

1. Company, Plant/Factory Profile

1.1 Company profile

1.1.1 History

C.P. Charoen Pokphand Group was established since 1921 in Bangkok, Thailand. This is a multi-business manufacturing industries sector and is one of the most powerful corporations in the field of Thailand Industry-Agriculture and Food production. C.P. Group (Thailand) invested in Vietnam since 1988 with representative office in Ho Chi Minh City. In 1993 established C.P. Vietnam Livestock Co., Ltd, headquarters in Bien Hoa Industrial Zone 2, Bien Hoa City, Dong Nai Province and renamed to C.P. Vietnam Corporation (CPV) in 2011.

Major manufacturing sectors include:

- Animal Feed
- Aqua Feed
- Breeding livestock and poultry
- Aquaculture
- Food processing
- Distribution, retail food

With Integrated Food Production Chain of 4F “*FEED-FARM-FOOD-FOOD OUTLETS*” CPV has become a leader firm in safety food production.

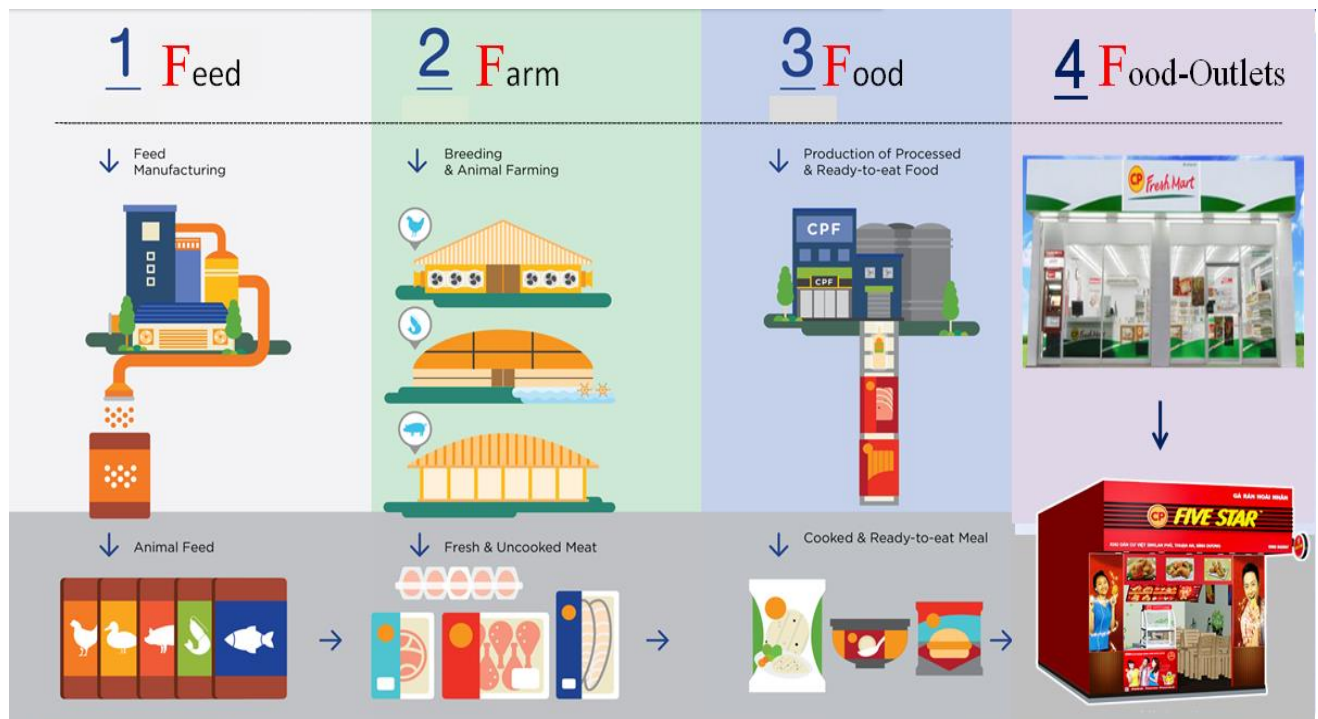


Fig 1.1: Integrated Food Production Chain of 4F

1.1.2. LOGO CPV



Lotus is a symbol of morality, effort and desire to devote the fair values for the community. This is the reason CP chose the lotus as the symbol representing fair values of the corporation.

Fig 1.2: LOGO CPV

1.1.3 CPV MISSION

CP invested in Vietnam with the mission:

- Expand the closed industry- agriculture and food production
- Create potential growth towards to world level
- Leadership in quality and safety food
- Promote initiative and increase efficiency
- Focus on developing human resources
- Responsible for society and environment

1.1.4 CPV VISION

“Kitchen Of The World”

1.1.5 CPV VALUES

The Company strives to build a working culture that encourages everyone to participate in the decision making process, based on trust, honesty, moral principles, business ethics and desire to create values for community. This is done through communicating the Company’s core value:

1. Three Benefits to sustainability: for country, for employees and for company
2. Speed & Quality
3. Simplification
4. Adapt to change
5. Innovativeness
6. Integrity, Honesty & Reciprocity

