharing sessions held by contract farmers themselves, and attending extension service held by Japfa. The approach for knowledge transfer varies

according to individual contract farmers' performance. For successful contract farmers, the benefits of knowledge transfer directly from Japfa are better perceived, while for less successful contract farmers, a benchmark to peer contract farmers may improve their knowledge better. The data also showed that larger farms tend to receive more information than smaller ones during the Japfa on-site visit.

However, only half of the contract farmers are familiar with the extension service. The particular reason for this circumstance is the absence of coordination or a structured schedule. Socialisation leading up to the event should also be done to attract more contract farmers. Despite the commonly missing information on the event's existence, the relevancy of the topics covered at the extension service scored high marks for Japfa.

Transfer knowledge or sharing sessions about farm construction and management should always be relevant to all contract farmers. Continuous evaluation of the sharing methods and contract farmers' progress is paramount. Through structured knowledge sharing, Japfa could reach out to more contract farmers and build a better relationship with them.

C. Meeting Basic Needs

Sufficient access to primary necessity, i.e. water and food, is crucial for the proper livelihood of the contract farmers. The impact assessment results show that Japfa contract farmers can sufficiently fulfil their water needs for daily activities, including household and farming. Although, for a few farmers (<5% out of total respondents), they need to buy the water to meet their needs. Each inventory indicator related to food consumption scored exemplary. The composition of the contract farmer's family daily meals mainly consisted of all essential nutrients such as carbohydrate, protein, fat, vegetables and fruit, as suggested by the Ministry of the Health Republic of Indonesia. However, specific impacts scored lower than others. For instance, almost half of the contract farmers in Area 2 do not follow the balanced diet recommended. A similar thing also happens with stable contract farmers and medium capacity farms, where they scored lowest among other impacts in similar groups.

The skills and knowledge required to produce goods and services can be linked back to physical capital or, in this study, sanitation. All contract farmers were identified to have basic sanitation. Contract farmers in Area 2 scored slightly lower than in other areas, so are contract farmers with stable performance. One intriguing result is presented by the smaller score scored by large farms than the other two capacities.

As a responsible partner, Japfa ensures all contract farmers are subject to and well educated on balanced nutrition, sufficient amounts of water, and proper sanitation. The goal can be achieved by regularly monitoring to ascertain whether the current conditions are deteriorating.

D. Feedback Mechanism

In general, the impact assessment shows that contract farmers are satisfied with services provided by Japfa (e.g. the feed, OVK, DOC, technical support, vet, etc.). The scores related to the feedback mechanism are mainly on the compliance level, with contract farmers in area 4, stable contract farmers and contract farmers with small capacity farms scoring slightly above

compliance. Based on the survey results, it is identified that contract farmers under this subgroup are asked for feedback more frequently, which resulted in a beyond compliance social performance under the feedback mechanism impact subcategory.

Several other activities also affect the score among the areas. For example, the number of products and services Japfa provided to the contract farmers, though only slightly higher than others. Improving the delivery time and conformity on the amount delivered of farming materials (DOC, Feed, OVK) will be an approach to step up Japfa's feedback mechanism. Japfa can achieve higher scores by increasing the frequency of collecting contract farmers' feedback, which might help to improve the service and engagement with contract farmers that may lead to a better contract farmers' performance.

E. Fair Competition

The presence of profit-sharing contracts is a priority for fair competition. Overall, Japfa has provided an environment that allows contract farmers to raise livestock in an equal and healthy manner by scoring the compliance level. Most contract farmers understand the profit-sharing rules under the partnership arrangement, where a full explanation from Japfa, including the Sapronek price and the chicken harvest selling price, is mandatory to be shared with the contract farmers. When the contract farmer experiences a production failure, Japfa explains why it happened. This indicates an evaluation process to improve contract farmers' performance and demonstrates that Japfa still cares for the contract farmers although their production failed. To enhance the performance of this subcategory, Japfa needs to ensure all contract farmers receive and understand the production failure explanation.

6.2 Workers

The workers stakeholder is classified into two workers of Japfa and workers contract farmers. The explanation will be combined based on the impact categories. At the end of this section, subsection 6.2.1 addresses the results of smallholder farmers, i.e. contract farmers with small capacity, that in the UNEP Social LCA guidelines are also defined under workers stakeholder category.

A. Fair Salary

For Japfa workers, the score was high because, on average, Japfa provides an entry-level wage higher than the minimum provincial wage, i.e. approximately 142%, and the ratio between men and women is equal. In addition to that, workers may receive bonuses based on their performance, which is not regulated in the law. Therefore, a bonus is considered as a beyond compliance practice.

The scores for the contract farmer workers are on the compliance level. On average, workers of the contract farmers are also given a wage above the minimum provincial wage and a bonus. However, there were contract farmers who did not provide transparent communication about the bonus to the workers. Unfair treatment between men and women workers was identified as mostly men workers are paid higher than women. Emerging contract farmers and those with small capacity farms have better performance because those who also employ women workers pay wages equally. A further study is required to specifically collect the point of view of the contract farmers or their policy on this matter.

Contract farmers from other groups mostly did not employ women, and they were not asked what would be their policy in relevant conditions.

B. Social Benefits/Social Security

This impact subcategory was assessed based on the job and social benefits provided by the employers. For Japfa workers, they are employed full time, thus allowing a steady income. Allowances are provided, not only the basic religious holiday allowance (*Tunjangan Hari Raya*) as is mandatory by the Indonesian law, but also included other benefits such as transportation allowance and pension package are also provided that made a plus for the Company's social performance under this impact subcategory.

The results showed that the overall score is beyond compliance for all categories for the workers of contract farmers. From the total 194 respondents engaged in the survey, 78.9% of them were helped by workers to manage their farm, while the rest, mostly small contract farmers, worked alone or with their family members. Mainly, the workers are employed full time, thus allowing a steady income. In addition to the wages, contract farmers provide a basic religious holiday allowance that is mandatory by regulation. Other benefits are also given to workers, e.g. accommodation, meal allowance and groceries. Few contract farmers also funded school fees for worker's children, which this initiative is considered beyond compliance. It shows effort how contract farmers could create a greater impact by providing the children access to education.

In addition to the primary wage, workers at farms are provided with additional benefits such as accommodation, meal allowance and some also supported with school fees for their children by the contract farmers, which are beyond compliance.

C. Working Hours

In this impact subcategory, for Japfa workers, it is already on the compliance level as the Company follows the applicable regulation of 40 working hours per week.

The overall score on the workers of contract farmers is below compliance for working hours. Two indicators were assessed, i.e., the number of working hours and documented employment conditions (contract). In general, eight hours per day is the acceptable regular working hours, according to ILO. Workers at the farm were identified to work overtime up to 12 hours or even more occasionally. To a large extent, workers are required to work for a long period for standby and monitoring. The actual physical work does not take a significant amount of time, such as feeding, housekeeping, vitamin intaking and health recording. This fact aligns with another study by Anisa [47] that identified the required working hours for farm workers is five hours on average, which is less than the regular working hours. There was not yet much research on this issue, and the working hours actually may differ depending on the worker's role.

D. Health & Safety

The social performance for the Japfa workers under this category is on the compliance level. Occupational Health Management (OHS) system is in place that includes the provision of personal protective equipment and basic medical coverage as set by the regulations.

An identical performance is also applied for the contract farmers under category Area 3, Stable and Large. Contract farmers for other categories were slightly below compliance. In general, most activities assessed in this subcategory were considered on compliance level because upholding health and safety for workers are required by government regulations. In all categories, the majority of contract farmers claimed to have a health and safety policy, yet the performance score was overall low due to lack of contract farmers' commitment to upholding the OHS practices in the farm, mainly it was reflected by the absence of training on OHS and regular health check for workers. It is presumed, probably low commitment among contract farmers due to the low risk of occupational injury on the farms. This assumption aligns with the injury data in Japfa's owned commercial farms, which have the lowest injuries numbers compared to other processes in its integrated supply chain. In the contract farmers, only two of them stated they had accidents. Nonetheless, as the contract farmers already have the OHS policy, it would be better to nurture the implementation to increase the safety level at the workplace.

E. Meeting Basic Needs

The workers of Japfa are beyond compliance level, as it was assumed they tend to have a more balanced diet, indicated by a better income (beyond the minimum living wage).

For the workers of contract farmers, the performance is on compliance level among all types of subgroups. Workers of contract farmers of Area 1, Successful and Large reached beyond compliance. The meeting basic needs was assessed based on the adequacy of balanced nutrition that workers can meet. Workers of successful and large contract farmers tend to have a more balanced diet than others. As the contract farmers are successful, it might affect the well-being of the workers through an enormous amount of bonus received.

F. Child Labour

Child labour is not identified in Japfa workplaces, as the Company is committed to ensuring employees are over 18 years old.

Overall, only two out of 194 respondents stated having child labourers among their workers for the workers of contract farmers. However, the absence of a policy that forbids the practice showed a low commitment that resulted in below compliance practice. Child labourers identified were all under 18 years old, whereas at two contract farmers, they are identified to be under school-aged (12-15 years old). In Indonesia, child labour is allowed under strict conditions, including the children have to attend school and do not work more than three hours a day that hinders school activities. In general, the issue on this subcategory is more inclined towards the absence of preventive action by contract farmers who did not

have a rule, whether written or unscripted, on the minimum age required in recruiting, which played a significant role in their performance for this subcategory.

Regardless of the existence of child labour policy, in general child labour still exists due to social and economic situations that cause the children having to drop out of schools. Therefore, in some cases, child labour may instead be necessary for the children to survive and improve their well-being. For example, they could improve their economic situation, perhaps even allowing them to go back to school.

G. Equal Opportunities/Discrimination

Japfa values diversity, regardless of the employees' backgrounds. The Company focuses on competence, experience and cultural fit in its hiring process, indicating a solid commitment to non-discrimination.

For the workers of contract farmers, the overall performance for this subcategory is on compliance. It showed that generally, contract farmers do not discriminate when providing job opportunities. One of the inventory indicators assessed under this subcategory is the share of women in the labour force. As mentioned on fair salary analysis, most of the contract farmers did not employ women workers. However, they intuitively do not discriminate against gender on the recruitment requirements, relatively more open and promoting equal opportunities. In Area 2, the score is slightly below compliance because the number of women workers in this area is the lowest.

6.2.1 Smallholder Contract Farmers

This section specifically analysed the impact assessment results of contract farmers who have a small farm capacity. As mentioned in Section 2.4, this type of contract farmer is considered a smallholder instead of value chain actors with the same impact subcategories. As the impact subcategories of smallholders are still being developed at the moment this report was created, through this study we would like to identify critical points that need to be addressed when assessing this stakeholder. Therefore, the discussion under this section would address the impact results for all impact subcategories, including the smallholder performance in relation to other stakeholders, i.e. workers, local community and society.

A. As Value Chain Actors

We categorise small farmers as value chain actors because it has the same impact subcategory with value chain actors. Farmers' performance varies among the impact subcategory. Three distinguished impact subcategories categorised as beyond compliance are Supplier Relationship, Feedback Mechanism, and Fair Competition. The other impact subcategories are on compliance level. No impact subcategories are classified as slightly beyond compliance nor beyond compliance.

Essentially there is no difference in the treatment of smallholders farmers compared to other types of contract farmers. However, the information regarding assistance from Japfa in providing recommendations/assurance for contract farmers required by Banks for opening a closed-house is better known to the smallholder farmers than

larger contract farmers. Even so, the survey results showed that more smallholder farmers are reluctant to switch to closed-house if compared to larger contract farmers (medium capacity). This is because almost a third of the smallholder farmers are not familiar with the procedure and the advantages of switching to closed-house. While KPI is closely related to farmers' wealth, 49% of the smallholder farmers still don't understand how to calculate it. Nevertheless, when they first wanted to join a Japfa partnership, information about the procedure for partner selection was given clearly.

Japfa establishes close engagement with their smallholder farmers through frequent contacts, which is a significant aspect for the success of these farmers.

It is identified that smallholder farmers are asked for feedback more frequently, which resulted in a beyond compliance social performance under the feedback mechanism impact subcategory.

B. Workers

In this study, we identified few smallholder farmers who also have workers. In relation to their workers, the farmers' performance is varied among impact subcategories. For fair salary and social benefit/social security, they are beyond compliance level, while meeting basic needs and equal opportunities/discrimination are only on compliance level. Like other types of farmers, for working hours, child labour, and health and safety impact subcategory, improvement is required as they are still under the compliance level, although not in inferior performance.

