Indonesia

Indonesia
Preparatory Survey on BOP business on egg farming and sales marketing
Report
(Summary)

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Japan International Cooperation Agency (JICA)

ISE FOODS.INC.
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1 Introduction

1-1 The Theme of the Project

The key theme of this project is delivering low price and high quality eggs to Indonesian customers at relatively less developed area, such as Aceh. The most important point key for the project’s success is to establish a sales network and the theme of the project is to supply safe and relief eggs. The project educates personnel thoroughly and aims to achieve high quality of sanitary supervision, bait, safety of an additive, investigation of chicks’ gene, distribution of chilled and thermal management from a production process. The project is planning to promote a sales network through both direct and in-direct distribution channel.

There are many companies that develop business in Japan but also develop its business in Indonesia, so the project would like to make those companies as first target for a direct sale channel. In the next place, the project aims to improve inhabitants’ eating habits in Aceh by using existed wholesale stores that already retain an existing network of consumers.

1-2 Chicks Procuring

We collect information of chicks and choose the best selective breeding from 30 species now. It is conceivable that importing 300000 chicks at starting stage. If we consider starting the business smoothly, we import chicks that are about 120 day-old first and buy chicks after a poultry-farm gets bigger and more enrich. It is necessary to manage a steady sanitary from production. The experiment will be needed to adjust to any situations before importing chicks. Also choosing chicks species after researching of fecundation rate and a death rate and etc. deeply will be absolute requirement to achieve the project. Especially, choosing chicks that have a strong immunity against infectious disease is the key to success.

2 The Project Business Plan

2-1 Business Model, Schedule, Running Cost and Risk etc.

① Constructing and Managing a Poultry-Farm in Aceh

10 poultry houses that each poultry house is able to accommodate 3 million adult chickens are constructed and 30 million chickens are accommodated in total. According to the result of interviews, there is a huge gap between egg demands that is about 130 million chickens and egg supply capability that is about only 30 million chickens. It means there is enough possibility to sell. Production will be stated in 2015. A deficit would be unavoidable for the first year, but profit would like to be positive in the following year in 2016. It is assumed to expand the capacity sequentially in each year. For example, amount of production and sales amount are 820 tons for the first year, 6,500 tons for the second year and 13,000 ton for the third year.

② Extending One Million Chicks Scale

Supplying of 300,000 chicks does not meet the demand that BOP business aims to promote health improvement due to the depreciation of egg prices.
It is planning to expand the scale as the next stage.

③ Constructing Feed Mill

Basic materials such as feed mills cannot be supplied around there. The nearest place where those basic materials can buy is 610km away. It is necessary to establish self-procurement of materials to reduce costs and to expand line of business such as cereal production to procure nearby the poultry farm. Also hatchery, adult chicken farm and products packaging plant will be planned to establish as annex in the future.

④ Promoting the three steps described above and considering the implementation of the following.

• Equipment of cereal production
- Establishing equipment of grain storage
- Establishing a manufacturing system of biomass fuel using fowl droppings
- Exporting surplus product to Japan
- Expanding Aceh’s neighborhoods market
- Considering a partnership
- Promoting a poultry-farm construction in the capital near Jakarta
- Sharing human resources at both Aceh and Jakarta
- Unification of human resources development
- Sharing accounting and selling
- Joint purchasing feed
- Planning to facilitate licensing of training in Japan

**Project Participants & Business Model**

To estimate the business challenge that is assumed in the future, SWOT analysis is used as follows.

**Business Challenge Analysis (SWOT Analysis)**
From the historical background of Aceh, external factors such as political situation will be considered as hindrance to growth in the future. In addition, the risk of natural disasters such as earthquakes is statistically higher than other regions. Also it is necessary to overcome the challenges of market expansion as a weakness. Consumption of egg is gradually increasing around capital cities in Indonesia, but it is still not spreading to Aceh. At the first stage, it is difficult to control the prices of eggs and price level of egg is same as that have been already existed. It means that the prices cannot be advance points to get a sales market. To correspond to the situation specifically, marketing strategy that highlights “high quality” and “safety” will be considered. At the same time, the local partner that has already negotiated plays an important role in sales strategy. The local partner has already had the sales network and it is considered that there is no impede as the result of a consultation.