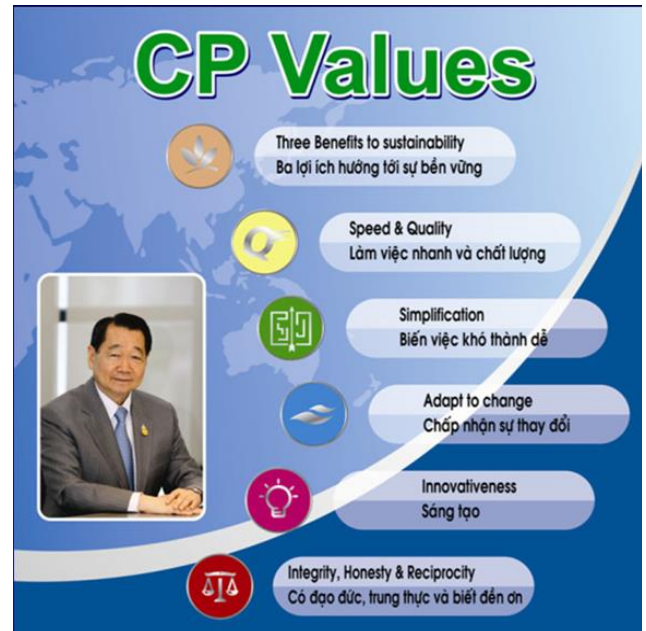


Fig 1.3: CPV Values



1.1.6 CPV Organization

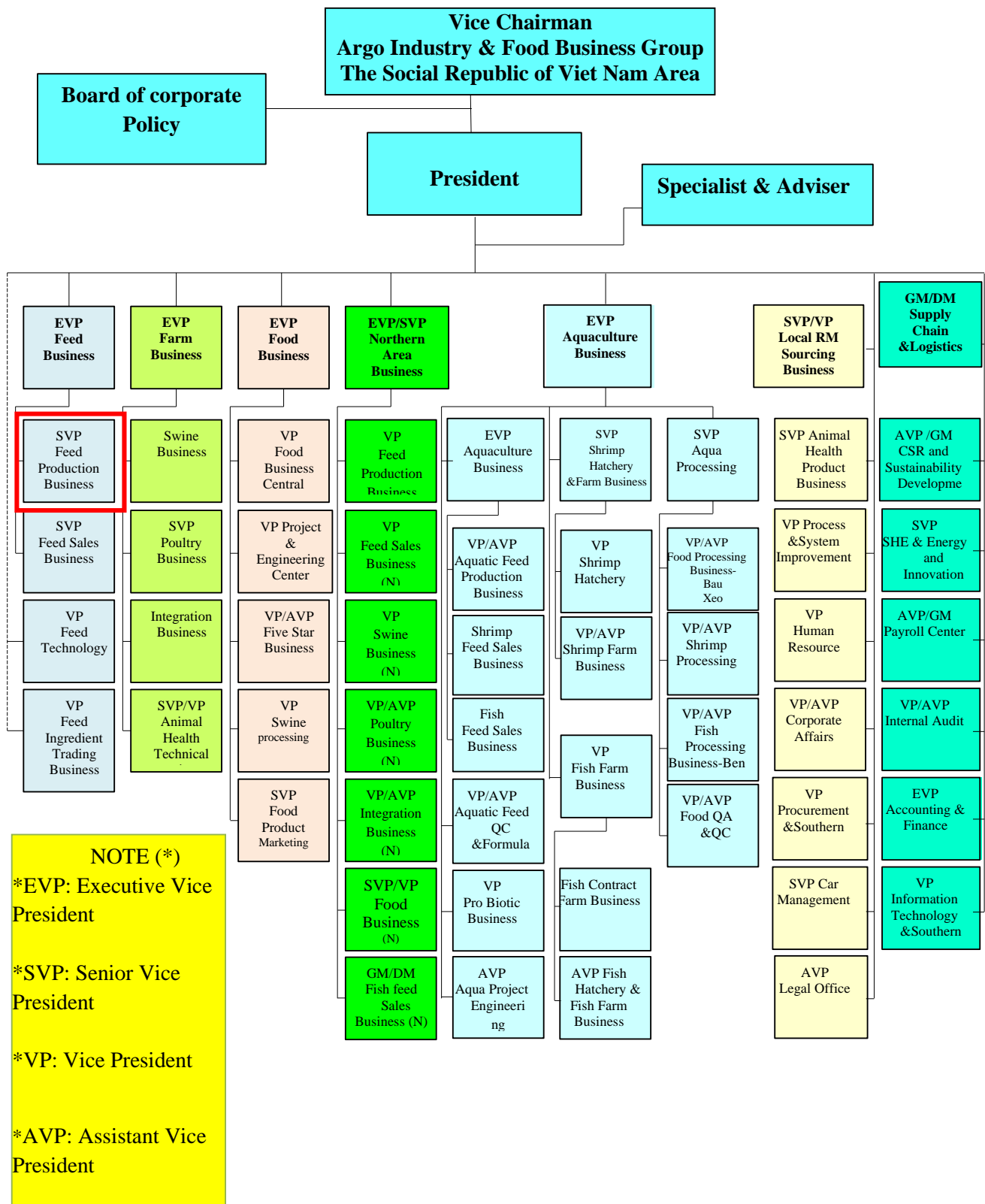


Fig 1.4: CPV Organization



1.2 Feed Business Unit Profile

1.2.1. Overview

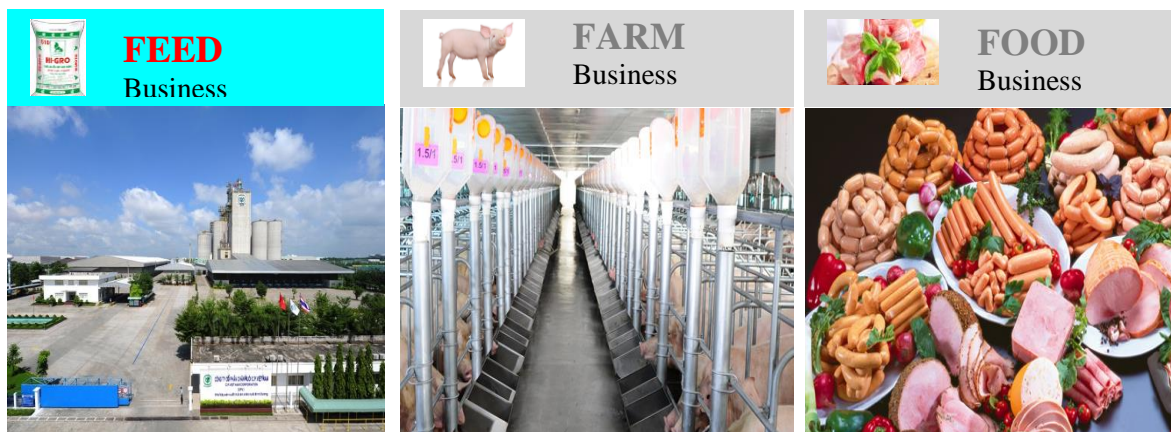


Fig 1.5: Feed Business Unit

Feed business unit is first chain in Integrated Food Production Chain follow the pattern4F of CPV. In 1993 CPV invested to build the first animal feed factory in Vietnam, location in Bien Hoa Industrial Zone 2, Dong Nai Province.

ow, CPV is one of pioneer and leader groups in the production and sale of animal feed in Viet Nam. The major products include: cattle feed (pigs, beef cows, dairy cows), poultry feed (chickens, ducks, quails), aqua feed (Shrimps, fishes). There are three shape of feed: concentrate, mash and pellet appropriate to the characteristics and development stage of each animal type. Products are distributed to farming and dealers systems across the country.

The materials resource to produce animal- aquafeed are tightly controlled by a modern laboratory system with the purpose to control the nutritional value as well as the residue of banned substances in raw materials.