The results show that more than 80% of the forementioned smallholder farmers can provide income to their workers beyond the minimum living wage in their areas, with a bonus as an addition. Their fairness in giving remuneration among workers indicates the non-discrimination act of the contract farmers. The farmers claimed to provide equal wages for the same type of work. In addition to the salaries and mandatory religious holiday allowance, most farmers also provide other benefits, including food, accommodation and groceries.

The non-compliance is identified for working hours due to nearly 70% of workers having excessive working duration, i.e. more than eight hours per day compared to what is set globally, with more than 50% not paid for overtime. This condition is not different with larger types of farmers. For workers at farms, the long working hours are not necessarily followed by a heavy workload, as they are required to work for a long period to be on standby and monitor the farms. However, the smallholder farmers could improve their working mechanism by providing a written contract that will provide a transparent working agreement for the workers. For health and safety, the results show smallholder farmers still lack the commitment to upholding the practice in the farms. Hence an improvement is recommended, for example, by simply providing a first aid kit, training or socialisation and fire alarm for the workers.

In the context of child labour, there were two child labourers identified, which resulted in non-compliance performance. These two labourers have either family or acquaintance relationships with the farmers. For smallholders, this issue is more likely to appear mainly due to economic limitations.

C. Local community

The overall result is rather positive on the interaction between the smallholder farmers and the local community around them. They are beyond compliance in the Local Employment impact subcategory and compliance level for the rest of the impact subcategories. The smallholder farmers can blend in with the local community because they are considered as part of the community. The beyond compliance result for Local Employment can be attributed to the fact that smallholder farmers have smaller capacity farms, so they tend to have a small number of workers in which most of them were hired locally from the surrounding neighbourhood.

While the results for the rest of the impact subcategories are on the compliance level, there are some aspects that the smallholder farmers can improve. Some smallholder farmers do have a few migrant workers. While the migrant workers we interviewed were all able to adapt well, the accommodation and assistance provided by the smallholder farmers are minimal. The smallholder farmers can improve by giving more assistance to ensure further that migrant worker can adapt comfortably. Other aspects that the smallholder farmers can further improve are the handling of altercations with the local unauthorised party and providing more contribution to the local community.

D. Society

Focusing on the ethical animal treatment, the assessment for the smallholder farmers in relation to the Society stakeholder is on the compliance level. While the overall result for the smallholder farmers is satisfactory, there are several aspects where the smallholder farmers excelled compared to larger contract farmers. Overall, the smallholder farmers have a better farm density where the chickens are not too crowded. In addition, the smallholder farmers are also more involved in managing their farms (and spend more working hours) as they tend to have a lesser number of workers or manage the farm by themselves.

Nonetheless, there are also aspects where the smallholder farmers fell behind the larger contract farmers and can be considered for improvement. While most of the smallholder farmers control and monitor farm temperature and humidity, the smallholder farmers also have the highest percentage of contract farmers who do not control and monitor farm temperature and humidity compared to larger contract farmers. The majority of the smallholder farmers are still using the open house farm type as closed-house farms need significant investment. As the smallholder farmers have significantly less funding, their farm and housing equipment is not as complete

and advanced. One notable feature is the existence of a power failure alarm which is lacking in most of the smallholder farms.

6.3 Local Communities

A. Community engagement

The scores related to community engagement are mostly on the compliance level, with contract farmers in area 2 and contract farmers with large capacity farms scoring beyond compliance. In general, there are interactions between the contract farmers and the local community, such as respected local figures. There are a small number of negative interactions with a local unauthorised party. The contract farmers solved slight altercations with local unauthorised parties both directly or through a mediator. The contract farmers have positive interactions with the local community through contributions, such as donation or building social facilities, and dialogues with varying frequency. Most of the contract farmers have dialogues with the local people routinely at least once a month. Some contract farmers, particularly contract farmers in Area 2 and contract farmers with large capacity farms, interact more frequently with the local people contributing to their slightly beyond compliance score for the community engagement aspect. Overall, most contract farmers have asked for permission from the local governor to operate their farms.

To further improve the scores related to community engagement, Japfa can make a guideline for the contract farmers on precautionary steps or how to engage local unauthorised party. The contract farmers can also be encouraged to interact more frequently with the local people and the local governor through dialogues, activities, or social contributions to nurture positive interaction with the local community. Japfa should also ensure that the contract farmers have the local governor's consent to operate their farms.

B. Local Employment

In relation to the local employment aspect, the contract farmers were asked how many local people were employed, while the people from the local community were asked about the impacts of migrant workers' presence in their lives. The yielded result for the local employment aspect is beyond compliance level for all contract farmers. Overall, most of the contract farmers' employees are at least 75% local people, which complies with the local regulations for local people employment [35, 36, 37, 38]. The local community also experienced no negative impacts from migrant workers employed by the contract farmers in their area, hence resulting in an overall beyond compliance level for all contract farmers for the local employment impact subcategory.

While promoting local employment is essential, it would also be beneficial to have a mix between local and migrant workers to encourage skill advancement. Having ethnic diversity in the workforce may foster a more creative problem-solving work environment as there will be different approaches and perspectives [48]. The local and migrant workers would be able to uplift each other's abilities leading to overall work performance improvement.

C. Delocalisation and Migration

Some of the contract farmers employed workers from other regions. The scores related to the delocalisation and migration of the workers are on the compliance level. In general, all of the workers were able to adapt well to their new living area. Most contract farmers also facilitate the workers' by giving them opportunities to blend in through socialising or living in the local neighbourhood, except for one contract farmer whose farm is located far from the settlement area. Japfa can improve the scoring even further by setting a guideline on what the contract farmers can do to aid the workers' adaptation to new living areas. Japfa also still has the possibility to score higher as the aspect of migrant workers' living adjustment evaluation and feedback mechanism is not yet analysed in this study. It is recommended to include this aspect in future study.

D. Safe and Healthy Living Conditions

Generally, the performance for this subcategory is on compliance, showing that the presence of Japfa Contract Farmers does not negatively affect the living conditions of the local community. There were contract farmers who received some complaints from the local people experiencing disturbance to their living conditions because of the farm operations. Most of the complaints are mild inconveniences. Japfa and the contract farmers can improve the score regarding safe and healthy living conditions by improving the farm operations, particularly to mitigate the complaints on air pollution due to manure and fly infestation. Japfa can share experiences with the contract farmers regarding local community engagement related to improvement of adequate sanitation facilities and clean water availability.

6.4 Society

The assessment for Society stakeholder is mainly focused on ethical animal treatment by the contract farmers of Japfa in general. Overall, the result is satisfactory as the contract farmers in all areas, performance, and capacity complies with the existing local regulations or international standards on ethical animal treatment. While the overall result is satisfactory, there is still a lot that can be improved.

The contract farmers can achieve higher scores if there is more facility implementation in their farms by following all Japfa farm standards and adjusting their farm density to a suitable level according to the farm type. One of the most critical facilities to be considered is a power failure alarm, as most contract farmers experienced an occasional power failure. An automated power failure system to immediately activate secondary power sources would be even better to avoid chickens experiencing overheating. Installing an automated temperature and humidity control system can also improve animal condition maintenance, in addition to routine monitoring. By ensuring the best living environment possible, the chicken welfare will also improve, leading to a better social performance in this impact subcategory. Japfa can also contribute by increasing the frequency of monitoring and evaluation on the contract farmers' operation to ensure animal welfare.

6.5 Consumers

As explained in the Social Life Cycle Inventory section, for the consumer stakeholder, the assessment is based on Japfa's practices in relation to the health and safety of their products that will directly affect their consumers. Overall, Japfa's practices are beyond compliance, showing that their practices are admirable. In general, Japfa took the health and safety of their product very seriously with strict and disciplined procedures from the start of their production process until the product is distributed to customers. In addition, Japfa has attained the highest food safety certification, FSSC 22000, showing their commitment to consumers that their products are safe and healthy. Japfa also complies with mandatory practices, such as no antibiotics or growth promoter and government requirements for product information. The government requires every food product to have a specific type of packaging and the content of product information that should be included, such as nutritional value and Halal certification.

The importance Japfa places in product health and safety correspond to the general consumer expectation for food products. According to the survey result from 119 respondents, when purchasing food products, 88% of the general consumers examine the nutritional value of food, 77% contemplates health benefits, 66% checks if the food is Halal certified, and 52% inspected the product information for allergens. The result proves that product safety and health is essential information to the consumers. In addition, 82% of the respondents also consider health and safety certifications ownership such as Halal certification is crucial to assure that the products from those companies are reliable, clean and harmless.

In this study, we focused more on how the Company ensures the health and safety of our products in the production stage. While we do have a hotline service for product monitoring and evaluation, we did not analyse further on this subject as we limit the scope of the study to the production stage only. In the future study, continuous product monitoring and evaluation after the production stage should be analysed more deeply to provide a more comprehensive social performance assessment.

6.6 Conclusion and Recommendations

- The social impact for the Contract Farmers stakeholder is positive as indicated by the beyond compliance rating in Wealth Distribution, Suppliers Relationship and Meeting Basic Needs subcategories, beyond compliance for certain subgroups in Feedback Mechanism subcategory, while the rest of the subcategories are on compliance level.
- The Workers stakeholder is divided into Japfa workers and contract farmers workers. The Japfa workers results are positively indicated by the beyond compliance rating in Fair Salary, Social Benefit/Social Security, and Meeting Basic Needs subcategories.
- On the other hand, the workers of contract farmers show both positive and negative impacts. The positive impact is indicated by beyond compliance in Social Benefit/Social Security subcategory and beyond compliance for certain subgroups in Fair Salary and Meeting Basic Needs subcategories. The negative impact is indicated by a slightly below compliance score in Working Hours and Child Labour subcategories along with a slightly below compliance score for certain subgroups in Health & Safety and Equal Opportunities/Discrimination subcategories.

- The social impact is relatively positive for the Local Community stakeholder, indicated by the beyond compliance score in the Local Employment subcategory, beyond compliance in certain subgroups for Community Engagement and Meeting Basic Needs subcategories and compliance for the rest of the subcategories.
- For the Society stakeholder, the result shows that the Ethical Treatment of Animals subcategory is in compliance.
- Lastly, the social impact for the Consumer stakeholder is positively indicated by the beyond compliance score for the Health & Safety subcategory.

Specifically for smallholder contract farmers, because their role is similar with other types of contract farmers under the value chain actor subcategory, Japfa performance towards this farmers group is the same i.e. compliance for wealth distribution and meeting basic needs. While for supplier relationships, feedback mechanism and fair competition went beyond the standards. In relation to other stakeholder categories, a notable room for improvements is laid on the workers category for working hours, health and safety, and child labour impact subcategories for the workers of the contract farmers. The first two impact subcategories results are identical with large and medium contract farmers, hence the highlight would be child labour where two child labourers were identified among 194 contract farmer respondents.

In general, Japfa can further enhance its social performance by:

- Continue to implement the best practices available and ensuring that their contract farmers operate at the same standard.
- Provide guidance and encouragement from the Company to influence the contract farmers to improve their operations and relations, both with their workers and the local community around them.
- Japfa should focus on helping contract farmers improve the Working Hours, Health & Safety, Child Labour subcategories, and Equal Opportunities/Discrimination subcategory for the workers of contract farmers, as there are subcategories with below compliance scores in the workers of contract farmers. One such improvement that Japfa can do is to ensure the alignment of child labour prohibitions in the contract farmers farms and affirm the minimum age requirement for contract farmers' workers.

From the result of this study, it can be inferred that further research is needed on this subject, particularly on the hotspot impacts, as the current result may be influenced by other factors not included in this study. Discovering all the involved factors will help the Company to improve its social footprint more efficiently and plan for their social handprint effectively.

Improvements for the Execution of the Study:

- Strive to achieve minimum sample size to represent every segment of the stakeholder, especially for the workers of contract farmers and local community, for a result with a more accurate representation. The most prominent challenge was conducting this survey through online media during the pandemic that prevented us from direct contact to the stakeholders and caused low participation rate.

- Improvement in the questionnaire development process is also beneficial for increased efficiency in data processing and assessment, such as limiting the number of open-ended questions and precise phrasing to avoid misunderstanding.

7. Discussion and feedback on Guidelines and its use and Conclusion

The Guidelines have well aided the overall process of the SLCA research. These are our recommendations:

A. Goal and Scope

- There should be information on the geographical scales of each inventory indicator, whether it is global, regional or local, similar with the geographical scale of environmental impact categories. For example, global warming potential is global scale, while eutrophication potential is local scale. For social, the geographical scale of the impact subcategories needs to be defined. This can be clearly stated in the study's purpose to define the breadth and depth of the study.
- Providing guidelines on stakeholders selection based on sector specifics to give a clear direction for users whether they should include all the stakeholders or just the selected few relevant stakeholders based on the goal of their study.

