FOODTECHINDONESIA

FoodTechIndonesia

Adding value to the Indonesian poultry sector

Project:	Feasibility study turkey farming Indonesia alias “Project Kalkun”
Counterpart:	PT Ciomas Adisatwa PKP, member of Japfa group
Presented by:	Hendrix Genetics (lead partner), BU Hybrid Turkeys Larive International and Clarity Indonesia
Date:	22 December 2015
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HENDRIX GENETICS

Hybrid
A Hendrix Genetics Company

LARIVE
GROUP

Ministry of Foreign Affairs of the Netherlands

Holland.

Feasibility study turkey meat for Indonesia

Introduction

Dutch partners

Hybrid Turkeys, a Hendrix Genetics subsidiary (lead partner), supported by Larive International.

Indonesian partner

PT Ciomas Adisatwa, a subsidiary of PT Japfa Comfeed Indonesia tbk

Activities

1. Analysis of retail and consumer preferences & prices.

2. Mapping production process
   - Farming;
   - Feeding;
   - Stall equipment;
   - Processing techniques design & set up;
   - Operational procedures & work flows.
3. Availability and costs of inputs (feed, additives, energy, medicines).
4. Investment budget, operational budget.
5. Legal framework on importing livestock (parent stock, hatching eggs or commercial toms and hens as day-old-chicks).
6. Disseminate results by:
   - Organizing joint workshops;
   - Participating at relevant symposia & exhibitions;
   - Supporting creation of awareness within the sector.

Management summary

Executive summary

This project is developed to study the feasibility of turkey meat as a potential alternative diet to broiler for Indonesians' daily life. Turkey is yet not known at all, except to the minority of non-muslim people and foreigners whom can buy the imported frozen meat at extremely expensive prices.

Indonesia is a country in which in 2011 a volume of 1.613.592 tons, ranking it on the 11th place on the worlds FAO list of poultry consumption (6.66kg/capita) at a continuous increasing trend.
The Indonesian poultry production is for this reason very well developed, with good infrastructure and logistics, supported by both integrated and independent actors.
Since 2012 the market is characterized by overproduction of broiler meat and as a consequence suffering low consumer prices. Indonesia is not able to export its poultry products due to the permanent AI situation in the country.

Our study has focused on feasibility of turkey meat in big cities. Introduction of the meat in a high density populated area is the easiest and most effective first step to make people familiar with this type of poultry meat. Consumers are used to buy chicken cuts or processed meat and are most open to alternative poultry products.

A financial feasibility has shown that turkey farming could be a valid alternative.

The project team thanks the directors of PT Ciomas and PT Japfa Comfeed for their great contribution during the project realization.

Management summary

Conclusions

Technical feasibility

To allow Indonesian poultry companies to start trying turkey, we opted for the approach to import commercial day-old poults and toms. In this way farmers can learn to handle the new specie in growing barns, rather than setting up multiplication activities which are considered too risky in a non-developed turkey market.

During the test period, slaughtering and processing will be done manually, avoiding the purchase of expensive machinery.

This document will focus on the technical feasibility of commercial poults and toms.

Commercial feasibility

Nowadays in Indonesia, turkey meat is known as the Christmas and Thankgivings's dinner meat component in the Western world. Broiler is consumed as the poultry meat since immemorial times, as a whole chicken and mostly processed in urban agglomerates, although turkey could be a welcome alternative due to the different color and texture .

The openness shown by our counterparts to our presentations and the serious interest for the multiple applications of turkey meat stems us positive in relation to the feasibility of a turkey demonstration project in Indonesia.

Retail preferences & prices.

Findings

Retail

The Market Place

It is clear that in the years to come we want to focus on retailers and the high end market in the main cities of Indonesia. Both from a consumer, logistical as cultural point of view this is the most reasonable and effective approach.

Product & Price

Most shops offer small and bigger cuts of broiler, and charcuterie products made of broiler, in packages supporting an average family size.

In general Indonesia is a fresh market, and fresh products have the advantage of a higher turnover and lower storage cost, along with the disadvantage of obsolete stock risk. In the urban areas with a big density of popular malls, retailers do not have a strong preference for fresh or frozen products, although nowadays the freezing capacity is rather limited in particular in the retail shops.

