

## THE ROLE OF FEEDLOT BUSINESS IN BEEF SUPPLY CHAINS IN WEST JAVA INDONESIA

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### Abstract

*The gap of beef supply-demand in West Java, is shown by the contribution of local beef cattle at 17.50% of the total beef cattle slaughtered reached 285,545 heads in 2009. The rest was filled by local cattle from outside West Java, the import of live cattle from Australia and imported beef boxes as much as 35,780 tones (Government of Livestock Services of West Java, 2010). The purposes of this study were: (1) Provide an overview of the role of feedlot business in beef supply chain in West Java (2) To analyze the contribution of local beef cattle, imported live cattle, and beef boxes to meet the beef demand in West Java. The research method is a survey on the beef cattle Feedlot business in West Java. Respondents were the business of feedlot cattle; the terminal cattle check point and stakeholders. Respondents were determined by purposive sampling. The data was crosscheck by focus group discussion, and were analyzed with trend linear, import capacity and supply chain management analysis. The results of this study were: the feedlot company in West Java has a role and contribute to supplying demand for beef that is not able to be met by local cattle production. The Feedlot has a function of business investment in feedlot cattle business, employment, and empowerment of small holder farmers through a business partnership. To meet the consumption of beef in West Java province, its contribution comes from beef boxes imports amounted to 28.28% and beef production of fattening cattle imported 20.22%, local beef from West Java 7.98% and 15.16% comes from outside West Java and beef production is not recorded reached 28.36%.*

**Key words:** Feedlot, Contributions and beef supply chain

### INTRODUCTION

The gap of beef supply-demand in West Java, is shown by the contribution of local beef cattle at 17.50% of the total beef cattle slaughtered reached 285,545 heads in 2009. The rest was filled by local cattle from outside West Java, the import of live cattle from Australia and imported beef boxes as much as 35,780 tones (Government of Livestock Services of West Java, 2010).

According these data, the position of West Java as a national center for beef consumption (as the consumer), which still requires the arrangement of the beef marketing map, function and role of institutions in the beef supply chain systems in West Java. Among the institutional activities that need to be studied existence and has a high leverage on demand supply cattle in West Java are: (a) The business of fattening cattle (Feedlot), (b) The

management of slaughterhouses, and (c) The business of distribution and marketing beef imports (beef box).

In accordance with the conditions of the geo-strategic development of fattening beef cattle, in the last ten years there have been changes in the business, which was originally developed in Lampung province is now likely to move to West Java. The occurrence of these changes, mainly due to various socio-economic factors of business is more profitable to develop Feedlot in West Java as the consumer area.

Supported by a conducive business climate, cattle fattening business has grown following the increase in beef demand in West Java. However, in recent years there have been changes to the importation policy of cattle and frozen beef that will affect the existence and sustainability of Feedlot business. Therefore we need studies on the

existence of supply-demand Feedlot beef in West Java, as an input for further policy

The purposes of this study were: (1) Provide an overview of the role of feedlot business in beef supply chain in West Java (2) To analyze the contribution of local beef cattle, imported live cattle, and beef boxes to meet the beef demand in West Java.

**MATERIAL AND METHOD**

The research method is a survey of feedlot business in West Java. Respondents in this study include the business of feedlot, the check point and stakeholder. To cross check the data by the Focus Group Discussions. Respondents determined by purposive sampling. Data were analyzed with linear trends, analysis of import capacity and supply chain management.

**RESULTS AND DISCUSSIONS**

**Beef Value Chain**

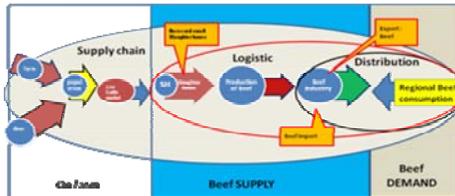


Fig. 1. Value Chain of beef cattle in West Java

Based on the figure 1, beef consumption needs fulfillment is highly dependent on the availability of beef, which has been derived from: 1) the supply of fresh beef production through the process from Abattoirs, and 2) the supply of frozen beef or imported beef boxes. In this case, the total supply of beef production is calculated based on the number of cattle slaughtered at slaughter house, whether recorded or unrecorded (added based on the assumption), while the total supply of beef import (beef box) is calculated from the amount realized by the Meat importer.

**Production Capacity**

According to statistical data, domestic beef production in West Java tends to decrease each year, in 2004 around 79,712

tons to 71,351 in 2006, with a growth rate of minus 1.68% (see Table 1)

Table 1. Beef Production in West Java (in tones)

years	Local cattle	Import cattle	Total
2004	53,162	26,550	79,712
2005	46,782	25,747	72,529
2006	57,990	19,769	77,759
2007	50,646	25,894	76,540
2008	46,175	25,176	71,351
Growth (%)	(1.98)	(1.06)	(1.68)

Source: Livestock Statistics of West Java, 2008

Meanwhile, according to the statistic data more beef production decline caused by decreasing number of beef cattle that enter to the West Java area. This condition is a "warning" for the beef cattle business in West Java. Because, meatball industry as a major beef market have been intervened by beef boxes imported.