In 2021, Agro feed CPV production accounted for 25% of the national production, leading all feedmills in Viet Nam.

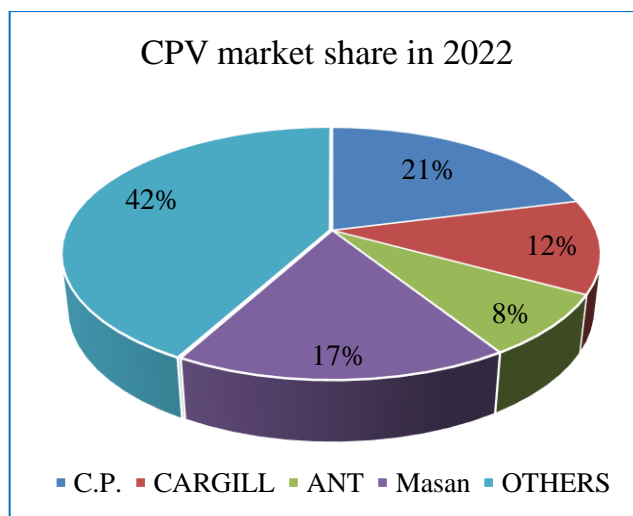


Fig.1.6: Market share of animal feed in Vietnam 2022



1.2.2. CPV Feed Business Unit VISION

“Agro Feed Manufacturer Leader in Vietnam”

1.2.3. CPF Feed Business Unit POLICY

“Produce good quality and safety feed with competitiveness cost; increase feed capacity to support Growth of integrated business Feed-Farm-Food with high technology, environment friendly and sustainable”

1.2.4. Feed Business Unit STRATEGY

1. Implement TPM (Total Productive Maintenance) to increase production efficiency, reduce production cost, develop knowledge and skill of employees.
2. Create standard systems (ISO and HACCP) to provide good quality, safety feed, customer satisfaction service and build safety-healthy workplace, friendly environment.
3. Create continuous improvement system (3i) to increase competitiveness.