Prices are actually attractive for the retailers, making turkey production, processing & trading a valuable activity both for the integrators and the retailers.

Both Japfa and Hybrid believe that a start with a smaller test farm (demonstration project) is a must to get familiar with the product and the market acceptance. If this turns to be successful, both parties agree that the potentiality is huge.

Consumer preferences & prices.

Findings

Consumers

1. Product (fresh/frozen)

Given and the fact that most inhabitants do not possess freezer facilities, most Indonesians in the cities prefer fresh meat cuts rather than frozen. This picture is significantly different in urban areas compared to rural towns and villages.

As turkey meat is not yet well known, we believe that the turkey will not be saleable in big portions, and require small packs, comparable with current offer for broiler parts in most supermarkets.

2. Price

In general it can be stated that turkey meat is approximately 30% higher in price compared to broiler meat, due to the higher energy and less fat content. We are however aware that during the introduction period it might be necessary bring the prices a bit down towards broiler levels to take away the price threshold.

3. Size

Due to the hot and humid climate, cuts should be at a size these can be consumed in 2 to 3 days.

4. Volumes

As this is a completely new product for 99.9% of Indonesians, it is hard to say what will be the consumption volumes. For this reason, consortium partners want to be prudent and start small.

3. Etc.

Mapping production process
Farming

Farming

1. Inputs: the main inputs to enable the rearing of poults are:
    a. Day old turkeys (poults and toms from abroad)
    b. Housing facility (own, rented or contracted)
    c. Feeding, being between 75% and 80% of input
    d. Direct labour
    e. Energy (electricity, water, gas)
    f. Veterinary, vaccins and medical threatments
    g. Burden materials and costs (litter, cleaning, etc)
    h. Technical service and supervision
    i. Financial costs

2. Outputs
    The farming activity results in one single output, the reared turkeys. For capacity reasons, poults will be loaded at 12 weeks of age at approx. 8 kilograms, to provide space for the toms. Toms will grow to slaughter weight at 16 weeks. The toms average weight will be between 15 and 16 kilograms.

3. Transport
    Toms and poults need specialized transport, as broiler cages will not be convenient due to their size and weight.


7-wks full body toms


3-day old poults


3-wks old flock


14-wks poults


18-wks old toms

Mapping production process

Stall equipment

Stall equipment

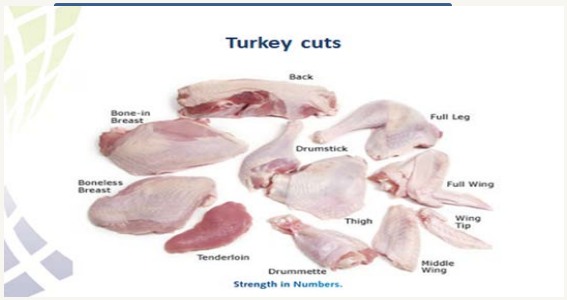
1. Inputs
    a. For the start, broiler feeder equipment and drinkers can be used from broiler houses in floor systems, when duly clean and desinfected. The farm management will need to adjust the height to a for turkeys required distance.
    b. Hygiene systems and good working ventilation equipment are of crucial importantce for turkeys during their whole lifetime.
2. Outputs

Mapping production process

Processing

Slaughtering and meat processing

1. Inputs
    a. Slaughter and processing equipment investment for turkeys is at similar cost and not more expensive than for broilers.
    b. Broiler slaugher equipment is unfortunately not convenient for turkeys but the purchase of turkey slaughter & processing equipment is not desired yet, caused by the fact that a critical size of equipment need to be installed for efficiency reasons.
    c. The partners concluded to slaughter en process turkeys manually during a testing period.
    d. Hybrid Turkeys will provide specific knowledge during the test period.
2. Outputs
    1. Whole turkey
    2. Cut turkey parts