B. Inventory

- Providing a data collection template to indicate how indicators should be fulfilled.
- Within the inventory template data collection, examples of detailed questions and how these questions relate to the inventory indicator should also be provided.
- The inventory should be more detailed to provide ease in data collection, especially when interviewing relevant stakeholders. Open-ended questions in template data collection should be avoided as they tend to complicate the data processing and scoring process.

C. Impact Assessment

- Providing a recommendation of references with a hierarchy system can be beneficial to guide our prioritisation in looking for references. An example of the hierarchy system would be to prioritise using the local regulation or international standards. If the subject is not under the local regulation jurisdiction, then the following reference priority would be research paper, and so on. The reference priority may also depend on the scope of the study or the social context in the geographical area, such as the culture of the study object.
- A standardised reference scale definition so everyone using the guideline would have the same understanding in determining their reference scale. The standardisation can be the scale range (e.g. 5-point scale, 3 point scale) or the numbering system (e.g. -2 to +2, 1 to 5). This pilot will provide an initial reference that can be used for other similar studies in the agri-food sector.
- When assessing working hours, it is recommended to consider effective working hours as an inventory indicator where the correlation between work duration and workload is assessed. Working hours can also be linked with a fair salary and social benefit.
- The common working hours, especially in Asian countries, are usually longer than is recommended by ILO. Based on interviews and real cases, working has become a lifestyle. People have become addicted to work and have difficulties doing things outside work or have received negative perceptions for having leisure time for not

working long hours. This aspect cannot be separated from the discussion on fair salary.

- The definition of the minimum wage set by the government may vary among countries and follow the strategy of the local or regional government. Therefore, the minimum wage cannot be set as an indicator in the reference scale. For example, in Indonesia, the government set the minimum regional wage to be above the provincial average living wage to promote better living conditions (average living wage <US\$ 150 per month per capita). Similar conditions may also apply in other emerging countries.
- In this study, we tried to assess the meeting basic needs subcategory that was not defined in the UNEP Social LCA guidelines. The results show it was difficult to be analysed as the employer had not intervened on the aspects assessed, such as water availability, sanitation facility and balanced diet. However, when intervention or initiatives on this matter are identified, we thought it necessary to include the meeting basic need subcategory to the guidelines. This will particularly be relevant for the small-holder farmers as their well-being would reflect their ability to meet their basic needs.
- Based on the discussion, small-holder farmers are interconnected with other stakeholder categories. Hence the following impact subcategories should be considered:
 1. Wealth distribution
 2. Supplier relationship, the following inventory indicators should be considered to be included when assessing this impact subcategory:
 - a. Presence of support to help farmers adapt to climate change
 - b. Promotion of sustainable farm practices
 3. Feedback mechanism
 4. Fair competition
 5. Meeting basic needs
 6. Working hours
 7. Health and safety
 8. Child labour
 - a. When assessing the child labour impact subcategory, the forced labour element should also be considered as both aspects are closely linked.
 9. Ethical treatments of animal

The local community needs to be discussed further because we consider the smallholders tend to be part of the local community itself. Therefore, the impact subcategories may not be significantly relevant to be assessed against themselves.

D. Interpretation

- Guidance or example on how detailed or concise the interpretation should be determined to improve the readability so the readers would not be perplexed by excessive or inadequate information

Overall, the Guidelines provided have been invaluable in the execution of the Japfa SLCA study. From our experience, the Guidelines have provided a structured methodology on how to conduct a social life cycle assessment that can be useful for any types of sectors. Details of implementation can be further provided as a technical reference. We hope that the suggestions and discussions we presented will better facilitate users in conducting future SLCA study and benefit a wide audience.

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Appendix

Appendix A - CALCULATION EXAMPLE

A.1. Calculation example based on type of question

- Area 1 with number of respondent is 50 (Contract Farmers)

Example (1): Yes/No Question

The first time you wanted to join the Ciomas partnership, did you get clear information about the procedures for selecting partners?	COUNT Response	% (1)	Default Score (2)	Score (1) x (2)
No	9	18.00%	1	0.18
Yes	41	82.00%	3	2.46
Grand Total	50	100.00%	-	2.64

Example (2): Likert Scale Question

My knowledge on chicken farm is better after partnering with Ciomas	COUNT of Response	% (1)	Default Score (2)	Score (1) x (2)
1 (Strongly disagree)	1	2.00%	1	0.02
2	0	0.00%	2	0.00
3	3	6.00%	3	0.18
4	17	34.00%	4	1.36
5 (Strongly agree)	29	58.00%	5	2.90
Grand Total	50	100.00%	-	4.46

Example (3): Single Choice

How often do you control and monitor the temperature and humidity?	COUNT of Response	% (1)	Default Score (2)	Score (1) x (2)
Everyday	45	90.00%	3	2.70
2-3 times a month	0	0.00%	2.5	0.00
3-4 times a year	0	0.00%	2	0.00
< 3 times a year	0	0.00%	1.5	0.00
Not performed	5	5.00%	1	0.10
Grand Total	50	100.00%	-	2.80

Example (4): Multiple Choices

Question: What is the condition of the proper place for bathing, washing, toilet (MCK) in the place of residence or in the cage area?

Multiple Choices:

No.	Requirements for Proper bathing, washing, toilet (MCK) [17]
1.	Does not pollute drinking water sources (wells and water pumps)
2.	Manure collecting holes is away from drinking water sources
3.	It is odorless and the feces cannot be reached by insects or mice
4.	Adequate size and does not contaminate the surrounding soil
5.	Easy to clean and safe to use
6.	Equipped with protective walls and roofs
7.	Waterproof walls
8.	Availability of lighting
9.	Waterproof floor
10.	Good ventilation
11.	Availability of water and cleaning equipment
12.	Availability of septic tank

Default score system:

- If all the requirements are met, score is maximum i.e. five (5)
- If only one requirement is met, score is minimum i.e. one (1)
- Partial fulfillment is scored with an interval system. As the number of requirements is 12, for each requirement that is checked will get a 0.36 points.

Number of Requirements Checked	1	2	3	4	5	6	7	8	9	10	11	12
Default Score	1	1.36	1.73	2.09	2.45	2.82	3.18	3.55	3.91	4.27	4.64	5

Example answers from Area 1:

What is the condition of the proper place for bathing, washing, toilet (MCK) in the place of residence or in the cage area?	COUNT of Response	% (1)	Default Score (2)	Score (1) x (2)
Number of requirement marked				
6	2	4.00%	2.82	0.11
8	1	2.00%	3.55	0.07
9	1	2.00%	3.91	0.08
10	5	10.00%	4.27	0.43

What is the condition of the proper place for bathing, washing, toilet (MCK) in the place of residence or in the cage area?				
Number of requirement marked	COUNT of Response	% (1)	Default Score (2)	Score (1) x (2)
11	8	16.00%	4.64	0.74
12	33	66.00%	5	3.30
Grand Total	50	100.00%	-	4.73

A.2. Calculation to combine scores of all question to generate final score for the impact subcategory

Example: Fair Salary under worker stakeholder category

Indicator	Questions	Score (From all respondents)			
		Area 1	Area 2	Area 3	Area 4
Salary paid for employees	Approximately, how much is the salary obtained in a month?	4.30	4.83	4.56	3.96
Bonus paid	Is there a bonus for workers?	4.86	4.86	4.87	4.92
	Is the profit sharing percentage or bonus informed openly to the worker?	2.75	3.00	2.29	2.76
Equity of wages among men and women	Are the wages paid for men and women workers the same for the same work?	2.43	1.00	2.00	2.60
Average (Final score for Fair Salary)		3.58	3.42	3.43	3.56
Conversion to reference scale (See Table 16)		0	0	0	0

Appendix B - CONTRACT FARMERS SURVEY

Good afternoon Mr / Ms, thank you for your time

My name is xxxx, today I want to do a survey regarding the Ciomas partnership program about:

1. Support given by Ciomas
2. The influence of the Ciomas partnership program to your life
3. Your input on this partnership program, both negative and positive

We thank you very much for your time and willingness to participate in this survey

SECTION 2 – Contract Farmers’ Profile

1. What is your name?

.....

2. What is your gender?

- a. Male
- b. Female

3. How old are you?

- a. < 18 years old
- b. 18-25 years old
- c. 26-35 years old
- d. 36-50 years old
- e. 51-60 years old
- f. 61-70 years old
- g. >70 years old

4. What is your phone number

.....

5. Where is the city/district and province of the farm that you work?

.....

6. Are you a local resident here?

- a. Yes, I am a local resident
- b. No, I am a comer

7. Are you active in community organization in your place (part of head/representative/public figure in your place)?

- a. Yes
- b. No
- c. Other

8. Where do you live now?

- a. In the farm
 - b. Near the farm
 - c. Faraway from the farm
 - d. Other
9. What is your motivation to become chicken farmers?

.....

10. Is this your main or side business?
- a. Main business
 - b. Side business
11. How do you know about the Ciomas partnership program?
- a. From family
 - b. Friends
 - c. Neighbor
 - d. Chicken farmers community
 - e. Other chicken farmers
 - f. Internet
 - g. News
 - h. Other
12. How long have you joined as a Ciomas' partner?
- a. <1 year
 - b. 1-3 years
 - c. 3-5 years
 - d. 5-10 years
 - e. 10-20 years
 - f. >20 years
 - g. Other

13. When was the first year you joined Ciomas partner

.....

14. Have you ever joined any other partnership before joining the Ciomas partnership?
- a. Yes
 - b. I was an independent farmer before
 - c. I was not a farmer before
15. What are the reasons you chose to join Ciomas as a partner? (Including reasons why you moved, if previously you are at any other partnership)

.....

SECTION 3 – Partnership Procedure

- 1. The first time you wanted to join the Ciomas partnership, did you get clear information about the procedures for selecting partners?
 - a. Yes
 - b. No
- 2. What are the requirements/criteria that you must meet to be able to join Ciomas?

- ☐ Minimum age 18 years
 - ☐ Gender must be male or female
 - ☐ Must be local residents
 - ☐ Open to transmigrants / newcomers
 - ☐ Is a figure in the local area
 - ☐ Have references from other partners
 - ☐ Behave honestly and with high commitment
 - ☐ Meet the criteria for the plasma application form from Ciomas
 - ☐ Have road access to the house area
 - ☐ Have permission and legality to open a house from local authorities (RT/RW and PEMDA)
 - ☐ Have clear access to or sources of funds
3. What obstacles have you experienced when you wanted to join Ciomas? (for example related to land, Environmental impact assessment, permits and so on)
 - ☐ Land
 - ☐ Permit (including Environmental impact assessment)
 - ☐ Capital
 - ☐ Has no references
 - ☐ There are no obstacles
 4. How do you overcome these obstacles?
 - ☐ Supervised by the Ciomas Team
 - ☐ Provided assistance with access to capital or loans
 - ☐ Consult other Ciomas partners
 - ☐ Join the farmers community
 - ☐ Not relevant (No obstacles)
 5. When you are accepted and agree to become Ciomas' partner, is there a clear and legally protected document of cooperation, which includes profit sharing rules?
 - a. Yes
 - b. No
 6. Do you have a copy, copy, or duplicate of the cooperation document?
 - a. Yes
 - b. No
 - c. Not relevant (No obstacles)
 7. Do you, as Ciomas' partners, understand the revenue sharing rules agreed between partners and Ciomas?
 - a. Yes
 - b. No
 8. At the time of signing the contract, did you receive a full explanation from Ciomas, including the *sapronak* price and the chicken harvest price?
 - a. Yes
 - b. No
 9. Does Ciomas provide an explanation when a partner experiences a production failure?
 - a. Yes
 - b. No
 10. Does the partner have insurance that can cover the partner's losses as a contract farmer?
 - a. Yes
 - b. No
 11. Does the Ciomas partnership team always provide and explain in detail and transparently the results of the Performance Index (IP) assessment for you as Ciomas partners?
 - a. Yes
 - b. No
 12. How are the results of your last IP in 2019 compared to the previous IP?