1.2.5. Feed Business Unit Organization

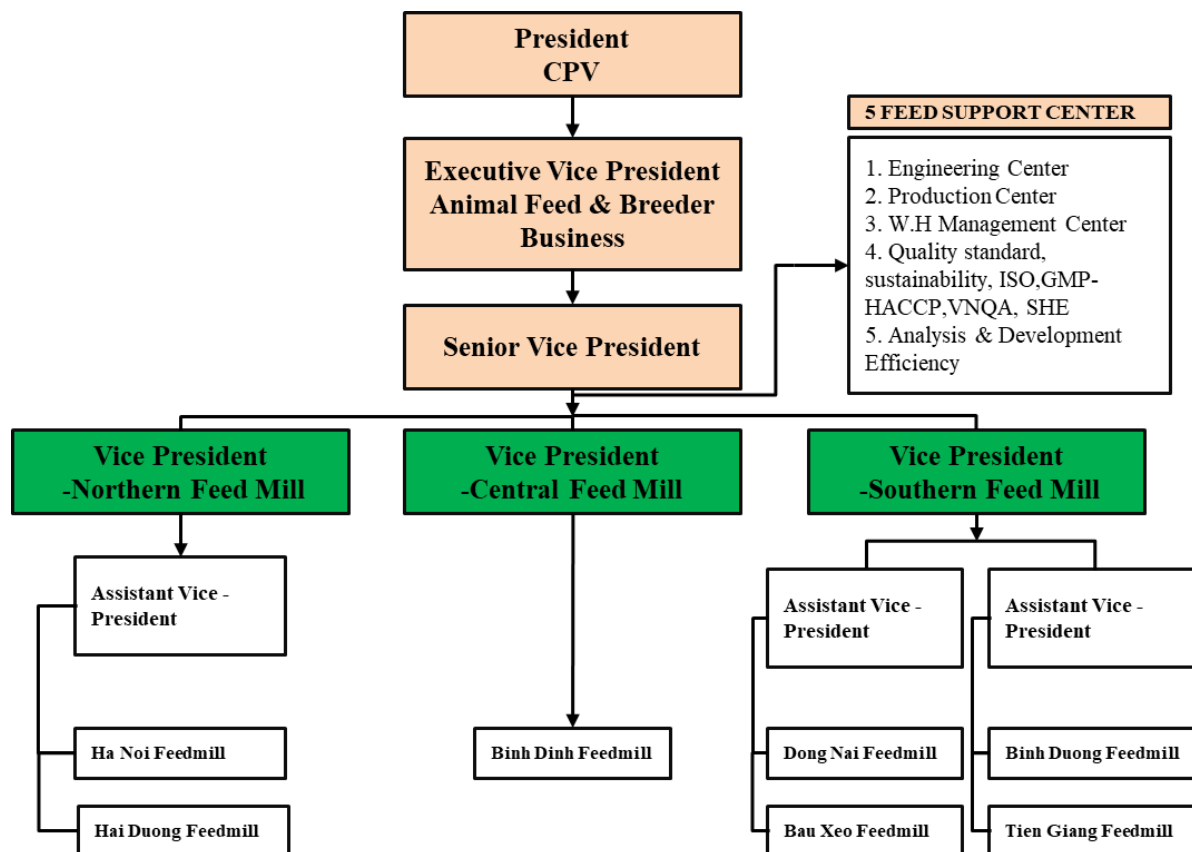
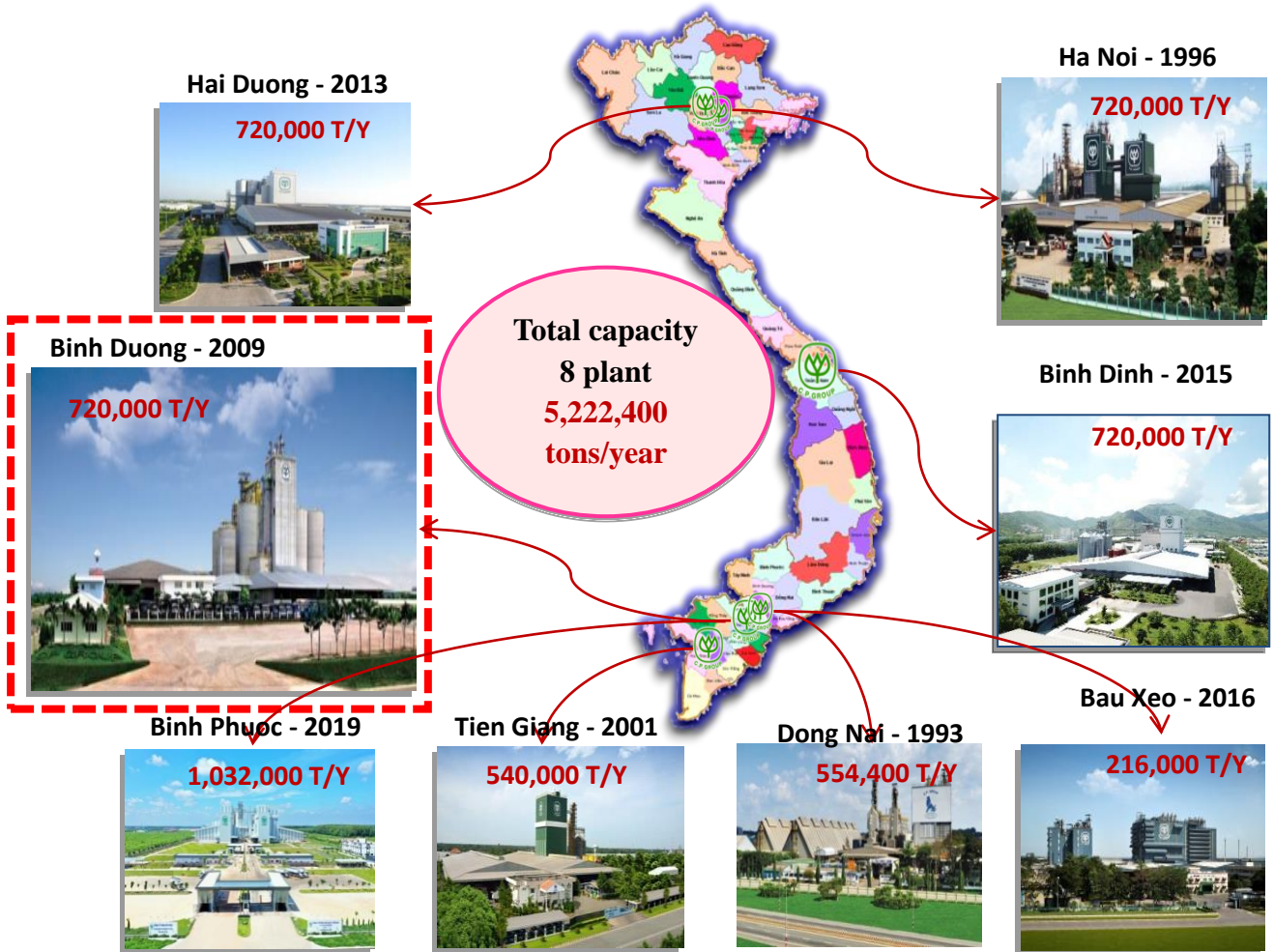