At the second stage, we take advantages of scale and try to achieve the purpose that price decline. Feed rate would likely to increase and supply eggs with low cost that can be one of the advance points.

It is assumed that the second year will be able to ensure stable production. In that case, positive balance will be expected to achieve in the third year. However, 10 years are needed to catch up total loss from the beginning of the business. As this expectation shows that it is difficult to make profits with only 300,000 chickens. This scale cannot be expanded to decrease the prices of eggs. Also constructing of feed mills is necessary to increase production quantity and to decrease feeding costs from the cash flow analysis.

### Business Stage & Schedule

<table>
<thead>
<tr>
<th>Business Stage</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Stage</strong></td>
<td>2 years are needed to business is stabilized&lt;br&gt;Planning to conduct training in Japan every year since 2 years</td>
</tr>
<tr>
<td>(1 Year ~ 3 Year)</td>
<td></td>
</tr>
<tr>
<td><strong>Second Stage</strong></td>
<td>Over 3 and 4 year business expansion (100 million chickens)&lt;br&gt;It depends on the situation in Jakarta, but if poultry farming would be accepted to construct, sharing human resources at both Aceh and Jakarta, unification of human resources development, sharing accounting and selling and joint purchasing feed.</td>
</tr>
<tr>
<td>(4 Year ~ 7 Year)</td>
<td></td>
</tr>
<tr>
<td><strong>Third Stage</strong></td>
<td>Make the business judgment about construction of feed mills from sales situation and market expectation at the second stage.&lt;br&gt;Bring establishment of a manufacturing system of biomass fuel using fowl droppings into perspective</td>
</tr>
<tr>
<td>(8 Year ~ 10 Year)</td>
<td></td>
</tr>
<tr>
<td><strong>Later</strong></td>
<td>Exporting surplus product to Japan&lt;br&gt;Expanding Aceh’s neighborhoods market&lt;br&gt;Product • Selling • Considering a partnership</td>
</tr>
</tbody>
</table>

### Egg Demand Forecast

The current situation of eggs in Aceh is 30 million units / days are produced from Aceh and 100 million units / days are exported from Medan. As the prices of eggs are almost same as Japan, an egg is one of the valuable sources of products for Indonesian people. According to the calculation, Indonesian people in Aceh only can take one egg per 4 days. These days intake ratio of rice is gradually decreasing and intake ratio of protein source is increasing in Indonesia. To expect the demand of eggs, the change of diet is necessity factor. The main factors that influence a lot are 1) population increase, 2) a change of diet, 3) the prices of egg, 4) the prices of feed and 5) a change of disposable income. Many of convertible factors are mixed up and it is difficult to expect exactly. However, the situation that Indonesian people in Aceh only can take one egg per 4 days will be expected to improve.

Especially, it is time that a poultry farm that is under construction will start running in 2015.
As it is 10 million chickens scale, increasing about 5 million of production and consumption are expected. ISE FOODS.INC.’s poultry farm will be running in Aceh and able to export eggs in 2016. One egg per 2.4 days is the result of expectation from factors. It can be increasing that depends on changing of diet.

Table of Egg Demand Expectation

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs /per Day</td>
<td>1,300,000</td>
<td>1,350,000</td>
<td>2,000,000</td>
<td>2,200,000</td>
<td>2,300,000</td>
</tr>
<tr>
<td>Population (Expected to increase 1.12%)</td>
<td>5,200,000</td>
<td>5,262,400</td>
<td>5,325,549</td>
<td>5,389,455</td>
<td>5,454,129</td>
</tr>
<tr>
<td>Egg intake Frequency (1 egg per X day)</td>
<td>4.0</td>
<td>3.9</td>
<td>2.7</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>The number of intake (the number of eggs / population)</td>
<td>0.25</td>
<td>0.26</td>
<td>0.38</td>
<td>0.41</td>
<td>0.42</td>
</tr>
</tbody>
</table>