- a. Higher
 - b. About the same
 - c. Lower
 - d. Cannot recall
13. What are the results of your latest IP in 2019?
- a. Above standard
 - b. Standard
 - c. Below standard
 - d. Cannot recall
14. Do you know how to calculate the Performance Index (IP) as a Ciomas partner?
- a. Yes
 - b. No
15. What products and services does Ciomas provide to you as Ciomas' partners?
- ☐ OVK (Medicine, Vaccine, Chemical)
 - ☐ DOC (one-day-old chicks)
 - ☐ Feed
 - ☐ Veterinarian
 - ☐ Technical support
 - ☐ Extension service
 - ☐ Access funds
 - ☐ Not relevant (No product and/or service)
16. The level of satisfaction with the services provided

	Not satisfied	Less satisfied	Neutral	Satisfied	Very satisfied	Didn't receive this service
OVK						
DOC						
Feed						
Veterinarian						
Technical support						
Extension service						
Access funds						
Other service						

17. What information does the Ciomas team usually provide during extension service or visits?
- ☐ Implementation of good chicken management (in relation to animal welfare)
 - ☐ Availability of sufficient number of feed/drinking containers
 - ☐ Feeding program
 - ☐ Water quality
 - ☐ Feed contamination
 - ☐ ADG (Average Daily Gain)

- ☐ FCR (Feed Conversion Ratio)
 - ☐ MR (Mortality Rate)
 - ☐ Chicken health indicator
 - ☐ The number of chickens that were injured
 - ☐ Number of chickens with broken wings
 - ☐ Number of sick chickens
 - ☐ Good or bad conditions for cleanliness of the house
 - ☐ Sanitary feasibility
 - ☐ Availability of clean water
 - ☐ The number of heat stress (overheating) or panting (tight) chickens then die due to hot conditions
 - ☐ Not relevant (No extension services/visits)
18. What things are being supervised/inspecting/evaluating causes/monitoring from Ciomas regarding each of the following:
- ☐ Implementation of good chicken management (in relation to animal welfare)
 - ☐ Availability of sufficient number of feed/drinking containers
 - ☐ Feeding program
 - ☐ Water quality
 - ☐ Feed contamination
 - ☐ ADG (Average Daily Gain)
 - ☐ FCR (Feed Conversion Ratio)
 - ☐ MR (Mortality Rate)
 - ☐ Chicken health indicator
 - ☐ The number of chickens that were injured
 - ☐ Number of chickens with broken wings
 - ☐ Number of sick chickens
 - ☐ Good or bad conditions for cleanliness of the house
 - ☐ Sanitary feasibility
 - ☐ Availability of clean water
 - ☐ The number of heat stress (overheating) or panting (tight) chickens then die due to hot conditions
 - ☐ Not relevant (No extension services/visits)
19. How many times did a PPL (Field Extension Officer) from Ciomas contact you in 2019?
- Note: PPL are workers from Ciomas who usually collect, make Chicken Daily Record Reports (Chicken Condition Reports, Harvest Ready Reports, Recording Data and provide directions during visits)
- a. 1 time a week
 - b. > 1 time a week
 - c. 1 time a month
 - d. 2 times a month
 - e. > 2 times a month
 - f. Never been contacted
 - g. No idea
20. How many times did the PPL (Field Extension Officer) from Ciomas visit your house?
- a. 1 time a week
 - b. > 1 time a week
 - c. 1 time a month
 - d. 2 times a month
 - e. > 2 times a month
 - f. Never been contacted
 - g. No idea

21. How many times has TS (Technical Support) or CoPPL (PPL Coordinator) from Ciomas visited you?

Note: CoPPL is a Ciomas worker who usually helps solve problems that occur to contract farmers. previously known as TS (Technical Support)

- a. 1 time a week
 - b. > 1 time a week
 - c. 1 time a month
 - d. 2 times a month
 - e. > 2 times a month
 - f. Never been contacted
 - g. No idea
22. How many times per month do the veterinarians from the Ciomas team visit your house?
- a. 1 time a week
 - b. > 1 time a week
 - c. 1 time a month
 - d. 2 times a month
 - e. > 2 times a month
 - f. Never been contacted

SECTION 4 – Wellbeing Distribution

1. Have you experienced an increase in income since joining as Ciomas' partner?
- a. Yes, an increase of <50%
 - b. Yes, an increase of >50%
 - c. Not much/same from the situation before becoming Ciomas' partner
 - d. No, a decrease of <50%
 - e. No, a decrease of >50%
2. Are you involved/work in the farm?
- a. Yes, fully involved
 - b. Sometimes
 - c. Not involved
3. How long do you work in your farm every day?
- a. <2 hours
 - b. 2-4 hours
 - c. 4-6 hours
 - d. 6-8 hours
 - e. 8-12 hours
 - f. >12 hours
 - g. Not relevant (for partner who is not involved)
4. Are you married?
- a. Yes, and I have children
 - b. Yes, but I do not have children yet
 - c. No
5. How many children do you have in your family?
- a. 1
 - b. 2
 - c. 3

- d. >3
 - e. Not yet
 - f. I am not married
6. Is the income from the Ciomas partnership sufficient to meet the needs of you in 2019, including education for children until college
- a. No
 - b. Enough
 - c. Over
 - d. Not relevant (not married or do not have children yet)

SECTION 5 – Fulfillment of Basic Needs

1. In a day, what kind of food does your family eat?
 - ☐ Rice, potato, corn, sweet potato (carbohydrate)
 - ☐ Tempeh, tofu, egg, meat (protein)
 - ☐ Vegetables
 - ☐ Fruit
 - ☐ Instant noodles
 - ☐ Balanced meal (*4 sehat 5 sempurna*)
 - ☐ Other
2. How is the composition of your family's daily meals?
 - a. The portion of carbohydrates is more dominant than protein, vegetables and fruit
 - b. The portion of carbohydrates, protein, vegetables and fruit are equal
 - c. Only carbohydrates and vegetables
 - d. Only carbohydrates and protein
 - e. Instant noodles
3. What is the condition of the proper place for bathing, washing, toilet (MCK) in the place of residence or in the cage area?
 - ☐ Does not pollute drinking water sources (wells and water pumps)
 - ☐ Manure collecting holes is away from drinking water sources
 - ☐ It is odorless and the feces cannot be reached by insects or mice
 - ☐ Adequate size and does not contaminate the surrounding soil
 - ☐ Easy to clean and safe to use
 - ☐ Equipped with protective walls and roofs
 - ☐ Waterproof walls
 - ☐ Availability of lighting
 - ☐ Waterproof floor
 - ☐ Good ventilation
 - ☐ Availability of water and cleaning equipment
 - ☐ Availability of septic tank

SECTION 6 – Farm Profile

1. What is the ownership status of the land that you use?
 - a. My own land
 - b. Family's

- c. Rent
- 2. What is the ownership status of the farm?
 - a. My own farm
 - b. Family's
 - c. Rent
- 3. Did you get permission from the head of the community (e.g. RT / RW and Kades) to operate this farm?
 - a. Yes
 - b. No
- 4. What is the function of the land before you made it into a farm?
 - a. Unproductive land
 - b. Field/garden
 - c. Forest
 - d. Other
- 5. What is the type of your farm?
 - a. Open house
 - b. Complete closed-house
 - c. Incomplete closed-house
- 6. How many hencoop do you have?

- 7. Can you specify its size?

- 8. In total, how many chickens do you have?

- 9. Where is the source of water that you use for the farm's operation?
 - ☐ Well with ≥ 100 m depth
 - ☐ Well with < 100 m depth
 - ☐ River
 - ☐ PAM
 - ☐ Mountain
 - ☐ Boreholes
 - ☐ Dug well
 - ☐ Rainwater
 - ☐ Other
- 10. How is the condition of the water?
 - ☐ Transparent
 - ☐ Colorless and does not contain hazardous material
 - ☐ Tasteless
 - ☐ Normal temperature
 - ☐ TDS under 1000 for clean water and below 100 for drinking water
 - ☐ pH : 6-8

- ☐ The harness of water is not over 500mg/l
 - ☐ Contains nitrite and nitrate
 - ☐ Contains lead (Pb)
 - ☐ Not contaminated with *E.coli*
11. Is your water need for daily activity and hencoop fulfilled?
- a. Yes
 - b. No, I buy additional water
 - c. No, but I have a rainwater
12. How frequent are the lights out during the year (in 2019)?
- a. <2
 - b. 2-5
 - c. 5-10
 - d. >10
 - e. Never

SECTION 7 – Chicken Wellbeing

1. What do you do to ensure about the chicken's wellbeing?
- ☐ The hencoop is designed to have a good ventilation and circulation
 - ☐ The hencoop is designed to have a water access
 - ☐ The hencoop is designed with the consideration of land contour
 - ☐ The hencoop is designed with the consideration of chicken's convenience
 - ☐ The hencoop is equipped with facilities to prevent, avoid, or manage the natural disasters (feed warehouse and water tank)
 - ☐ The hencoop is equipped with generator
 - ☐ Ventilation hole can be open in emergency
 - ☐ Partner have a lamp powered with battery for emergency
 - ☐ Equipped with fire extinguisher
 - ☐ Equipped with temperature and humidity control and monitored regularly
 - ☐ Equipped with blower
 - ☐ Equipped with exhaust fan
 - ☐ Equipped with light barrier (netting net)
 - ☐ Floor type : full slatted floor plastic
 - ☐ Floor type : full slatted floor non plastic
 - ☐ Floor type : combination of slatted floor and litter
 - ☐ Hencoop is always cleaned after harvesting
 - ☐ The litter is inverted everyday
 - ☐ Change the litter once a week
 - ☐ Spraying disinfectant when cleaning the hencoop
 - ☐ The number of water and feed container is as much as the chicken
 - ☐ Adjusting the height of water and feed container based on the chicken's growth
 - ☐ Clean and disinfect the water and feed's container when cleaning the hencoop
 - ☐ Providing an appropriate feed and water based on chicken needs
 - ☐ Provide the water and feed on time

- ☐ The hencoop is equipped with heater
 - ☐ Insulating the hencoop's wall
 - ☐ Another ventilation system besides fan and blower
 - ☐ Adjusting the population of chicken
 - ☐ Using fogger
 - ☐ Wider the hencoop's partition
 - ☐ Arranging the TMA's distribution
 - ☐ Tightening the biosecurity
 - ☐ Using the feed stimulus like crumble form for pellets
 - ☐ Keeping the optimum criteria of nutrition formulation
 - ☐ Giving vaccine on time
 - ☐ Clean the wall and partition when cleaning the hencoop
 - ☐ Clean the equipment using disinfectant when cleaning the hencoop
 - ☐ Adjusting the stocking density with open house hencoop style (8-14 chicken/m²)
 - ☐ Adjusting the stocking density with uncompleted closed house hencoop style (12-16 chicken/m²)
 - ☐ Adjusting the stocking density with completed closed house hencoop style (17-20 chicken/m²)
 - ☐ Clean the hencoop every week
2. Are the practices above followed the Ciomas' rule?
- a. Fully followed
 - b. >75% followed, the rest is my initiative
 - c. 50-75% followed, the rest is my initiative
 - d. 25-50% followed, the rest is my initiative
 - e. <25% followed, the rest is my initiative
 - f. Fully my initiative
3. How many times do you control the humidity and temperature?
- a. Every day
 - b. 2-3 times in a month
 - c. 3-4 times in a month
 - d. <3 times a month
 - e. I did not do it
 - f. Other
4. What are your usual findings about your chicken's condition?
- ☐ No wound on the comb
 - ☐ There is a wound in the comb
 - ☐ There is a wound on the outer of the comb
 - ☐ No wound on the outer of the comb
 - ☐ There is a blue spot on the comb
 - ☐ No blue spot on the comb
 - ☐ Damaged feather
 - ☐ The feather is not damaged
 - ☐ The chicken is doing dust bathing
 - ☐ The chicken is not doing duct bathing
 - ☐ The chicken feather is dirty

- ☐ All the chicken's feather is not dirty
 - ☐ The chicken is out of breath
 - ☐ The chicken is not out of breath
 - ☐ The chicken is closed to each other because of cold
 - ☐ The chicken is not closed to each other because of cold
 - ☐ Cannibalism behavior
 - ☐ No cannibalism behavior
 - ☐ Death caused by heat stress
 - ☐ No death caused by heat stress
 - ☐ Death because the fan does not working
 - ☐ No death because the fan does not working
 - ☐ Screamed chicken
 - ☐ No screamed chicken
 - ☐ Other
5. Do you have a HACCP certificate or something like that?
 - a. Yes
 - b. No
 - c. Other
 6. What biosecurity or procedure that is one by you to keep the chicken's health?
 - ☐ Keeping the cleanliness of the hencoop
 - ☐ Keep the ventilation of the hencoop
 - ☐ Wear a clean shoes
 - ☐ Vaccine
 - ☐ Controlling the traffic
 - ☐ Controlling the feed
 - ☐ Controlling the water
 - ☐ Controlling the waste (waste of production and dead chicken)
 - ☐ Other
 7. How often do you do a chicken health inspection to check for sick, injured, or dead chickens?
 - a. Once a day
 - b. >1 times a day
 - c. Once a week
 - d. Twice a week
 - e. 3 times a week
 - f. Every time when there is an inspection from Ciomas
 - g. Other

SECTION 8 – Extension Service and Motivation

1. Do you know whether Ciomas have ever conducted or frequently conducted extension services?
 - a. Yes
 - b. No
2. Have you ever participated in the extension services conducted by Ciomas? If so, then how many times a year?