Fig 1.7: Feed Business Organization

1.2.6. CPV Feedmill in Viet Nam

Currently, C.P has 08 feed mills along the country, from the North to the South of Vietnam (Ha Noi, Hai Duong, Binh Dinh, Binh Duong, Dong Nai, Tien Giang, Bau Xeo and Binh Phuoc). With a total annual production capacity of 5,222 million tons / year.



Start Operation	Plant	Symbol	Capacity
1993	Dong Nai	DNI	554,400
1996	Ha Noi	HNI	720,000
2001	Tien Giang	TGG	540,000
2009	Binh Duong	BDG	720,000
2013	Hai Duong	HDG	720,000
2015	Binh Dinh	BDH	720,000
2016	Bau Xeo	BXO	216,000
2019	Binh Phuoc	BPC	1,032,000
Total			5,222,400

Fig 1.8: CPV Feedmill location

1.3. Plant Profile: Binh Duong FEEDMILL

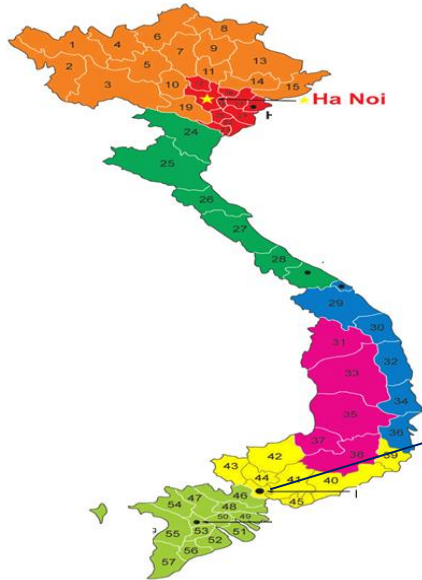
1.3.1. Overview

Company name: C.P Viet Nam Corporation – Binh Duong Branch

Address : Lot M-5-CN, My Phuoc Industrial Zone II, My Phuoc Ward, Ben Cat Town, Binh Duong Province, Vietnam



Area : 88,000 m²
 Start Operation: In 2009
 Product : Animal Feed
 Brands : HIGRO, CP, STAR, NUVO, NASA
 Capacity : 720,000 tons/year
 Employees : 182 persons