2-3 Cooperating Situation of the Local Government

Some interviews have done already with Aceh’s government. Aceh’s governor, Lieutenant’s governor, chairman, vice-chairman, livestock director, Consul General of Japan and etc. are included to the interviews. According to the government side, Aceh’s holding where a poultry farm will be constructed is free of charge for 25 years. In addition, Ache’s government pressed to join for establishing a joint venture and showed positive opinion for the project.

2-4 Financial Planning and Financial Planning for the Implementation of the Project

The site that is leased by the government for constructing a poultry farm will be Aceh’s holding. (Rental expense is roughly calculated as a period of rental is changeable.) 10 poultry houses that contain 30 million chickens each will be constructed and the first one will be located in the most east part of Aceh and will develop to the west. The total cost of construction is 1.1 billion yen. Additional expenses are possibly added to the total cost. It is assumed that clear estimation of rough an amount of money for every single detail such as environment, transportation of raw materials and feeding will be necessary. Through constructing a poultry farm, it is important to search for a solution with a partner under a close discussion. Financial planning will be estimated after agreement of both decision based on the project planning. However, there is a huge money gap depending on how a process is to prevent measures. Maximum effect with minimum investment is aimed to be.

2-5 Operating Structure

Basic policy of this business promotion is that proceeds technology levels, production methods, and management with negotiation as long as both the local and Japan agree. From the construction process, 2-3 years of training is needed for local workers to start the project smoothly. Although Joint venture partner is still not selected, erecting a good structure of the multiplier effect is assumed.

2-6 Beneficial Effects on the BOP Market

It is a case that establishing and running poultry farms in Aceh. Details of benefit are down below.

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry-farm</td>
<td>Creation of new jobs at poultry farms is expected. Wage level is based on neighboring companies. However, it is assumed that it would reach the level that low income people can spend a stable life.</td>
</tr>
<tr>
<td>Agriculture &amp; Fishery Employees</td>
<td>The purchase of stable fishmeal and corn will profitability helps agricultural and fishery workers.</td>
</tr>
<tr>
<td>Relations of circulation</td>
<td>It provides a new job in transportation.</td>
</tr>
<tr>
<td>Realizing the stable food life</td>
<td>Contributing to the improvement of nutrition intake</td>
</tr>
</tbody>
</table>
Judgment for business Operation and Remaining Challenges

In business profitability, a high supply capacity of chickens egg will be expected in the future. However, a huge investment is necessary for the development of a private capital’s business independently to come in to existence. In addition to that, it is still possible that the business would not come into existence if scales of market development, scales of feed mills establishment and etc. are not suitable although more initial investment is enforced. Also the purpose of the project that is to deprecate prices of egg is difficult to be achieved with that level. With a progress of business developments in Aceh, construction of a poultry farm around Jakarta, where a huge demand of chickens egg can be expected is started considering. It can be possible to show a strong impact on profitability and deprecate prices of egg. As a result, the benefit to the BOP market gets bigger due to the decrease in egg price. Those things are assumed for remaining challenges.