- a. Yes, always participated every time an extension service is conducted
- b. Not always, but participated more than 8 times in a year
- c. Not always, but participated 5-8 times in a year
- d. Not always, but participated 2-4 times in a year
- e. Not always, but participated once in a year
- f. Never participated
- g. Not relevant (Extension services never conducted)

3. What topics did the Ciomas team give on extension services?

- ☐ How to maintain chicken hygiene and health
- ☐ How to build the ideal farm
- ☐ How to maintain food and water access to avoid chicken hunger and thirst
- ☐ How to clean slatted flooring to always maintain clean litter condition and advice on frequency to clean slatted flooring/litter
- ☐ How to maintain the ideal temperature and humidity in the farm
- ☐ How to minimise heat stress incidents through blower addition, turning on fans, widen partitions, managing water and food consumption, managing TAM distribution, adding more TAM, giving additional nutrition, electrolyte supply and vitamin, strengthen biosecurity
- ☐ How to resolve risks that can affect chicken health and welfare
- ☐ How to avoid and resolve chicken cannibalism or pecking each other
- ☐ Procedures to ensure chicken health through strict biosecurity, illness prevention programmes, and OVK (medicine, vaccine, chemical)
- ☐ How to take care of chickens through maintaining animal welfare
- ☐ How to handle chicken sales losses
- ☐ Not relevant (Extension services never conducted)
- ☐ Other

4. Are the topics given suitable to your needs?

	Not suitable	Less suitable	Neutral	Suitable	Very suitable	Not relevant (Extension Services never conducted)
How to maintain chicken hygiene and health						
How to build the ideal farm						
How to maintain food and water access to avoid chicken hunger						

	Not suitable	Less suitable	Neutral	Suitable	Very suitable	Not relevant (Extension Services never conducted)
and thirst						
How to clean slatted flooring to always maintain clean litter condition and advice on frequency to clean slatted flooring/litter						
How to maintain the ideal temperature and humidity in the farm						
How to minimise heat stress incidents through blower addition, turning on fans, widen partitions, managing water and food consumption, managing TAM distribution, adding more TAM, giving additional nutrition, electrolyte supply and vitamin, strengthen biosecurity						
How to resolve risks that can affect chicken health and welfare						
How to avoid and resolve chicken						

	Not suitable	Less suitable	Neutral	Suitable	Very suitable	Not relevant (Extension Services never conducted)
cannibalism or pecking each other						
Procedures to ensure chicken health through strict biosecurity, illness prevention programmes, and OVK (medicine, vaccine, chemical)						
How to take care of chickens through maintaining animal welfare						
How to handle chicken sales losses						
Other topics						

5. What topics from Ciomas team's extension services did you implement?

- ☐ How to maintain chicken hygiene and health
- ☐ How to build the ideal farm
- ☐ How to maintain food and water access to avoid chicken hunger and thirst
- ☐ How to clean slatted flooring to always maintain clean litter condition and advice on frequency to clean slatted flooring/litter
- ☐ How to maintain the ideal temperature and humidity in the farm
- ☐ How to minimise heat stress incidents through blower addition, turning on fans, widen partitions, managing water and food consumption, managing TAM distribution, adding more TAM, giving additional nutrition, electrolyte supply and vitamin, strengthen biosecurity
- ☐ How to resolve risks that can affect chicken health and welfare
- ☐ How to avoid and resolve chicken cannibalism or pecking each other
- ☐ Procedures to ensure chicken health through strict biosecurity, illness prevention programmes, and OVK (medicine, vaccine, chemical)
- ☐ How to take care of chickens through maintaining animal welfare
- ☐ How to handle chicken sales losses

- ☐ Not relevant (Extension services never conducted)
 - ☐ Other
6. If you haven't implemented any of them yet, what are the obstacles that lead you to not implement them yet?
 - ☐ No funds
 - ☐ No facilities needed
 - ☐ Minimal understanding
 - ☐ Does not seem they would help raise IP (Performance Index)
 - ☐ No continued guidance from Ciomas Team
 - ☐ Have already implemented them
 - ☐ Not relevant (Extension services never conducted)
 7. Based on your knowledge, has Ciomas ever evaluate if you have or have not implemented the information or guidance received for the extension services?
 - a. Yes, they have
 - b. No, they have not
 - c. Not relevant (Extension services never conducted)
 8. Was there any comparison study/sharing session/information exchange activity between contract farmers in order to share contract farmers' knowledge on managing and building farms?
 - a. Yes
 - b. No
 9. Did you attend the activity if it was held?
 - a. Always attended
 - b. Sometimes attended
 - c. Rarely attended
 - d. Never attended
 - e. Not relevant (Sharing sessions never held)
 10. Was the activity helpful to you in improving farm management?
 - a. Yes
 - b. No
 - c. Not relevant (Sharing sessions never held)
 11. Was there any knowledge sharing/information/transfer knowledge held by Ciomas in order to share knowledge to contract farmers on how to manage and build farms?
 - a. Yes
 - b. No
 - c. Not relevant (Sessions never held)
 12. Did you attend the activity if it was held?
 - a. Always attended
 - b. Sometimes attended
 - c. Rarely attended
 - d. Never attended
 - e. Not relevant (Sessions never held)
 13. Was the activity helpful to you in improving farm management?
 - a. Yes
 - b. No

- c. Not relevant (Sessions never held)
- 14. Do you have any intention on switching to closed-house farm?
 - a. Yes
 - b. No
 - c. Not relevant (Already have a closed-house farm)
- 15. According to you, what are the obstacles on switching to closed-house farm?
 - ☐ Economy factor
 - ☐ Supporting facility availability
 - ☐ Difficult to maintain
 - ☐ Not relevant (Already have a closed-house farm)
 - ☐ Other
- 16. Based on your knowledge, is there any help from Ciomas Team in funding facilitation to open a closed-house farm?
 - a. Yes
 - b. No
 - c. What is your knowledge level on the procedure and benefit of closed-house farm?
 - d. Knowledgeable enough on the procedure and benefit of a closed-house farm
 - e. Does not know the procedure to open a closed-house farm
 - f. Does not know the procedure and benefit of closed-house farm
 - g. I do not know
- 17. Are you helped by any worker in managing your farm?
 - a. Yes, all the workers are local people
 - b. Yes, >75% of the workers are local people
 - c. Yes, 50-75% of the workers are local people
 - d. Yes, 25-50% of the workers are local people
 - e. Yes, <25% of the workers are local people
 - f. Yes, all the workers are migrants
 - g. No worker, work alone
 - h. No worker, helped by family

SECTION 9 – Workers

- 1. What are the requirements to become a worker at your place?
 - ☐ 18 years old minimum
 - ☐ No minimum age requirement
 - ☐ Minimum high school education level
 - ☐ There are no educational requirements
 - ☐ local residents
 - ☐ There is no requirement of regional origin
 - ☐ Male worker gender
 - ☐ Female worker gender
 - ☐ There is no gender requirement
- 2. Are the requirements above a suggestion from the Ciomas Team?
 - a. Yes
 - b. No

3. What personal documents do you request from the worker that you ask for?
 - ☐ ID card
 - ☐ Family card
 - ☐ Certificate of permission of work by parents
 - ☐ Certificate of birth
 - ☐ Diploma
 - ☐ Nothing
 - ☐ Other
4. How many workers help you in raising livestock chickens?
 - a. < 5 people
 - b. 5 – 10 people
 - c. 10 – 15 people
 - d. 15 – 20 people
 - e. > 20 people
5. How many male workers?
 - a. No male workers
 - b. < 5 people
 - c. 5 – 10 people
 - d. 10 – 15 people
 - e. 15 – 20 people
 - f. > 20 people
6. How many female workers?
 - a. No female workers
 - b. < 5 people
 - c. 5 – 10 people
 - d. 10 – 15 people
 - e. 15 – 20 people
 - f. > 20 people
7. How many workers left in 2019?
 - a. All workers quit
 - b. > 75% of workers quit
 - c. 50-75% of workers quit
 - d. 25-50% of workers quit
 - e. <25% of workers quit
 - f. None of the workers quit
 - g. I do not know
8. If the worker stops, do you know the reason?
 - ☐ Salary do not match
 - ☐ Prefer another job
 - ☐ Do not like the work
 - ☐ I do not know
 - ☐ Other
9. If there are workers who are migrants, how do you help them to adapt to their surroundings?
 - ☐ Work with local workers
 - ☐ Live among local residents

- ☐ Not relevant (Please select this answer, if none of the workers are migrants)
- ☐ Other

10. Are there any workers on your farm who are less than 18 years old? If so, please state how many.
- a. Not a single one
 - b. < 3 person
 - c. 3 – 5 people
 - d. 5 – 10 people
 - e. 10 – 15 people
 - f. > 15 people

SECTION 10 – Child Labour Practices

1. How old is the youngest worker on your farm?
 - a. < 12 years old
 - b. 12 – 15 years old
 - c. 16 – 17 years old
2. For workers under 18 years of age, what are the average hours worked in 1 day?
 - a. < 2 hours
 - b. 2 – 4 hours
 - c. 4 – 6 hours
 - d. 6 – 8 hours
 - e. > 8 hours
3. For workers under 18 years of age, how many days do you work on average per week?
 - a. Everyday
 - b. 4 – 6 days a week
 - c. 2 – 3 days a week
 - d. 1 day a week
4. How many workers under 18 years of age attend primary school? (If NO write "0" | If DON'T KNOW, write "N / A" | If NOT STUDYING AT SCHOOL write "Not going to school")

.....

5. How many workers under 18 years of age attend junior high school level? (If NO write "0" | If DON'T KNOW, write "N / A" | If NOT STUDYING AT SCHOOL write "Not going to school")

.....

6. How many workers under 18 years of age attend senior high school level? (If NO write "0" | If DON'T KNOW, write "N / A" | If NOT STUDYING AT SCHOOL write "Not going to school")

.....

7. How many workers under the age of 18 are not in school? (If NO write "0" | If DON'T KNOW, write "N / A" | If NOT STUDYING AT SCHOOL write "Not going to school")

.....

8. If not going to school, why?
- ☐ Regarding cost
 - ☐ Not interested
 - ☐ I do not know
 - ☐ Irrelevant (all workers under age are going to school)
9. If they are going to school, when do child laborers work?
- a. Before school (morning / early morning)
 - b. After school (noon to evening)
 - c. Afternoon to night
 - d. I do not know
 - e. Not relevant (Child labor does not go to school)
10. Have there ever been cases of violence between adult workers and child workers (aged under 18 years)?
- a. Yes
 - b. No
11. If yes, what did you do to solve the cases of violence that occurred?
- ☐ The perpetrator was expelled
 - ☐ The victim is given treatment
 - ☐ Create new rules
 - ☐ Submit cases to the authorities
 - ☐ Not relevant (No violence against child labor)
12. Is there a special relationship between you and the child workers so that they can work at your place?
- a. Yes, a family connection
 - b. Yes, college relationship with their parents
 - c. No special relationship
 - d. Other

SECTION 11 – Remuneration and Working Hours for Workers

1. How do you provide salary to full-time workers?
- a. Daily salary
 - b. Weekly salary
 - c. Monthly salary
 - d. Salary per harvest cycle
 - e. Percentage of the profit
2. How do you pay salary to part-time workers (part time / seasonal)?
- a. Daily salary
 - b. Weekly salary
 - c. Salary per harvest cycle
 - d. Piece rate salary (Workers only work for certain hours)

3. Are there any bonuses for workers?
 - a. Yes
 - b. No
4. Is the percentage of profit sharing or bonus being shared openly with employees?
 - a. Yes
 - b. No
 - c. Irrelevant (No profit sharing or bonus)
5. Approximately what is the average monthly salary that you give to operator / partner workers?
 - a. < Rp. 1.000.000
 - b. Rp. 1.000.000 - Rp. 1.500.000
 - c. Rp. 1.500.000 - Rp. 2.000.000
 - d. Rp. 2.000.000 - Rp. 3.000.000
 - e. Rp. 3.000.000 - Rp. 5.000.000
 - f. > Rp. 5.000.000
 - g. In accordance with the Regional UMR
 - h. Irrelevant (Salary are not in the form of wages)
6. Are the salary paid for male and female workers the same for equal work?
 - a. Yes, equal
 - b. Male worker salary is lower than female worker salary
 - c. Male worker salary is higher than female worker salary
 - d. Irrelevant, all workers are male
 - e. Irrelevant, all workers are female
 - f. I do not know
7. Apart from salaries and bonuses (if any), what other benefits are given to workers?
 - ☐ Nothing
 - ☐ Groceries
 - ☐ Residence
 - ☐ School fees
 - ☐ Religious Holiday Allowance
 - ☐ Provision of food at work
 - ☐ Meal allowance at work place (e.g.in the form of money)
 - ☐ Other
8. Is there a written work contract?
 - a. Yes
 - b. No
9. Does the worker have a copy of the contract?
 - a. Yes
 - b. No
 - c. Irrelevant (no contract)
10. What are the average hours of work each day that are agreed upon both verbally and in writing with the workers on your farm?
 - a. < 2 hours
 - b. 2 – 4 hours
 - c. 4 – 6 hours