**Consumption Capacity of Beef**

The population of West Java in 2010 has reached the number 43,021,826, according to analysis results of beef consumption forecasts in West Java will be experiencing an increase (Table 2). The number of total beef expenditure share (27,155,377 kg/years), equal to the amount of beef consumed in West Java

Table 2. Estimated Beef Consumption

No	Description	value
1	Total meat expenditure (kg)	339,442,207
2	Total beef expenditure (kg)	<b>27,155,377</b>
	equality estimates:	
	▪ carcass (kg)	36,207,169
	▪ Total live weight (kg)	75,431,602
	▪ Total live cattle (heads)	301,726
3	Beef Production	71,351
4	Difference (predicted exported and or for industrial raw materials)	44,195,623

**Import Capacity of Beef**

Basically, the beef imports is a substitution of beef that can not be met by the local beef production and imported live cattle. The beef import are: (1) frozen beef (beef box) or chill meat: carcass, boneless,

and other pieces of beef, (2) Offal or edible meat such as: liver, heart, kidney, spleen, foot and head, and (3) Processed meat: corned beef, sausage, and other. Based on the analysis of the consumption of beef using a correction factor share of expenditure, demand of beef in West Java, the combination of information and data from various sources obtained by slaughtering the number of livestock, production, availability, and consumption of meat in West Java (see Table 3).

Table 3. The Quantity of slaughtering, Production, and Consumption of Beef in West Java

No.	Descriptions	Volume
1	SLAUGHTERING	
	Local Cattle in West Java (heads)	49,982
	Local Cattle non West Java (heads)	97,649
	Import Cattle (heads)	137,869
	Buffalo (heads)	16,633
	<b>Total</b>	<b>302,133</b>
2	MEAT PRODUCTIONS	
	Local Cattle in West Java (tons)	7,391
	Local Cattle non West Java (tons)	14,446
	Import Cattle (tons)	23,895
	Buffalo (tons)	2,213
	<b>Total</b>	<b>47,945</b>
3	Beef import	35,780
4	AVAILABILITY OF MEAT (tons)	83,725
5	meat consumption of west java (2,7 kg/capita/year) (tons)	116,015
6	EXCESS DEMAND (tons)	32,290

Based on table 3, the beef demand of West Java as much as 42 million, and beef consumption 2.7 kg/capita/year, then the beef demand in the year as much as 116,015 tons, while beef production in West Java still insufficiency. Furthermore, the import capacity can be seen in Table 4.

Table 4. The Beef Supply in West Java Year 2009

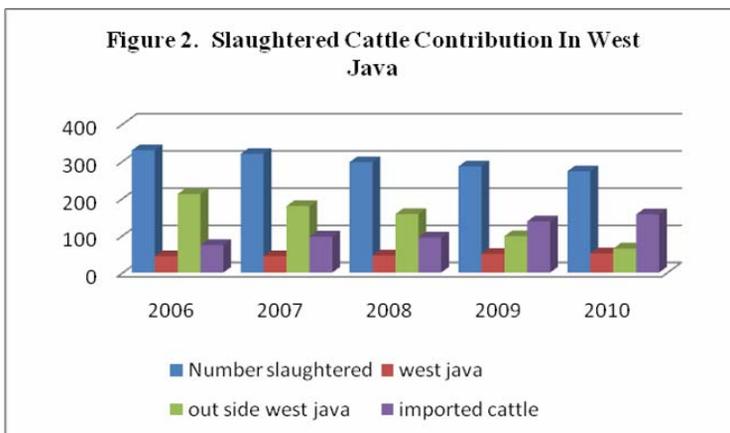
No	Descriptions	(%)
1	Beef from local cattle in West Java	8.28%
2	Beef from local cattle outside West Java	12.45%
3	Beef from imported cattle	20.60%
4	un-recorded Beef	15.94%
5	Beef box (Import)	42.74%
	<b>Total</b>	<b>100.00%</b>

Note:

The beef demand based on the total consumption (116,015 kg / year)

The contribution of each source of cattle slaughter number in West Java, from year to year changes as shown in Figure 2.

In Figure 2, that the number of cattle slaughter at the slaughterhouse in West Java in the last five years has decreased, in line with the declining supply of local beef cattle from outside West Java in the same period. It's indicates that the Province of West Java is highly dependent on supplies of local cattle from outside West Java.



Enabling factors more limited supply of cattle among them:

- a) The cattle migration to and from West Java is very volatile and unpredictable, situational, and more determined by the role of traders in the cattle trade mechanism.
- b) The farmer of local cattle in the producers area haven't a business pattern, and population structure in a clear and orderly, so the selling of cattle owned was determined by the Orion, and as their needs.
- c) The existence of other effects of implementation of government program in achieving self sufficiency in beef, through a variety of procurement activities, and improvement of beef cattle population in the country, among others: the rescue of productive cows in the breeding areas.