Mapping production process

Operational procedures & work flows

Operational procedural steps & work flows

1. Operational flow
    a. The current project aims at the feasibility evaluation for the introduction of turkey farming and turkey meat consumption in Indonesia. Once the feasibility is checked and approved by our sparring partner PT. Ciomas Adasatwa /Japfa Comfeed Group, Hybrid Turkeys/Grelier wants to set-up a test/demo project in Indonesia with her preferred partner PT. Ciomas.
    b. A first step in the procedure is to invite a commercial/technical group of Japfa Comfeet to France or Canada for a study trip. In this way the decision makers of Japfa can verify all activities in the integration with their own eyes.
    c. When the study trip turns out to be positive, the consortium will draft together a plan to prepare a test turkey farm in one of the premises of Japfa Comfeed. The GO decision to start a demonstration project will come from PT. Ciomas and Japfa.
    d. The next step will be to check the import requirements and applicable law/restrictions to import day old turkeys into Indonesia. PT. Clarity (Bettina Cavenagh) can assist in this process.
    e. The test/demonstration project will be performed in close cooperation between Hendrix Genetics Turkeys and PT. Ciomas.
    f. Fot the realiszation of a demonstration project we will be highly dependable on support of the Dutch government (DHK programme)

2. Outputs
    a. The most important output will be the proof of the feasibility of turkey farming and turkey meat consumption in Indonesia . The long term indirect output is a possible future extension to other similar countries in South-East Asia.
    b. The direct output will be turkey meat cuts which will be brought to the consumer market via outlets and supermarkets in the main cities of Indonesia spread over a 2 months period.

Mapping production process

Operational procedures & work flows

Operational procedural steps & work flows

3. Timing

   For the muslim consumers in Indonesia the timing of the availability of turkey meat will not be very important.

   The availability during the Christmas period and or for Thanksgiving Day would be a nice added value in case we target the non-muslim population as a test consumer group as well.

Availability and costs of inputs

Financial feasibility

Technical parameters

1. Farming / rearing (including Feed)

	toms	poults
Mortality rate	10%	7%
Age at killing (days)	112	84
Weight at age of killing	15.5	8.0
Feed intake (kilograms)	31	13

2. Slaughtering and Processing

Dress weight	82%	
Yield percentages	Breastmeat	25.00
	Organs	2.00
	Necks	4.00
	Head	2.00
	Wings	16.00
	Legs	28.00
	Carcass	21.00
	Tails	2.00

Availability and costs of inputs

Financial feasibility

Financial parameters (IDR)

1. Farming / rearing (including Feed)

Egg cost (excl transport)	**16.500**
Feed cost/kg	6.500
Labour cost per day old turkey	900
Housingcost per d.o.t.	5.500
Other direct production costsper d.o.t.	2.950

2. Slaughtering and Processing

Yield of	**Market price/kg**
Breastmeat	57115.38
Organs	16000.00
Necks	16000.00
Head	16000.00
Wings	30000.00
Legs	50000.00
Carcass	5000.00
Tails	13200.00

Availability and costs of inputs

Financial feasibility

Costs and Revenue calculations (IDR000)

1. Farming

COST FOR 4.500 D.O. TURKEY (+Free of Charge)	per day old turkey	per slaughter turkey
Housing cost	5.50	6.01
purchase of day old turkeys	30.41	33.27
feed cost	146.91	160.75
heating/lighting cost per day old poult	0.50	0.55
litter cost per day old poult	0.60	0.66
power	0.55	0.60
labourcost per day old poult	0.90	0.98
vaccination and medication	0.70	0.77
water consumption	0.10	0.11
technical services/poult housed	0.45	0.49
transportation d.o. poults	0.30	0.33
waste/manure removal / cleaning	0.20	0.22
GROSS COSTS	187.12	204.74
REVENUE ASSUMPTIONS		
sale of manure	-	-
other (sales of feedbags)	0.45	0.49
TOTAL REVENUE	0.45	0.49
NET TURKEY COSTS	**186.67**	**204.24**
(SELLING) PRICE PER SLAUGHTER TURKEY	243.08	265.97
OPERATIONAL MARGIN ON FARM LEVEL	**56.0**	**61.2**