- d. 6 – 8 hours
 - e. 8 – 12 hours
 - f. > 12 hours
11. Do they usually work beyond the agreed hours of work in advance or on a contract basis?
 - a. Never exceed the agreed working hours
 - b. Often exceeds the agreed working hours
 - c. Rarely or sometimes more than the agreed working hours
 12. Do workers work more than an average of 8 hours per day or 48 hours per week?
 - a. Yes
 - b. No
 13. Are overtime pay always given according to the extra hours they worked?
 - a. Yes
 - b. No

SECTION 12 - Occupational Health and Safety (HSE) for Workers

1. Do you have rules for occupational health and safety - HSE (for example, including the obligation to wear PPE)?
 - a. Yes
 - b. No
2. How do you maintain the health and safety of workers / operators in the house area?
 - ☐ There is a first aid kit / medicine box
 - ☐ Provide Personal Protective Equipment (masks, gloves, boots, etc.)
 - ☐ There is training for occupational safety and health
 - ☐ Always keep an eye on any potentially dangerous areas of the enclosure and treat them immediately before they cause accidents or are dangerous to the health of workers
 - ☐ There is an Occupational Health and Safety system
 - ☐ There is a special committee for occupational health and safety
 - ☐ There is a fire alarm
 - ☐ Provide APAR (light fire extinguisher)
 - ☐ There is an alarm for power failure
3. If there is training on occupational health and safety (HSE) for workers, how many times were they held in 2019?
 - a. No training
 - b. Once a year
 - c. Two times a year
 - d. > two times a year
4. How many hours does the training take on average?
 - a. < 2 hours
 - b. 2 – 4 hours
 - c. > 4 hours
 - d. Irrelevant (no training)
5. When you go to the house, how many workers wear the Personal Protective Equipment (PPE) that has been provided?
 - a. All workers use the PPE provided

- b. < 75% workers use the PPE provided
 - c. 50 - 75% workers use the PPE provided
 - d. 25 - 50% workers use the PPE provided
 - e. < 25% workers use the PPE provided
 - f. All workers not wearing the PPE provided
 - g. Irrelevant (No PPE provided)
6. For workers who do not use, what actions to take?
- ☐ Nothing
 - ☐ Reprimanded
 - ☐ Sanctioned
7. How are workers informed about the position / location of emergency equipment / supplies (first aid kit / medicines, APAR / light fire extinguishers) or what to do if an incident occurs in the farm area?
- ☐ From training
 - ☐ When starting work
 - ☐ Through special workers for HSE
 - ☐ Not informed
8. Are workers also well informed about procedures for using the emergency equipment / supplies?
- a. Yes, periodically informed
 - b. Once informed
 - c. Never informed
9. Are the HSE information was informed by special workers for HSE or just being told by the contract farmer?
- ☐ Special Workers
 - ☐ Contract farmers / owner
 - ☐ PPL / CoPPL Ciomas
 - ☐ employment agencies
 - ☐ Never being informed
10. Do you do routine health checks for workers?
- a. Once a year
 - b. 2 times a year
 - c. 3 times a year
 - d. 4 – 5 times a year
 - e. > 5 times a year
 - f. No routine health checks
11. How is the work accident protection mechanism for workers at your place? (for large contract farmers)
- ☐ BPJS of Employment
 - ☐ BPJS Health
 - ☐ Covered by the company (Reimburse) in full
 - ☐ Partially covered by the company (Reimburse)

- ☐ Health insurance and work accidents
 - ☐ Given a special wage beyond the basic wage for medical / health care
 - ☐ There is no special mechanism / service
 - ☐ Irrelevant (not a large contract farmer)
12. If the work accident treatment is partially covered by the company (reimbursement), is there a certain maximum amount?

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13. Have there been any incidents of work accidents on your farm during 2019?
- a. Yes
 - b. No
 - c. I do not know
14. If so, how many times have there been incidents of work accidents in your farm area during 2019? (If the previous answer is "Never" or "I do not Know", please fill in "N / A")

.....

SECTION 13 - Number of Work Accidents

1. What is the approximate number of FATAL injuries that will occur in 2019? (If there is and know, fill in the options "Other" or "Other") note: Fatal accidents are accidents that cause death within 24 hours after the accident
- a. No fatal injuries
 - b. I do not know
2. If there is a FATAL injuries, do you know the cause? (please fill "N/A" if you do not know)
-
3. What is the approximate number of SEVERE injuries that occurred in 2019? (If there is and know, fill in the options "Other" or "Other")
- Note: A severe injury is an accident that causes a loss of work days and is suspected to cause physical and / or spiritual disability which will interfere with his work duties
- a. No severe injuries
 - b. I do not know
4. If there is a SEVERE injuries, do you know the cause? (please fill "N/A" if you do not know)
-
5. What is the approximate number of MINOR injuries that occurred in 2019? (If there is and know, fill in the options "Other" or "Other")
- Note: A minor injury is an accident that causes a loss of work days and is suspected to cause physical and / or spiritual disability which will interfere with his work duties
- a. No severe injuries
 - b. I do not know
6. If there is a MINOR injuries, do you know the cause? (please fill "N/A" if you do not know)

-
7. What is the approximate number of SEVERE injuries that occurred in 2019? (If there is and know, fill in the options "Other" or "Other")
Note: A severe injury is an accident that causes a loss of work days and is suspected to cause physical and / or spiritual disability which will interfere with his work duties
- No severe injuries
 - I do not know
8. If there is a SEVERE injuries, do you know the cause? (please fill "N/A" if you do not know)

-
9. What is the approximate number of NEAR MISS injuries that occurred in 2019? (If there is and know, fill in the options "Other" or "Other")
Note: A near miss injury is an accident that causes a loss of work days and is suspected to cause physical and / or spiritual disability which will interfere with his work duties
- No severe injuries
 - I do not know
10. If there is a NEAR MISS injuries, do you know the cause? (please fill "N/A" if you do not know)

.....

SECTION 14 - Freedom of Association and Collective Bargaining for Workers

- Are any workers on this farm joining the trade / labor union?
 - Yes
 - No
 - I do not know
- If not, why?
 - Clueless about labor unions
 - They do not need labor unions
 - Not recommended
 - There is already a community
 - I do not know
 - Not relevant (Please select this answer if there is a union)
- If there is a trade / labor union, will you know as a farm owner?
 - Yes
 - No
 - Not relevant (Please select this answer if there is no labor union)
- If a worker joins a trade union, please state the name of the trade union? (PLEASE FILL IN "OTHER" SELECTION)
 - I do not know
 - Not relevant (Please select this answer if there is no union)
 - Others ...
- If there are workers who join the union, please state the role of your workers in the union?
 - Passive member
 - Active member

- c. Management
 - d. I do not know
 - e. Irrelevant (Please select this answer if there is no union)
6. If so, how many workers are part of the union?
- a. > 75% of total workers
 - b. 50 - 75% of total workers
 - c. 25 - 50% of total workers
 - d. < 25% of total workers
 - e. There is no union
 - f. I do not know
7. What activities do labor unions do?

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SECTION 15 - Community Relations

1. How did the local community respond when you joined the Ciomas Partnership?
 - a. Good
 - b. Not so good
 - c. Not good
2. What is your contribution to the local people?
 - ☐ Provide free chicken donations to the community
 - ☐ It becomes easy to buy chickens so the residents do not need to go far because there is Japfa in the neighborhood
 - ☐ Providing material assistance for road repairs
 - ☐ Serving the sale of manure for local residents
 - ☐ Providing jobs to local residents
 - ☐ Buy materials from local residents for the manufacture or need of a house
 - ☐ Opening business opportunities around the cage (for example, opening a shop, rented place)
 - ☐ Educational program about healthy living and balanced nutrition for families
 - ☐ Build public toilets for residents
 - ☐ Build houses of worship / donations for houses of worship
 - ☐ Other...
3. How often do you hold discussions with community leaders or residents in your farm area?
 - a. Often, more than 2 times a week
 - b. Once a week minimum
 - c. Once a month minimum
 - d. Once a year minimum
 - e. Never
4. Have you ever received complaints or rejection from local residents while doing activities at the stable as Ciomas' partners?
 - ☐ Flies or odor problems
 - ☐ Polluted environment
 - ☐ Noisy because the harvest time at night
 - ☐ The roads are damaged

- ☐ Do not employ local residents
- ☐ Contract farmers and / or workers are migrants
- ☐ Land dispute
- ☐ Losing land for business
- ☐ TBC disease arises
- ☐ Malaria arises
- ☐ No complaints
- ☐ Other...

5. How disturbing is the above problem for the residents around your farm?

	Very annoying, cannot be tolerated	Quite annoying, but still tolerable	Not annoying at all	There are no issues related to this
Flies or odor problems				
Polluted environment				
Noisy because the harvest time at night				
The roads are damaged				
Do not employ local residents				
Contract farmers and / or workers are migrants				
Land dispute				
Losing land for business				
TBC disease arises				
Malaria arises				
No complaints				
Other issues				

6. In 2019, have you received complaints directly and / or through the head of local residents?

- a. Once, once a year
- b. Once, 2-3 times a year
- c. Once, 3 - 6 times a year
- d. Ever, > 6 times in 1 year
- e. No complaints

7. If there are complaints, how do contract farmers usually respond to the residents' complaints?

- ☐ Deliberative discussion
- ☐ Discussions with RT / RW or local community leaders
- ☐ Immediately act to eliminate the source of the complaint
- ☐ Discussion with Ciomas Team

- ☐ Not doing anything
 - ☐ No complaints
 - ☐ Other...
8. Are there any community leaders (highly respected local residents) in your area?
 - a. Yes
 - b. No
 9. Have you ever been harassed by thugs while on the farm?
 - a. Yes
 - b. No
 10. Have you ever been harassed by your trade union while on the farm?
 - a. Yes
 - b. No
 11. If so, what did you do to deal with the harassment from thugs or trade unions?

	Employ thugs / labor unions / youth organizations for loading and unloading feed	Give dues	Deliberate with thugs / labor unions / youth organizations	Consult with RT / RW or local community leaders	Consult with the Ciomas Team	No harassment	I do not know
Thugs							
Trade unions							

SECTION 16 - Contract Farmers' Satisfaction

1. My knowledge on chicken farm is better after partnering with Ciomas

	1	2	3	4	5	
Strongly disagree						Strongly agree

2. I am satisfied with Ciomas' service

	1	2	3	4	5	
Strongly disagree						Strongly agree

3. Ciomas team routinely or periodically asked for feedback/opinion on their service

	1	2	3	4	5	
Strongly disagree						Strongly agree

4. Is the amount of *Sapronak* (DOC, OVK, feed) delivered by Ciomas team always in accordance with the agreement?
 - a. Yes, in accordance

- b. Sometimes is not in accordance
 - c. Not in accordance
5. Is the *Sapronak* delivered mostly always on time?
- a. Yes, delivered on time
 - b. Sometimes not delivered on time
 - c. No
6. According to you, what are the positive things in Ciomas' partnership system and needs to be continued?
-
7. According to you, what are the things that are not yet available and things that already exist but needs improvement in Ciomas' current partnership system?
-
8. Will you recommend Ciomas' partnership programme to other people?
- a. Yes
 - b. No

Appendix C - WORKERS OF CONTRACT FARMERS SURVEY

This survey was conducted as a part of a social study, regarding the responses of workers from partner breeders (Chicken) from Japfa

We hope to get real input from you, so that we can do this study as well as possible to evaluate the chicken farming activities that we do.

We thank you very much for your time and willingness to participate in this survey

SECTION 2 – Respondent Profile

1. What is your name?

.....

2. What is your gender?

- a. Male
- b. Female

3. How old are you?

- a. < 18 years old
- b. 18-25 years old
- c. 26-35 years old
- d. 36-50 years old
- e. 51-60 years old
- f. 61-70 years old
- g. >70 years old

4. What is your phone number?

.....