Therefore, the provision of local cattle supply from outside West Java, unpredicted with certainty, even monitoring intake of cattle is also facing obstacles. Based on observations on both Check Point (Losari Cirebon, and Banjar), the actors of cattle entries is Traders or Orion, and not a farmer (producers), so it haven't certainty of supply. As well as the existence of livestock check-point in Losari Cirebon that are unable to capture the data of cattle entry into West Java, as a whole since the opening of a toll road in Cirebon before the check point locations, so many cattle trucks that are not through the check point.

The supply capacity of local cattle from West Java is likely to increase. This was in line with increased activity of artificial insemination and breeding cattle by the farmers groups. In addition, the farmers in West Java still can be monitored and accessed by the local Livestock Government officials. As well as cattle import capacity

can easily be predicted and managed through granting approvals and import permits, in accordance with the business-plan every Feedlotter, that in the last five years the number of imported cattle is increasing

**The Role and Existence Feedlot**

The alternative of imported commodities in order to provide for beef in West Java, at least there are 4 kinds, ie: imports of ready for slaughtered cattle, feeder cattle, beef boxes, processed beef product. Import policy on all four of these commodities should be based on consideration of the potential added value (social benefits, and profit) received by government, society, and business actors. Imports of cattle going to have the greatest added value compared with other commodities value-added opportunities. Opportunities for value-added of the activities of fourth importation of these commodities can be seen in Table 5.

Table 5. Added Value in Various Agribusiness Subsystem Based on Imported Commodities

Kinds of Comodities	value-added opportunities			Score
	On farm	Slaughter house	Industry	
Ready for slaughtered cattle	-	+	+	2
Feeder cattle	+	+	+	3
Beef boxes	-	-	+	1
Processed beef Products	-	-	-	0

Based on the above description, in regulating the import capacity, cattle turned out to be the best decision alternative in fulfilling the needs of beef cattle in West Java. This was implies the existence feedloter capable of import activity, fattening, and trade is quite important. Thus Feedloter company has four roles that is, techno-socio-economic-environmental (Figure 3).

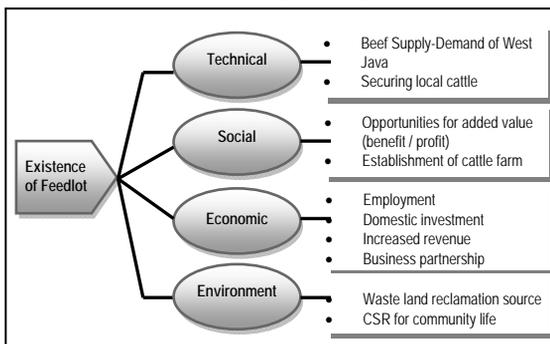


Figure 3. The Role off Existence Feedlot in West Java

Technically related to the contribution to supply-demand of beef in West Java, and securing local cattle. The socio-economic, value-added opportunities derived from the employment activity on the fattening, slaughterhouse and meat processing industries. Based on previous data, on 13 beef cattle fattening enterprise is able to absorb 1,024 workers. This means that the value added to on farm is big enough and felt by many people, and the macro level will

contribute to the economic development of West Java.

Eleven Companies feedlot in West Java, who are members of the Forum, already have investment and business licenses with a total capacity of 89,930 heads (the carrying capacity of 70,330 heads), on 13 locations in 7 districts. Economically of the thirteen firms had an increase in domestic investment, in the stable investment value of more than IDR 375 billion, as shown in Table 6.

Table 6. Total Value of Investment, and Labor Absorption by Feedlot Firm

No	Company Name	Investment (IDR billion)	Labor
1	PT. Agrisatwa Jaya Kencana	30	100
2	PT. Kariyana Gita Utama	75	137
3	PT. Lembu Jantan Perkasa	25	194
4	PT. Pasir Tengah	12	125
5	PT. Widodo Makmur	21	35
6	PT. Andini Karya Makmur	25	28
7	PT. Andini Perkasa Sejahtera	35	22
8	PT. Kadilia Lestari Jaya	35	63
9	PT. Andini Persada Sejahtera	60	120
10	PT. Citra Agro Buana Semesta	31,5	200
11	PT. Bina mentari Tunggal	30	na
	<b>Total</b>	<b>379.5</b>	<b>1,024</b>

On the other hand, feedlot has also been able to develop the partnership with the community of small holder beef cattle farmers. The pattern of partnership is sufficient to provide an opportunity for farmers to conduct fattening beef cattle under assisted of feedlot company. Pattern of this partnership to improve the role of feedlot in labor absorption, and will have an impact on increasing revenues, and is expected to be better able to develop the rural economy.

## CONCLUSION

The results of this study were: the feedlot company in West Java has a role and contribute to supplying demand for beef that is not able to be met by local cattle production. The Feedlot has a function of business investment in feedlot cattle business, employment, and empowerment of small holder farmers through a business partnership. To meet the consumption of beef in West Java province, its contribution comes from beef boxes imports amounted to

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