Availability and costs of inputs

Financial feasibility

Costs and Revenue calculations

2. Slaughtering and Processing

	per kg liveweight	per kg dressed meat
Turkey poults/toms purchase cost from farming	22.28	27.16
Slaughtering cost/turkey	0.13	0.15
Processing cost/turkey	0.13	0.15
Other costs (transportation from farm)/turkey	0.08	0.10
TOTAL COST AFTER SLAUGHTERING	22.61	27.57
REVENUE FROM POCESSED MEAT		
CUTTED PARTS YIELD :		
Breastmeat	11.71	14.28
Organs	0.26	0.32
Necks	0.52	0.64
Head	0.26	0.32
Wings	3.94	4.80
Legs	11.48	14.00
Carcass	0.86	1.05
Tails	0.22	0.26
TOTAL REVENUE AFTER PROCESSING	29.25	35.67
OPERATIONAL MARGIN AFTER PROCESSING	6.64	8.10

Legal framework

Parent stock, hatching eggs or commercial toms and hens as day-old-chi

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Letter of recomme
Ministry of Ag

Commercial toms and hens as day-old-chicks and parent stock

1. Limitations/restrictions
   There are no restrictions on imports of Day old Turkeys, breeding or parent stock.
   Indonesia will impose import restrictions under special circumstances to prevent the introduction and spread of disease.
2. Permit /licenses
   - Must have an import license from Ministry of Trade which is given once the Ministry of Agriculture has provided a recommendaion letter (RPP)\
3. To get the RPP, the company must go through an administratrative and technical process. Application can be made online or manually

A. Administrative requirements for Companies :
   - National Identity Card or identity of the head of the company;
   - NPWP (tax number)
   - SIUP / Business license which must be in the field of animal husbandry or animal health
   - Certificate of incorporation and amendments
   - Recommendations from provincial offices;
   - A statement of breeding stock in accordance with origin source; and
   - Animal quarantine letter from of the Agriculture Quarantine Agency.

B. Technical requirements :
   - Quality of the DOD livestock
   - Healthy and free of animal diseases;
   - From a country free status of infectious animal diseases; and
   - Satisfy animal health requirements set by the veterinary authority (Health certificate)