Ho Chi Minh City – Binh Duong Feedmill: 53Km

Fig 1.9: Binh Duong Feed Mill location

1.3.2. Main product

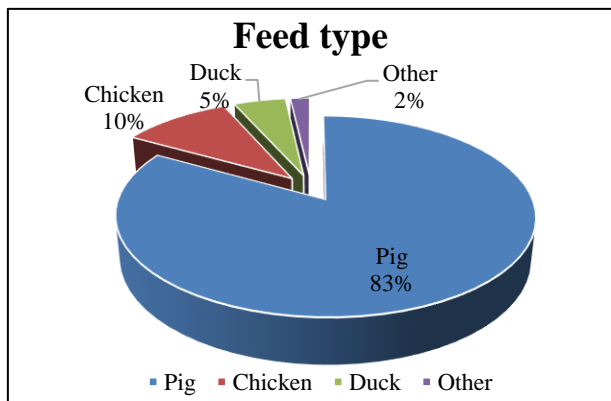


Fig 1.10: Feed type

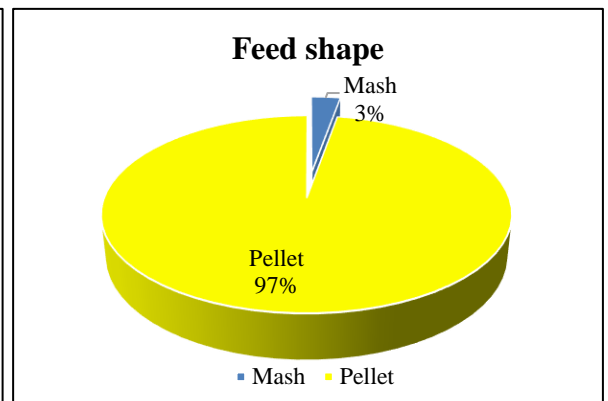


Fig 1.11: Feed shape

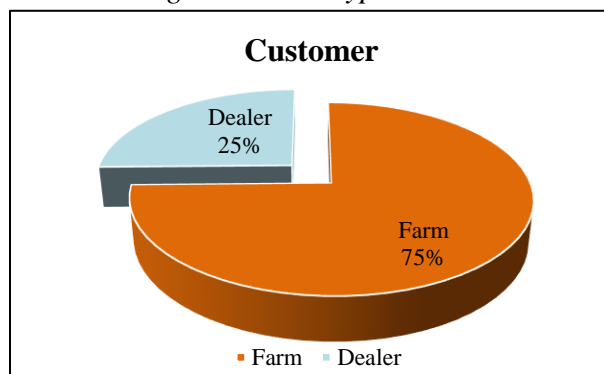


Fig 1.12: Customer

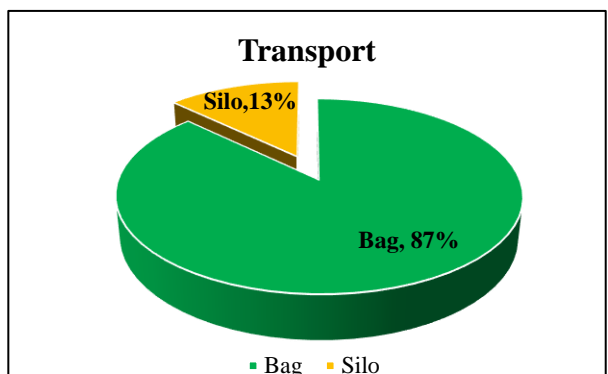


Fig 1.13: Transport



Main products of the BDG plant are Pig feed 74% and Chicken feed 18% besides are other feeds (Duck, Quail& Cow) with main feed shape pellets 95.5%. Currently, we have two customer groups direct farm 67% and dealer 33% with mean of transport are truck bag 94%.

Company-owned brands includes: HI-GRO, CP, STAR, NUVO, NASA.

1.3.3. Production Process

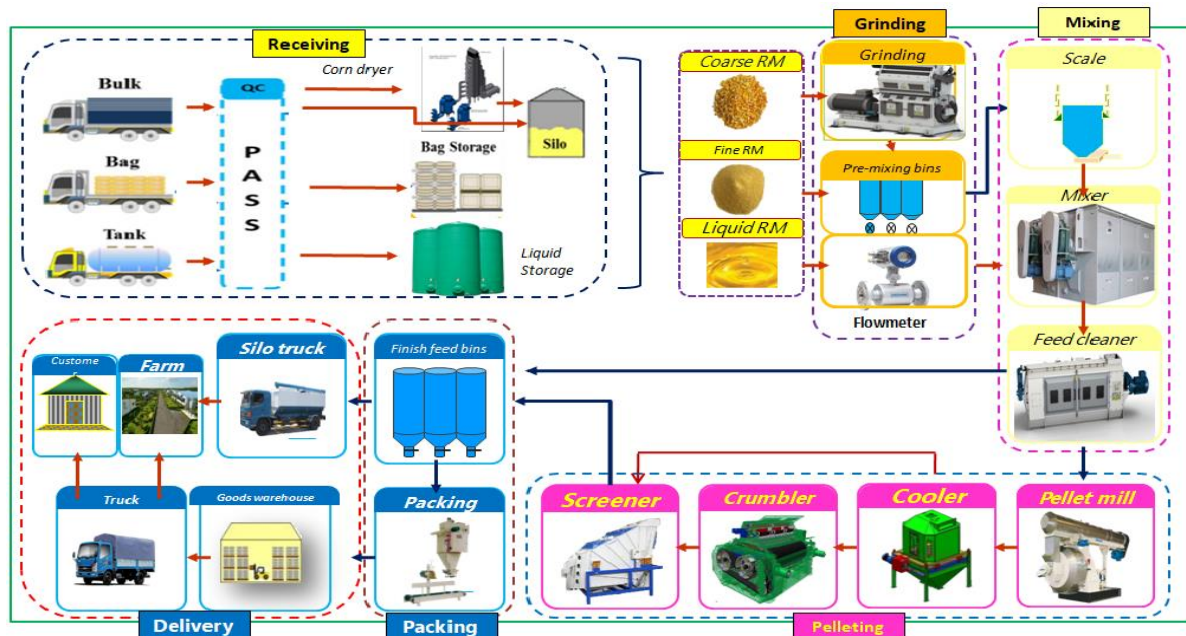


Fig 1.14: Production process

Production system include six main processes: Receiving, Grinding, Mixing, Pelleting, Packing & Delivery. Among of them, mixing is the most important process to ensure correctly ratio mixing of nutritional ingredients and ensure nutritional elements in each feed type meet pet’s growth stage

1.3.4. Main machine

The plant has 1,141 machines, among of them 158 machines rank A (13%), 496 machines rank B (39%) and 609 machines rank C (48%).