5. What is your educational background?

- a. Elementary education
- b. Junior high school education
- c. Senior High school education
- d. Tertiary Education (College)
- e. No formal educational background

6. Where is the city/district and province of the farm that you work?

.....

7. Are you a part-time or full-time worker?

- a. Full-time
- b. Part-time

8. Is there any special relationship between you and the owner of the farm?

- a. Spouse
- b. Child

- c. Siblings
 - d. Aunt/Uncle
 - e. Cousins
 - f. Nephew/Niece
 - g. No family relationship
 - h. Other
9. Are you a local resident here?
- a. Yes, I am a local resident
 - b. No, I am a migrant
10. If you are a migrant, please inform us where you are from
-
11. Have you just moved here since working on this farm or have you been here since before it?
- a. Just moved since I am working in this farm
 - b. Already moved before
 - c. Not relevant (worker is a local resident)
12. How is the adaption process with local resident?
- a. Good, I can adapt easily
 - b. Not to good, there is a difficulties
 - c. Not good, very hard to adapt
 - d. Not relevant (worker is a local resident)
13. How can the owner of the farm help to adapt to the environment?
- ☐ Work together with local resident
 - ☐ Live between the local resident
 - ☐ Not relevant (worker is a local resident)
 - ☐ Other
14. How long have you been working on this farm?
- a. < 1 year
 - b. 1-3 year
 - c. 3-5 year
 - d. >5 year
15. What is your position in this farm?
- ☐ Farm head
 - ☐ Production's supervisor
 - ☐ Flock's Supervisor
 - ☐ Hencoop's operator
 - ☐ Security
 - ☐ Technician/Mechanics
 - ☐ Other
16. Can you give examples of what you do on a daily basis?
-
17. How many coops are you responsible for?

.....
18. How many chickens are you responsible for?

.....
19. What is your motivation to work here?

- ☐ I know the farm's owner
- ☐ Following my parents/spouse/relatives
- ☐ There is an ensure support
- ☐ Obtain a better income
- ☐ Other

20. What are the requirements when you want to work in this farm?

- ☐ At least 18 years old
- ☐ There is no age requirements
- ☐ At least senior high school educational background
- ☐ There is no educational requirements
- ☐ Local resident
- ☐ There is no requirement of regional origin
- ☐ Must be a male
- ☐ There is no gender requirement
- ☐ Other

21. When you apply to this farm, what kind of documents requested by the farm's owner?

- ☐ Identity card
- ☐ Family card
- ☐ Certificate by parents that stated their permission for you to work
- ☐ Birth certificate
- ☐ Diploma certificate
- ☐ None

22. Are there any workers below 18 years old in your farms? If there are any, please specify the amount

- a. None
- b. <3 people
- c. 3-5 people
- d. 5-10 people
- e. 10-15 people
- f. >15 people

SECTION 3 - Child Worker Practices

1. How old is the youngest worker on the farm where you work?

- a. < 12 years old
- b. 12-15 years old
- c. 16-17 years old

2. For the under-18-years-old worker, what is the average number of working hours in a week?

- a. < 2 hours

- b. 3-5 hours
 - c. 6-8 hours
 - d. >8 hours
3. For the under-18-years-old labor, what is the average number of working days in a week?
- a. Every day
 - b. 4-6 days in a week
 - c. 2-3 days in a week
 - d. 1 day in a week
4. How many workers under 18 years of age attend elementary school level?
-
5. How many workers under 18 years of age attend junior high school level?
-
6. How many workers under 18 years of age attend senior/vocational high school level?
-
7. How many workers under 18 years of age who does not attend school?
-
8. If they do not attend school, what is the reason?
- ☐ Financial issue
 - ☐ Not interested
 - ☐ Do not know
 - ☐ Not relevant (all the child workers attend school)
 - ☐ Other
9. If you work while attending school, working time for child labor is :
- a. Before school (morning/dawn)
 - b. After school (noon until afternoon)
 - c. Afternoon until evening
 - d. Do not know
 - e. Not relevant (all the child workers do not attend school)
10. Are there any cases of violence between adult workers and child workers (worker under 18 years)?
- a. Yes
 - b. No
11. If yes, what was done by the owner of the farm to handle the cases of violence that occurred?
- ☐ Fired the offender
 - ☐ Giving medication for the victim
 - ☐ Making new rules
 - ☐ Hand over the cases to the authorities
 - ☐ Not relevant (the is no violence against the child worker)

- ☐ Other
- 12. Are there any special relationship between the farm's owner and the child in this farm?
 - ☐ Yes, there is a family relationship
 - ☐ Yes, there is a friendship relationship between their parents
 - ☐ No special relationship
 - ☐ Other

SECTION 4 - Remuneration and working hours for workers

1. What is the paying system on your farm for full-time workers?
 - a. Daily salary
 - b. Weekly salary
 - c. Monthly salary
 - d. Profit sharing percentage
 - e. One time salary (worker only work in a certain time)
 - f. Do not know, respondent is a part-timer
2. What is the paying system on your farm for part-time/seasonal workers?
 - a. Daily salary
 - b. Weekly salary
 - c. One time salary (worker only work in a certain time)
 - d. Do not know, respondent is a part-timer
3. Is there a bonus for workers?
 - a. Yes
 - b. No
4. Is the profit sharing percentage or bonus informed openly to the worker?
 - a. Yes
 - b. No
 - c. Not relevant (There are no profit sharing/bonus)
5. Approximately, how much is the salary obtained in a month?
 - a. <1 million
 - b. 1-1,5 million
 - c. 1,5-2 million
 - d. 2-3 million
 - e. 3-5 million
 - f. >5 million
 - g. Not relevant (wage is no in the form of salary)
6. Are the wages paid for men and women workers the same for the same work?
 - a. Yes, equally
 - b. Men's wages are lower than women
 - c. Men's wages are higher than women
 - d. Not relevant, all workers are men
 - e. Not relevant, all workers are women
 - f. Do not know
7. Besides salary and bonus (if there is any), Do you get others allowance from the farm?
 - ☐ None

- ☐ Groceries
 - ☐ Residence
 - ☐ Children school's fee
 - ☐ Raya days allowance
 - ☐ Providing meals in working place
 - ☐ Meals allowance (e.g : in the form of money)
 - ☐ Other
8. Is there a written work contract?
 - a. Yes
 - b. No
 9. Do you have a copy of the contract document?
 - a. Yes
 - b. No
 - c. Not relevant (There is no written contract)
 10. If yes, is there an agreement on work hours that is written in that contract?
 - a. Yes
 - b. No
 - c. Not relevant ((There is no written contract)
 11. What is the average work hours per day that are agreed upon both verbally and written with the owner of the farm where you work?
 - a. <2 hours
 - b. 2-4 hours
 - c. 4-6 hours
 - d. 6-8 hours
 - e. 8-12 hours
 - f. >12 hours
 12. Do you usually work over the agreed hours or on a contract basis?
 - a. Never work over the agreed working hours
 - b. I often work over the agreed hours
 - c. Sometimes I work over the agreed working hours
 13. Are you work over 8 hours a day or 48 hours per week?
 - a. Yes
 - b. No
 14. Is there a wage for overtime if you work overt the agreed working hours?
 - a. Yes
 - b. No

SECTION 5 - Occupational Health and Safety

1. From the owner of the farm where you work, are there occupational health and safety regulations - OHS (for example, including the obligation to wear PPE)?
 - a. Yes
 - b. No
2. Please state what health and safety facilities are available in the area of the pen where you work?

- ☐ There is a first aid box/medicines
 - ☐ Provides PPE (mask, gloves, boots, etc.)
 - ☐ Provides training for occupational health and safety
 - ☐ Always keep an eye on any potentially dangerous areas of the hencoop and resolve them immediately before they cause accidents or dangerous to the health of workers
 - ☐ There is a K3 system
 - ☐ There is a P2K3 committee
 - ☐ There is a fire alarm
 - ☐ There is a fire extinguisher equipment
 - ☐ There is an alarm for electricity shutdown
 - ☐ There is no occupational health and safety facilities
 - ☐ Other
3. If there is training about OHS for workers, how many times was it held in 2019?
- a. There is no training
 - b. Once in a year
 - c. Twice a year
 - d. More than 2 times a year
4. How long does the training take on average?
- a. <2 hours
 - b. 2-4 hours
 - c. >4 hours
 - d. Not relevant (there is no OHS training)
5. How often do you use PPE in the farm area?
- a. Always wear then when working
 - b. >75% of the working hours
 - c. 50-75% of the working hours
 - d. 25-50% of the working hours
 - e. <25% of the working hours
 - f. Never use the PPE when working
 - g. Not relevant (They are not providing the PPE)
6. What do the farm owners or OHS officers do if they don't wear PPE?
- ☐ Ignores it
 - ☐ Gives a warning
 - ☐ Gives a penalty
 - ☐ Other
7. How are you informed about the position / location of emergency equipment / supplies (first aid kit / medicine, APAR / light fire extinguisher) or what to do if an incident occurs in the farm area?
- ☐ Through the training
 - ☐ When I started working
 - ☐ Through a special officers for OHS
 - ☐ Not informed
8. Have you been properly informed by the owner of the farm or the OHS officer about the procedure for using the emergency equipment / equipment?
- a. Yes, I informed regularly

- b. Never been informed, but only once or rarely again
 - c. Never been informed
9. Usually, is there a special officer or the owner informed directly about the OHS informations?
- ☐ Special officer
 - ☐ Farm's owner
 - ☐ Japfa PL/TS
 - ☐ Employment agencies
 - ☐ Never been informed
10. Does the farm owner hold regular health checks for workers?
- a. None
 - b. Once a year
 - c. Every 2 years
 - d. Every 3 years
 - e. Every 4-5 years
 - f. Once in over then 5 years
11. How is the work accident protection mechanism or service for workers at your place?
- ☐ BPJS ketenagakerjaan
 - ☐ BPJS kesehatan
 - ☐ Fully borne by the company
 - ☐ Partially borne by the company
 - ☐ Occupational health and safety insurance
 - ☐ Given a special wage beyond the basic wage for medical / health care
 - ☐ There is no special service/mechanism
12. If the work accident treatment is partially covered by the company (reimbursement), is there a certain maximum amount?
-
13. Have there been any work accidents on your farm during 2019?
- a. Yes
 - b. No
 - c. Do not know
14. If there are any, how many accidents occurred during 2019?
-

SECTION 6 - Number of Accidents at Work

1. What is the approximate number of fatal injuries that will occur in 2019? (If there is and know, fill in the options "Other" or "Other")
 - a. None
 - b. Do not know
 - c. Other
2. If there is a fatal injury, do you know the cause?

.....

3. What is the approximate number of severe injuries that occurred in 2019? (If there is and you know it, fill in the options "Other")
 - a. None
 - b. Do not know
 - c. Other

4. If there is a severe injury, do you know the cause?

.....

5. What is the approximate number of minor injuries that occurred in 2019? (If there is and you know it, fill in the options "Other")
 - a. None
 - b. Do not know
 - c. Other

6. If there is a minor injury, do you know the cause?

.....

7. What is the approximate number of near miss injury that occurred in 2019? (If there is and you know it, fill in the options "Other")
 - a. None
 - b. Do not know
 - c. Other

8. If there is a near miss injury, do you know the cause?

.....

SECTION 7 - Working Motivation

1. What is your motivation for working?
 - ☐ Salary
 - ☐ Bonus
 - ☐ Family allowance
 - ☐ Relationship with contract farmers
 - ☐ Interested in chicken farming
2. Does the owner of the farm work with you?
 - a. Yes
 - b. No
3. Do you know how many workers quit in 2019? (If there is and know, fill in the options "Other")
 - a. None
 - b. Do not know
 - c. Other
4. If there is, do you know the reasons behind it?
 - ☐ Improper wages
 - ☐ They chose another job
 - ☐ Do not like the job

- ☐ Do not know
- ☐ Other

SECTION 8 - Fulfillment of Basic Needs

1. In a day, what kind of food does your family eat?
 - ☐ Rice, potato, corn, sweet potato (carbohydrate)
 - ☐ Tempeh, tofu, egg, meat (protein)
 - ☐ Vegetables
 - ☐ Fruit
 - ☐ Instant noodles
 - ☐ Other
2. How is the composition of your family's daily meals?
 - a. The portion of carbohydrates is more dominant than protein, vegetables and fruit
 - b. The portion of carbohydrates, protein, vegetables and fruit are equal
 - c. Only carbohydrates and vegetables
 - d. Only carbohydrates and protein
 - e. Instant noodles
3. When you are working, is food provided for you?
 - a. Yes, they give the exactly same meals as I consume in my house
 - b. Yes, they give a better meals than what I consume in my house
 - c. Yes, they give less than what I consume in my house
 - d. No, but the gave money or food allowance
 - e. No, and they do not give the food allowance
4. Are there any facilities such as a place for bathing, washing, toilet (MCK) in the residence or in the farm area?
 - a. Yes
 - b. No
5. What is the condition of the proper place for bathing, washing, toilet (MCK) in the place of residence or in the cage area?
 - ☐ Does not pollute drinking water sources (wells and water pumps)
 - ☐ Manure collecting holes is away from drinking water sources
 - ☐ It is odorless and the feces cannot be reached by insects or mice
 - ☐ Adequate size and does not contaminate the surrounding soil
 - ☐ Easy to clean and safe to use
 - ☐ Equipped with protective walls and roofs
 - ☐ Waterproof walls
 - ☐ Availability of lighting
 - ☐ Waterproof floor
 - ☐ Good ventilation
 - ☐ Availability of water and cleaning equipment
 - ☐ Availability of septic tank

Appendix D - LOCAL COMMUNITY SURVEY

The survey was conducted as part of a social study, a community response plan around the chicken farming activities conducted by Ciomas and its partners.