Legal framework

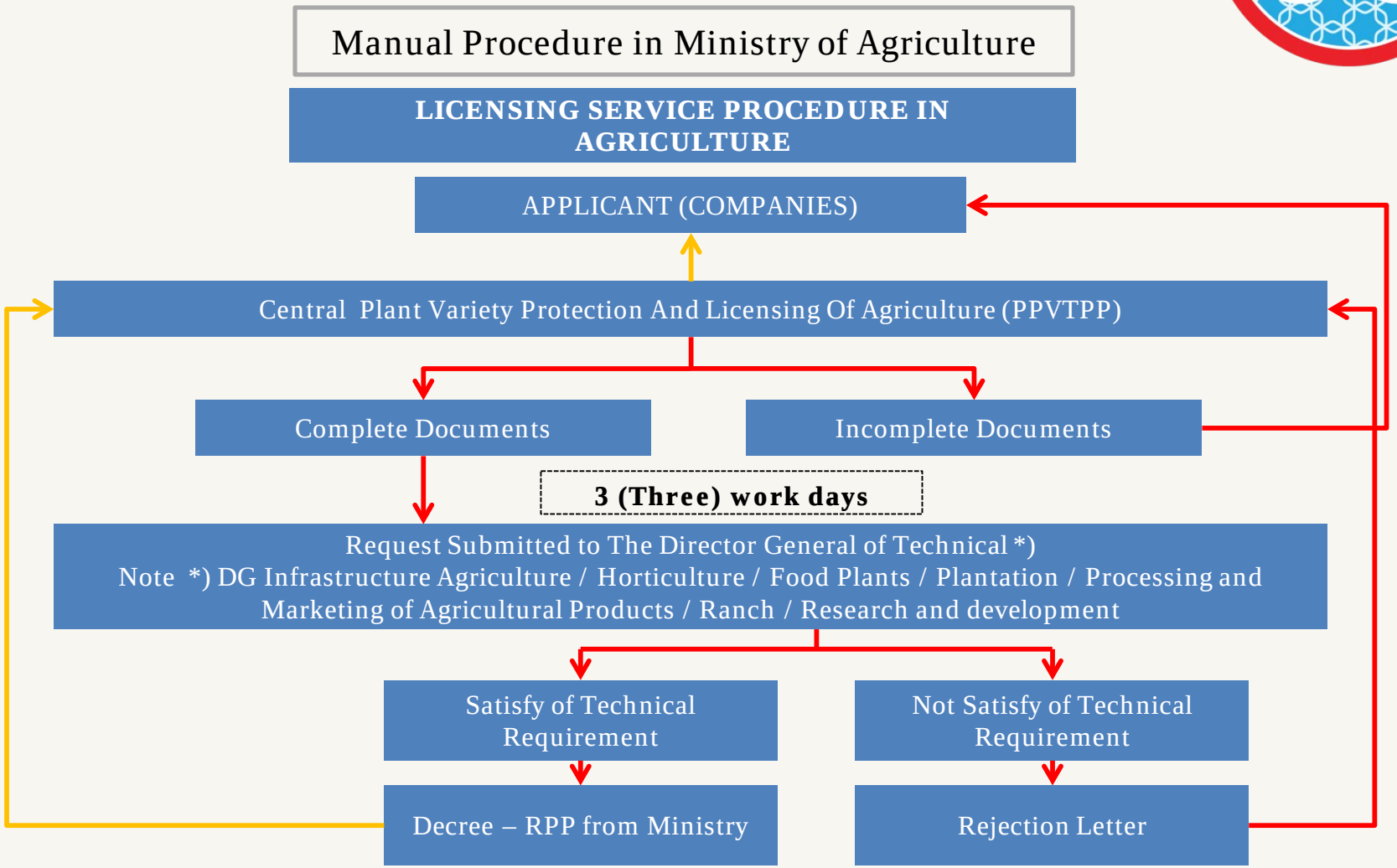
Parent stock, hatching eggs or commercial toms and hens as day-old-chicks

Commercial toms and hens as day-old-chicks and parent stock

2. Ministry of Trade
   a. Once the RPP has been received the company should be submitted it to the Minister of Trade, copied to Head of Agriculture Quarantine Agency, the Director General of Customs and Excise, Ministry of Finance, and Head of Unit for Agriculture Quarantine entry point.
   b. Minister of Trade will then issue the license after approximately 15 days
   c. The
   d. - API (General Importer Identification Number) from Ministry of Trade
      - IT-Hewan (Animal Importer Regristration Number) from Ministry of Trade