No.	Process	Rank A	Rank B	Rank C	Total
1	Receiving	15	140	254	409
2	Grinding	3	44	49	96
3	Mixing	66	92	102	260
4	Pelleting	27	78	133	238
5	Packing	30	91	45	166
6	Delivery	3	20	6	29
7	Other dept	14	31	20	65
Total		158	496	609	1,263

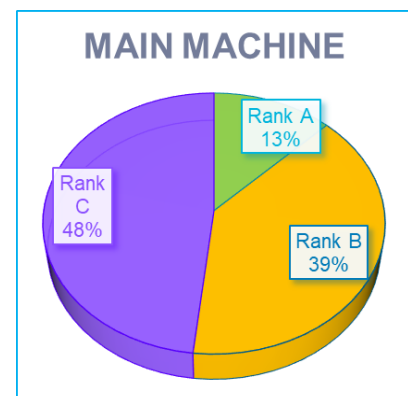


Fig 1.15: Main Machine



1.3.5. BDG Organization

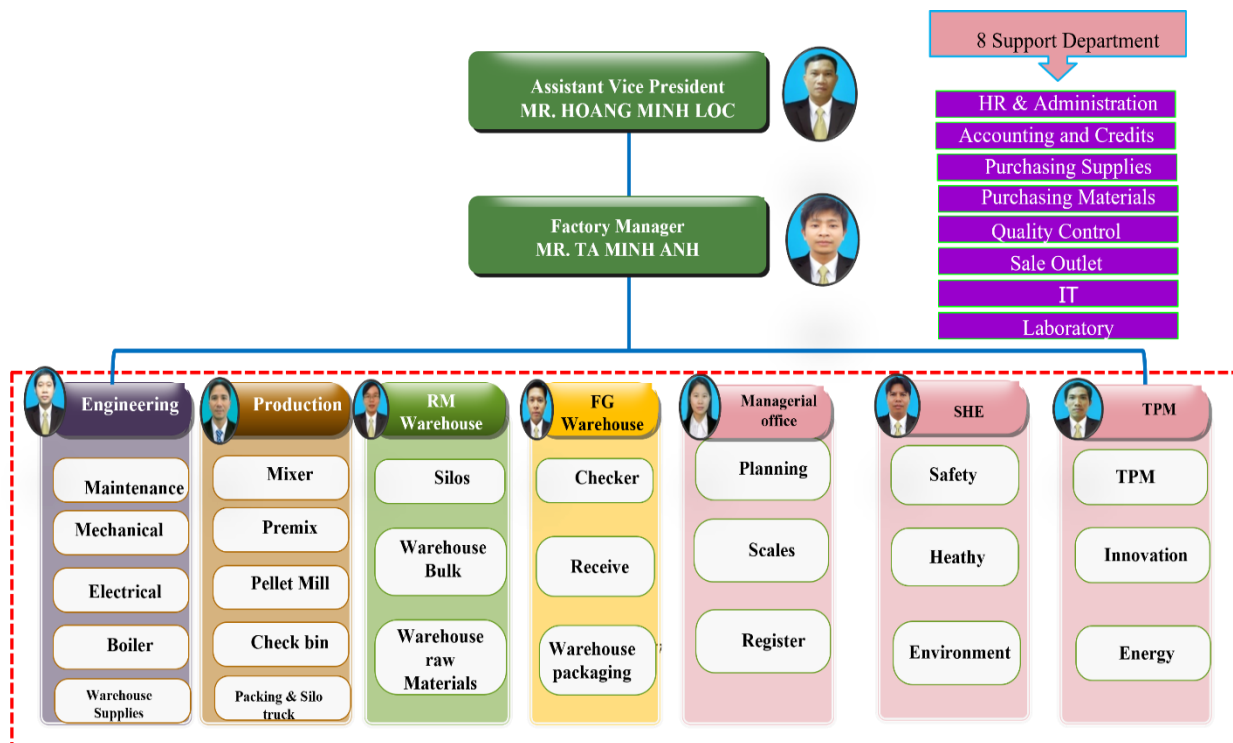


Fig 1.16: BDG Organization

1.3.6. Workforce

No.	Department	AVP	General Manager	Dept Manager	Section Manager	Staff	Worker	TOTAL
1	Managerial	1	1	1		8	9	20
2	Production			1	4	49	14	68
3	Raw Material			1	3	13	1	18
4	Finish Goods			1	2	19	4	26
5	Engineering			1	4	38		43
6	TPM			1		2		3
7	SHE			1		3		4
TOTAL		1	1	7	13	132	28	182