Our big hope is to get insights so that we can do this study as best as possible for the chicken farming activities that we do in your neighborhood.

We thank you very much for your time and willingness to participate in this survey

SECTION 2 - Respondent Profile

1. Name?

.....

2. Gender?

a. Male

b. Female

3. Age?

a. < 18 years old

b. 18 – 25 years old

c. 26 – 35 years old

d. 36 – 50 years old

e. 51 – 60 years old

f. 61 – 70 years old

g. > 70 years old

4. Phone Number?

.....

5. Where is the city / district and province you live in?

.....

6. How long have you lived in your current residence?
- < 1 year
 - 1 – 5 years
 - 5 – 10 years
 - > 10 years
7. Is there a chicken farm in the neighborhood where you live, which are Japfa's contract farmers?
- Yes, < 500 m
 - Yes, 500 m – 1 km
 - Yes, 1 km – 2 km
 - Yes, 2 km – 3 km
 - Yes, > 3 km
 - No

SECTION 3 – Contract Farmer Profile

- As you know, how many Japfa partner breeders are in your neighborhood?
 - 1
 - 1 – 3
 - 4 – 6
 - > 6
- According to you, is the farm closest to you a large, medium or small capacity contract farmer? (Large capacity> 40,000 chickens; Medium 10,000 - 40,000 chickens; Small <10,000)
 - Large
 - Medium
 - Small
 - I do not know
- Is the contract farmer a local resident or a migrant?
 - Local resident
 - Migrant
 - I do not know
- Is the contract farmer a respected person (community leader / community leader) in the neighborhood where you live?
 - Yes
 - No
 - I do not know
- Do you know that Japfa contract farmers who are in your neighborhood get permission from the head of the community (for example, RT / RW and Kades)?
 - Yes
 - No
 - I do not know

SECTION 4 - Relationship between Contract Farmers and the Community

1. How do you respond / respond to these contract farmers?
 - a. Good
 - b. Not so good
 - c. Not good at all
2. Does the existence of Japfa's contract farmers make a particular contribution to the residents?
 - ☐ Provide free chicken donations to the community
 - ☐ It becomes easy to buy chickens so the residents do not need to go far because there is Japfa in the neighborhood
 - ☐ Providing material assistance for road repairs
 - ☐ Serving the sale of manure for local residents
 - ☐ Providing jobs to local residents
 - ☐ Buy materials from local residents for the manufacture or need of a house
 - ☐ Opening business opportunities around the cage (for example, opening a shop, rented place)
 - ☐ Educational program about healthy living and balanced nutrition for families
 - ☐ Build public toilets for residents
 - ☐ Build houses of worship / donations for houses of worship
 - ☐ Other...
3. How often do these contract farmers interact with local residents? Especially for community activities
 - a. Often, more than 2 times a week
 - b. At least once a week
 - c. At least once a month
 - d. At least once a year
 - e. I do not know
4. Based on your experience, are there any things that are less pleasing to the activities of Japfa contract farmers in your neighborhood? If there is, please specify.
.....
5. Have you ever personally or through the head of the local community been informed about the complaint?
 - a. Once, once a year
 - b. Once, 2-3 times a year
 - c. Once, 3 - 6 times a year
 - d. Ever,> 6 times in 1 year
 - e. No complaints
6. If there are complaints, how do contract farmers usually respond to the residents' complaints?
 - ☐ Deliberative discussion
 - ☐ Discussions with RT / RW or local community leaders
 - ☐ Immediately act to eliminate the source of the complaint
 - ☐ Discussion with Japfa

- ☐ Not doing anything
 - ☐ No complaints
 - ☐ I do not know
 - ☐ Other...
7. Are there any community leaders (highly respected local residents) in your area?
 - a. Yes
 - b. No
 8. As you know, are there any residents in the neighborhood who work for the Japfa partner farm?
 - a. Yes, all the workers are local residents
 - b. Yes, > 75% of the workers are local residents
 - c. Yes, 50-75% of the workers are local residents
 - d. Yes, 25-50% of the workers are local residents
 - e. Yes, there are <25% of the workers are local residents
 - f. No local workers, all migrants
 - g. There are no workers, contract farmers work alone
 - h. There are no workers, contract farmers are only assisted by their families

SECTION 5 - Local Labor Employment

1. If there are migrant workers, does it have a good / bad effect on the tranquility of the local people?
 - a. Affects positively
 - b. Affects negatively
 - c. There is no influence
 - d. Not relevant (all local workers)
2. Briefly describe how the positive or negative effect was given (Write "N / A", if the answer is no effect or not relevant to the previous question.)

.....

SECTION 6 - Safe and Healthy Living Conditions

1. Has the contract farmer ever made a special contribution to hygiene and health facilities?
 - ☐ Yes, clean toilet construction
 - ☐ Yes, making facilities or procuring simple health activities
 - ☐ Yes, it helps provide access to clean water
 - ☐ Nothing
 - ☐ I do not know
 - ☐ Other...
2. If you have ever received a contribution to the construction of a clean toilet, how is the feasibility of the toilet?
 - ☐ Does not pollute drinking water sources (wells and water pumps)
 - ☐ Manure collecting holes are away from drinking water sources
 - ☐ It is odorless and the feces cannot be reached by insects or mice
 - ☐ Adequate size for the surrounding community and does not pollute the surrounding land

- ☐ Easy to clean and safe to use
 - ☐ Equipped with walls and roof
 - ☐ Watertight walls
 - ☐ Lights exist
 - ☐ Waterproof floor
 - ☐ Good ventilation
 - ☐ Water and cleaning tools are available
 - ☐ Has a septic tank
 - ☐ No contribution to toilet construction
 - ☐ Other...
3. In your opinion, does the existence of Japfa partner chicken farm affect the health and safety of local residents?
- ☐ Yes, a polluted environment is prone to disease
 - ☐ Yes, the environment is polluted and causes malaria
 - ☐ Yes, the environment is polluted and causes TBC disease
 - ☐ Yes, the environment smells bad
 - ☐ Yes, the environment is polluted and pollutes the water
 - ☐ Nothing is disturbed
 - ☐ Other...
4. Does the existence of Japfa partners affect the quantity and quality of water in the surrounding environment?
- a. Yes, adding a source of clean water
 - b. Yes, the water quality is bad because it is polluted
 - c. There is no impact, the daily needs for clean water are fulfilled
 - d. There is no influence, the daily needs for clean water are not fulfilled
 - e. Others
5. Do Japfa contract farmers often pay attention to the availability of clean water in your environment?
- a. Yes
 - b. No
 - c. I do not know
6. In a day, what foods do you consume?
- ☐ Rice, potatoes, corn, sweet potatoes (Carbohydrates)
 - ☐ Tempe, tofu, eggs, meat (Protein)
 - ☐ Vegetables
 - ☐ Fruits
 - ☐ Instant noodle
 - ☐ Other...
7. Does your family fulfill a balanced nutrition?
- a. The portion of carbohydrates is more dominant than protein, vegetables and fruit
 - b. The portions of carbohydrates, protein, vegetables and fruit are equal
 - c. The portion of carbohydrates is less than protein, vegetables and fruit
 - d. Only carbohydrates and vegetables
 - e. Only carbohydrates and protein
 - f. Mostly Instant Noodles

8. Do you eat chicken? If yes, usually broiler or country chickens?
- a. Broiler chicken
 - b. Country chicken
 - c. Combination, but country chicken is dominant
 - d. Combination, but broiler chicken is dominant
 - e. Not consuming chicken
9. If you choose country chicken or predominantly consuming country chicken, please explain the reasons. (Write "N / A", if you choose broiler chicken or predominantly consuming broiler chicken)

.....

Appendix E - CONSUMER SURVEY

This survey was conducted as part of a social study, related to public responses to food products from one of the largest food producers in Indonesia.

We really hope to get your insights, so that we can do this study as best as possible to use it for improving the quality of food producers in Indonesia.

We thank you very much for your time and willingness to participate in this survey

SECTION 2 - Respondent Profiles

1. Name?

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2. Gender?

- a. Male
- b. Female

3. Age?

- a. 12 – 17 years old
- b. 18 – 25 years old
- c. 26 – 35 years old
- d. 36 – 50 years old
- e. 51 – 60 years old
- f. 61 – 70 years old
- g. > 70 years old

4. Phone Number?

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5. Where is the city / district and province you live in?

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6. Postal Code

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7. What is the average amount of household expenses per month?

- a. < Rp. 1.000.000
- b. Rp. 1.000.000 – Rp. 1.500.000
- c. Rp. 1.500.000 – Rp. 2.000.000
- d. Rp. 2.000.000 – Rp. 3.000.000
- e. Rp. 3.000.000 – Rp. 5.000.000
- f. Rp. 5.000.000 – Rp. 7.500.000
- g. > Rp. 7.500.000

8. Choose the products below that you know / consume?

- ☐ Comfeed (Animal Feed)
- ☐ Best chicken
- ☐ CP chicken
- ☐ Fiesta
- ☐ So Good Sozzis So Nice
- ☐ So Good
- ☐ Indomie
- ☐ Sarimie
- ☐ Real Good Susu Bantal
- ☐ Ultramilk
- ☐ Greenfields
- ☐ Indomilk
- ☐ Bendera
- ☐ Others

SECTION 3 - Consumer Health and Safety

1. In a day, what foods do you eat?

- ☐ Rice, potatoes, corn, sweet potatoes (Carbohydrates)
- ☐ Tempe, tofu, eggs, meat (Protein)
- ☐ Vegetables
- ☐ Fruits
- ☐ Instant Noodle
- ☐ Others

2. Do you think that protein from eggs or chicken can be replaced with rice / instant noodles?

- a. Yes
- b. No

3. Where are the protein sources that you usually consume?

- ☐ Beef or lamb
- ☐ Chicken
- ☐ Egg
- ☐ Tofu, tempeh, nuts
- ☐ Instant noodles
- ☐ Others

4. Do you usually eat chicken?

- a. Yes
- b. No

5. Do you tend to choose certain types of chicken for consumption?

- a. Tend to consume broiler chicken
- b. Tend to consume country chicken
- c. Do not choose certain types, broiler chickens or country chickens are the same
- d. Irrelevant because not a chicken consumer

6. If you tend to consume country chicken, what is the reason you do not choose broiler chicken?

- ☐ Fear of consuming broiler chickens due to hormonal issues found in broiler chickens
(Although broiler chickens are not injected with hormones, broiler chickens tend to be larger because of the breed type of chickens)
 - ☐ The taste is less savory than country chicken
 - ☐ This is due to the issue of lack of freedom / welfare which is usually found in broiler chickens because they are kept in closed cages
 - ☐ Irrelevant because not differentiating between broiler chickens / country chickens
 - ☐ Irrelevant because not a chicken consumer
 - ☐ Others
7. Do you think it is important for a food manufacturer to pay sufficient attention to maintaining the safety of its products for consumption?
- a. Yes
 - b. No
 - c. I do not know
8. Do you think that you know it is important if a food producer is produced in a certified facility (e.g. HACCP and Halal)? Note: HACCP (Hazard Analysis Critical Control Point) is a quality assurance system to control the safety of food produced / consumed
- a. Yes
 - b. No
 - c. Tend to not care at all
9. How are your expectations for food products?
- ☐ Has a good nutritional content
 - ☐ Is a halal product
 - ☐ Beneficial for health
 - ☐ Have clear information regarding allergies
 - ☐ Other
10. Please tell briefly about your experiences with consuming Japfa products

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