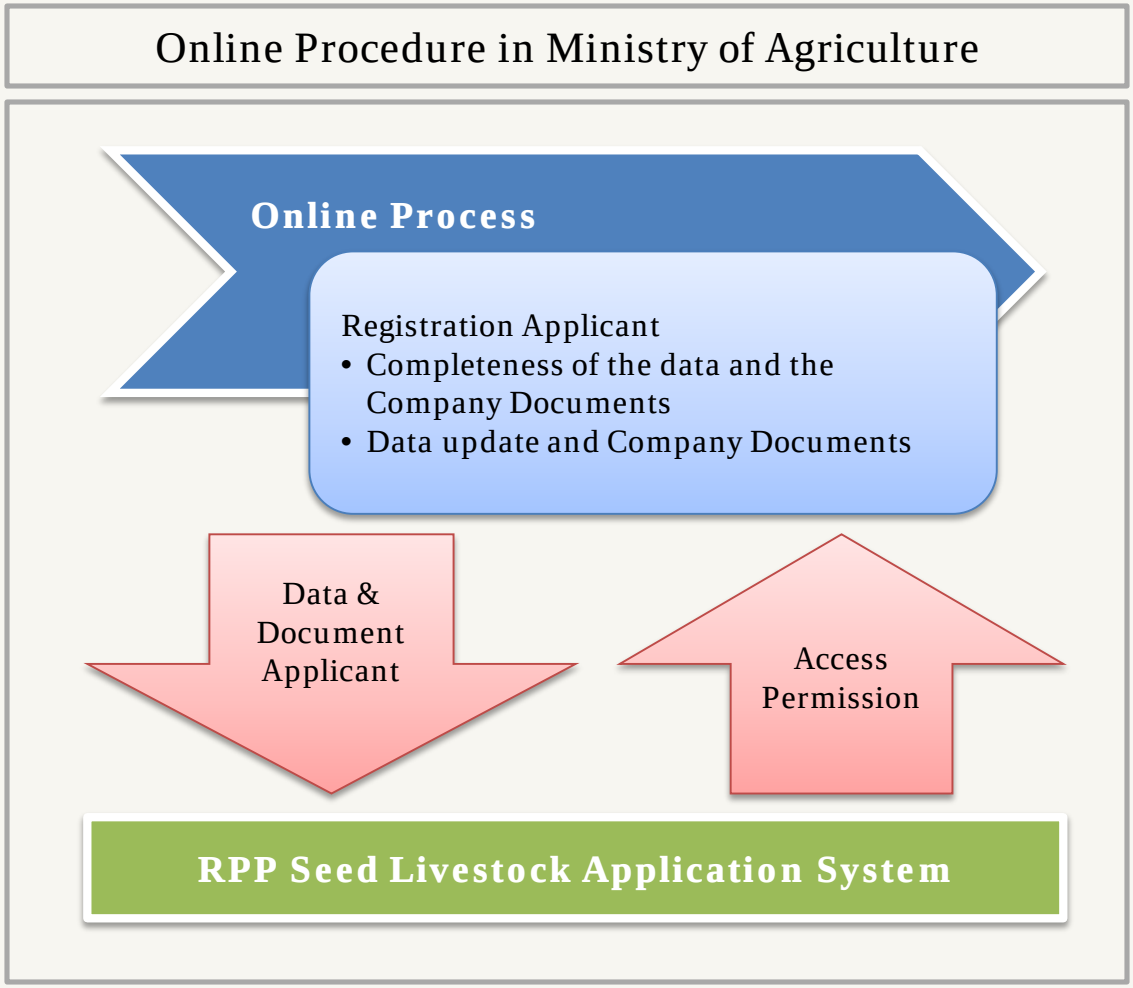
Legal framework

Parent stock, hatching eggs or commercial toms and hens as day-old-chicks



Legal framework

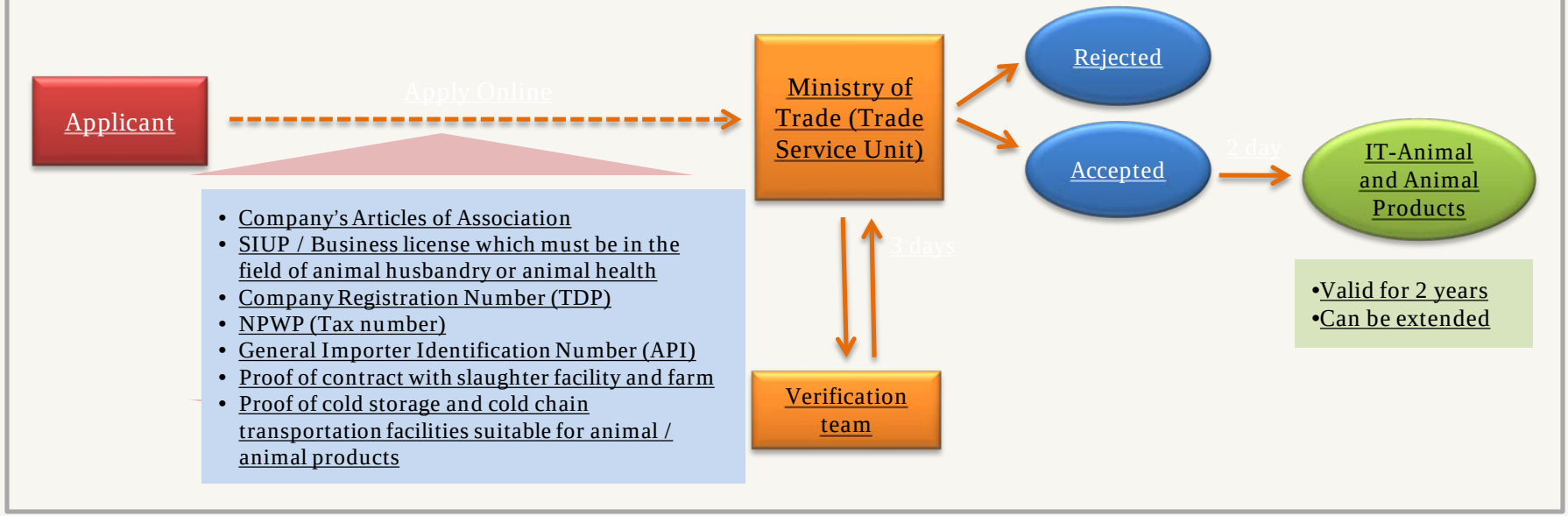
Parent stock, hatching eggs or commercial toms and hens as day-old-chicks