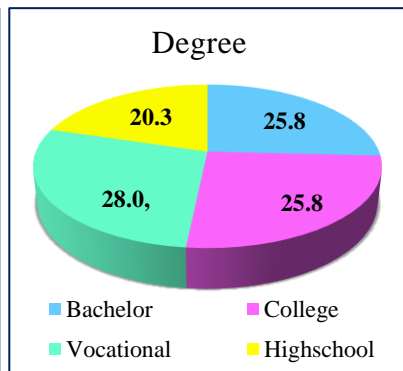
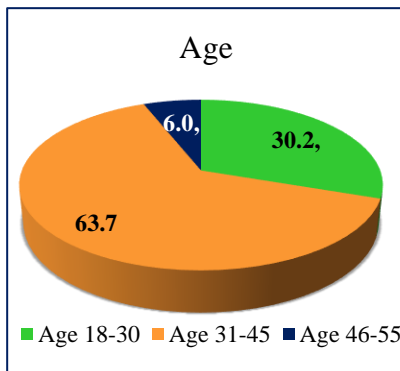
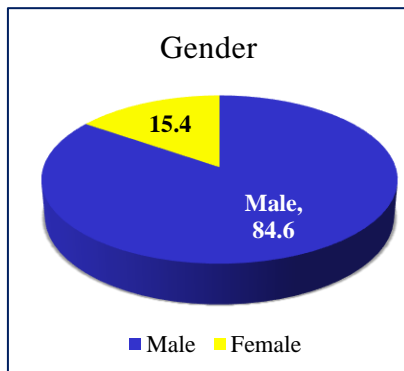


Fig 1.17: Workforce



2. *Milestone on the Journey of Manufacturing Excellence*

Binh Duong Plant started production since 2009. In 2013, the plant achieved the system certifications such as: ISO 9001, ISO 22000, HACCP, GMP, ISO 14001, ISO 50001, SHE Award and National Quality Gold Award (VNQA). However, these systems are not interested in maintenance, knowledge and skills improvement for both operation and maintenance so that occur deteriorated condition, increase production costs, capacity has not met expectations.

Recognizing this situation, Top manager has found many tools to develop employees and improve efficiency. After a while, Top manager realized that TPM-JIPM is the best tool to apply. Therefore, at the end of 2012, Top manager decided to implement TPM -JIPM in Binh Duong Plant with the main objectives:

1. Increase productivity
2. Improve product quality
3. Reduce production cost
4. Enhance service quality
5. Improve safety working place, ensure the health and environmental friendliness
6. Create internal training system

Moreover, Top manager always follow up and monitor the progress of TPM system, realizing the TPM activities of Binh Duong plant gets initially successful so deciding to participate in the TPM Excellence Award - Category A 2018.

After conducted 2 stages assessment from JIPM accessor, we passed and won the TPM Excellence Award - Category A. From 2019, we have replicated TPM implementing to phase 2, focus on expanding collection and solving losses in the supply chain. After 4 years of implementing TPM phase 2, we have achieved many good results, so Top Manager has agreed for Binh Duong Feed Mill apply Award for Excellence in Consistent TPM Commitment in 2023.

3. *Benefits Achieved*

Tangible result

4. Zero Accident from Oct 2021.
5. Production capacity increases from 2,015 tons per day to 2,150 tons per day.
6. Quality rate increases from 99.92% to 99.97%.
7. Saving cost 2.5 M.USD.
8. Delivery performance increases from 87.1% to 93.9%.
9. Tag: 133,908; OPL (One Point Lesson): 43,586; Kaizen:24,479
(Benchmark:2018 – Present:2023).

Intangible result

1. Employee's morale is improved, self-conscious and more relaxed.
2. Working environment is funny, harmonious and cohesive.
3. Employees and customers believe in the company.



4. Key of our Manufacturing Excellence

With the consensus of all employees combining with young- qualified-studious human resource well applied knowledge into actual works. Moreover, with the support of spirit, workforce as well as finances from Top manager help improvement idea implement successfully, contribute to the growth of company.

TPM Award Assessment Achievement Sheet

Company & plant name	C.P Vietnam Corporation – Binh Duong Branch
TPM Slogan/ Objectives	"TPM – Journey to achieve all goals"

Category	Index	Unit	BM (TPM Started or last time awarded)	Actual Status	Target
			2018	2023	2024
S	Number of work-related accidents requiring days off work	Cases/ year	0	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	0	0	0
P	Productivity for main products	Tons/day	2,015	2,150	2,300
P	OEE (or Overall Plant Efficiency)	%	72.7	85.14	87
P	Availability	%	81.3	91.93	92.5
P	Performance Rate	%	89.5	92.65	94.2
P	Quality Products Rate	%	99.92	99.97	99.97
P	Number of breakdowns rank A	Breakdowns/ month	8.5	1.36	1
P	MTBF	Hour	9.23	64.05	100
P	MTTR	Hour	0.87	0.74	0.72
Q	Number of customer complaints	Number/year	7	0	0
Q	In-line defect rate (scrap)	%	0.007	0	0
Q	In-line defect rate (rework)	%	0.073	0	0
C	Cost index	Vnd/ton	154,333	186,967	194,070
D	DIFOT	%	87.1	93.96	95
D	RIFOT	%	72.2	92.0	94
S	Frequency rate	Number of occupational accidents with leave for 1 000 000 worked hours	0	0	0
M	Number of Employee Suggestions (Cumulative)	Number	34,479	50,421	55,000