Further Challenges for the Project

<table>
<thead>
<tr>
<th>Problem</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Although free loan is provided from Aceh's government, it is still necessary to select a suitable site for a poultry farm.</td>
</tr>
<tr>
<td>Choosing a Local Partner</td>
<td>It is essential to ensure sales markets. There are some strong competitors existed. More consultations are necessary.</td>
</tr>
<tr>
<td>Financing</td>
<td>It is still in process, but as Indonesia’s policy interest rate is very high compared with Japan, a low interest rate of fund-raising is necessary.</td>
</tr>
<tr>
<td>Business Plan in Jakarta</td>
<td>Aceh and Jakarta must proceed at the same time to receive a multiplier effect.</td>
</tr>
<tr>
<td>Feed Procurement</td>
<td>A channel that stably supplies feed with low cost is needed. Consultation is still in process and needs to be more specified.</td>
</tr>
<tr>
<td>Feed Mill</td>
<td>Construction of feed mill is desired in the future. It needs much cost to construct and needs to make a contact with a farm that has enough supply capacity of corn nearby.</td>
</tr>
<tr>
<td>Securing of Employment</td>
<td>It is necessary to ensure the human resources on poultry farm management.</td>
</tr>
<tr>
<td>Human Resource Development</td>
<td>Training programs and manual are required in order to master skills for managing a poultry farm management.</td>
</tr>
<tr>
<td>Environmental Research</td>
<td>Application for license will be needed to construct and manage a poultry farm. In addition, environmental research will be needed too.</td>
</tr>
</tbody>
</table>

Long-term View and Institutionalization

3-1 Long-term Future Planning

2015: Starting production in Aceh with 300,000 chicks scale of a poultry farm
Amount of production is 820 tons

2016: Amount of production is 6,500 tons

2017: Amount of production is 13,000 tons

Later
- Equipment of cereal production
- Establishing equipment of grain storage
- Establishing a manufacturing system of biomass fuel using fowl droppings
- Exporting surplus product to Japan
- Expanding Ache’s neighborhoods market
- Considering a partnership for producing, distribution and sales.
- Promoting a poultry-farm construction in the capital near Jakarta
3-2 The Project Effects to the Society
The purpose of the BOP business is to make egg’s price decline, do health promotion and create new jobs. Those have opportunities to raise levels of standard of life in Aceh. It belongs to the possibility that leads to the safety of the Malacca Strait is increased.

① Contribution to cope with bird flu
ISE FOODS.INC. has its own criterion independently that is stricter than the strictest quality assurance program of Pennsylvania in US. It is considered that it influences much to local person concerned through putting a poultry farm into practice. Example of the strict criterion is that introducing windowless chicken houses not to be polluted by flu and other diseases from outside. There is a huge gap between a normal chicken house and a windowless chicken house as there is no way that other bird and insect can get in to the windowless chicken house. Hopefully, that windowless chicken house will be wide spread in Indonesia.

② Contribution to the health promotion for Indonesian people
BOP business makes an opportunity to increase the supply of eggs and Indonesian people will have more opportunities to get eggs. It belongs to health promotion. Not only increasing the supply of eggs, but also expanding widely the equipment of cereal production, the equipment of grain storage and feed mill would estimate to help decreasing the prices of feeding and eggs in Indonesia.

4 Conclusion
4-1 Recapitulation
The investigation started in May 2013 in earnest. Dispatching inquiry commissions to Indonesia reaches to 6 times. Those were mainly to Jakarta, which is capital city of Indonesia, to Aceh and to South Makassar. Inquiry commissions from Japan played a central role and search for the challenges and the controversial points of business development with local research groups. The research was enforced elaborately as profitability will influence a problem of the business continuity and reliability to the Japanese company. About business profitability, as it is described in chapter 2-7, many obstacles will be expected to be exist as there are many remaining challenges, such as a channel of distribution, continuity profit and etc. Although high demands of chickens egg in Indonesia have great expectations in the future, it cannot help buy says that it is difficult for the business to be developed by private capital independently. However, it is clear that high demands of chickens egg in Indonesia and poultry farm business development will influence Indonesia’s economy a lot and help increasing not only health promotion rate but also employment rate and sales rate. It shows a great future as the business. It means that positive economic effect is easily estimated. Therefore, a steady economic growth from increasing employment rate in Indonesia is profitable for Japan too. For those great expectations from the government in Indonesia, the poultry business is hard to avoid joining for Japan. However, from profitability points, it is still difficult situation for ISE FOODS.INC. to develop the business in Indonesia although is worth considering positively. As a result, the benefit to the BOP market gets bigger due to the decrease in egg price. With a progress of business developments in Aceh, construction of a poultry farm around Jakarta, where a huge demand of chickens egg can be expected is started considering. Egg production in Indonesia is way behind away from Japanese Egg production. Indonesia cannot help but to be said that it is extremely low level from views of contribution to cope with flu and contribution to health promotion in Indonesia. Constructing a modern poultry farm around Jakarta needs to be in process as soon as possible because not only profitability but also sanitary.