Legal framework

Parent stock, hatching eggs or commercial toms and hens as day-old-chicks

Procedure in Ministry of Trade



Legal framework

Parent stock, hatching eggs or commercial toms and hens as day-old-chicks

Commercial toms and hens as day-old-turkeys

4. Import Taxes

   From Europe, eggs and DOT are not subject to import tariff, while live ducks and carcass are subject to a 5% import tariff.

   If imported from within the Asean trade zone (CEPT) and China then all turkey products are not subject to import tariff

5. Other Legal Issues

   Currently there are no restriction on import of Turkey GPS as it still not a developed market.

If there is an outbreak of disease such as Avian Influenza the Government will impose strict import restrictions to prevent spread of disease. For example In 2013, the Government banned the imports of ALL poultry product from China (including turkets) due to an outbreak of Avian Flu (H7N9). The ban lasted approximately six months.

Import Tax and VAT

	Import			Export
	Import Tariff CEPT / ACFTA	Import Tariff (Normal)	VAT	Export Tariff (All countries)
Egg	0%	0%	0%	0%
DOT	0%	0%	0%	0%
Live Bird	0%	5%	0%	0%
Carcass	0%	5%	0%	0%

About PPP FoodTechIndonesia

Strengthening cooperation between Indonesian & Dutch private sector

Ministry of Foreign Affairs of the Netherlands

- Private-public initiative combining the strengths of Dutch companies active in the poultry value chain.
- 3 year program (July 2013 – June 2016) funded by private sector partners & Dutch Ministry of Foreign Affairs.

Goals:

1. Strengthen the Indonesian poultry sector:
   - I. Stimulating knowledge transfer;
   - II. Improving linkages within the poultry value chain;
   - III. Implementing show-cases of best practices.
2. Establish/expand Dutch presence and investments in Indonesia.

FoodTechIndonesia: project partners

Consortium of Dutch companies active in the poultry value chain

Inputs › Feed › Hatchery › Farmers › Processing › Cooling/ logistics/ packaging › Retail

Van Aarsen - Innovative provider of feed mill design, machinery and construction technology.

Hendrix Genetics - pioneering, value-adding provider of breeding and genetics for animal production.

Trouw Nutrition Indonesia (Nutreco) - Producer of animal nutrition and fish feed (compound feed, young animal feed, premixes, additives).

Pas Reform - Developer of innovative hatchery technologies for the poultry sector.

Van Eck Company Hygiene - Solutions and training for pest control and prevention.

Nijhuis Water Technology - Innovative wastewater solutions, recycling and waste treatment systems.

Linco - Provider of food processing technology. Specialised in cooling techniques and Halal slaughter.

TopKip - Developer of innovative machinery for the poultry industry, including innovative techniques for Halal slaughter.

GEA Food Solutions - Provider of food and energy processing systems.

Zwanenberg Food Group - Prominent European producer of deli meats and a leading producer and exporter of meat preserves.

Larive – Business development advisory company, initiator and coordinator of FoodTechIndonesia.

Minbuza – Dutch Ministry of Economic Affairs. Dutch Ministry of Foreign Affairs

FOODTECHINDONESIA

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