4-2 Summary
The price of egg in Indonesia is higher than other price levels of products. It is almost same
as the price of eggs in Japan. As the price level of products in Indonesia is way cheaper than the price level of products in Japan, it is assumed that the price of egg is extremely high. For example, the price of 10 eggs in Indonesia is same as in Japan, but the price of 10 kg of rice in Tokyo is 2000 yen and 900 yen in Indonesia. The taxi fee is also different. The starting fare of taxi in in Tokyo is 710 yen and 60 yen in Indonesia that is less than tenth part. For those researches, the necessity of the poultry business in Indonesia is considered.

The reasons why the price of egg in Indonesia is higher than other price levels of products are not only lack of supply capacity but also expensive grains for animal consumption in Indonesia. In the case of Aceh, about 130 million chickens are in demand based on the research. However, the actual situation is that only 30 million chickens are supplied and others are exported from Medan that is more than 600 km away. As it is hard to obtain poultry feed in Aceh, it is purchased from Medan too. For those reasons, the government in Indonesia strongly places its hopes on construction of poultry farms.

Indonesia has the largest population in ASEAN and the largest population of Islam in the world. In addition to that, Indonesia is known as friendly toward Japan and economic growth in recent years shows positive dramatically and expects to keep continuing in the future. However, there are some important remaining challenges such as the unemployment rate and poverty rate are very high. For that reason alone, supporting from Japan has great expectations.

Especially strengthening the economy recourses of Aceh that was damaged by earthquakes and tsunami in 2004 is absolutely required as it connects with the Strait of Malacca that is important area for transportation for Japan too. The environmental standards and regulations in Indonesia are investigated. However, those levels are levels that Japan can achieve. Bird flu and funds will become issues in the future. Costing for avian bird flu and fundraising need to be carefully planned. However, the future plan and the purpose of the BOP business are considered, the poultry business in Indonesia is assumed to be success.

4-3 Future Business Development

For those findings, it is considered that ISE FOODS.INC. is essentially required to advance a project with a company that has a strong sales network in the local as partnership. Specifically, local employees are trained at a poultry farm in Japan while constructing and managing a small-scale of demonstration poultry farm. Those demonstrations are very useful for clear grasp of elaborately market research, new suitable place cultivation and etc.

In addition to that, by using volunteer system cooperating with nongovernment, it is examined that sending staff members of ISE FOODS.INC. for 1~2 years to Aceh. It aims to establish a quality managing method and on-the-job-training for local people who manage a poultry farm in Indonesia.

Not only constructing a poultry farm but also a feed mill that combines with training profile for poultry farm business operators around. Constructing a feed mill is estimated when the poultry farm business begins in earnest. It is difficult to keep a profit within only 30 million chickens. Purchasing feed from outside is the main factor. To this initial investment, if construction of a poultry farm comes up with gratis fund aid, the possibility of being realized the low price of egg increase.

60% of feed is corn. Fishmeal and others are used in rest of percentage. Constructing of own company’s feed mill connects to not only controlling the cost of feeding but also agriculture promotion by cultivating corns and fishery promotion by using fishmeal. The climate in Aceh is suitable for cultivating corns. Corns produced in Aceh transport to Medan first and processed as feed. The processing charges are added to corns and it is the factor that the cost of feed and egg are high.

To raise the BOP market and produce eggs with a low cost, construction of feed mill is important key. It is also fit on local fisheries industry too as a steady purchasing of fishmeal can be expected. For ISE FOODS.INC., if it is possible to reserve feed with a low cost stably, of course, it is considered that it connects to decreasing production cost. Therefore, it is assumed that establishment of a poultry farm and a feed mill together is valid for this BOP project.