

CHAPTER II

LITERATURE REVIEW

2.1 Previous Studies

In order to get information and further understanding about this research, the researcher took some research similar to this study as follows:

- a. Bambang Winarso (2014) conducted a study titled Realization of the regional programme for the development of beef cattle breeding to support national beef self sufficiency. This research is aimed to know how does the local government respond to the Indonesian beef self sufficiency program, and what programs conducted by local government to support it. The researcher used qualitative method with case study technique. The data collected from farmers in the research location using questionnaires, interviews, and observations. They have found that local governments have different responds to gain beef self sufficiency, such as East Java Province Government conducted “Berlian” (Beranak 5 juta dalam setahun), they have target to increase the cattle population up to five millions in a year; Bali Province Government have “Simantri” (Sistem Pengembangan Pertanian Terintegrasi), they have tried to integrate the agricultural development in order to get the optimal result; and West Java Province which focused in cattle breeding development program. All the various actions taken showed that local government have determinant role in supporting beef self sufficiency program.
- b. Hasmini, Ratna Wimindi Asmarantakar and Juniar Atmakusuma (2011) carried out a study titled dynamic model of national beef supplying system.

They aimed this study to assess whether national program on beef self sufficiency could be achieved at 2014. Using quantitative method version computer program validated by mean absolute percentage error, this research got some findings as followed: national beef self sufficiency would not be achieved at 2014 if government just conduct the regular program (scenario I); national beef self sufficiency would be achieved if government increase cattle population by reducing the local cattle slaughtering and expanding cattle breeding by conducting artificial insemination (scenario II); National beef self sufficiency could not be achieved if, people consumption rate is higher than the supply produced in scenario II (Scenario III). This research confirmed many feasibilities that could be conducted for reaching national beef self sufficiency.

- c. Rochadi Tawaf and Hasni Arief (2011) has conducted a research titled strategical approach of National beef supply in Indonesia. This research is aimed to determine the conditions of domestic product supplies, beef import quota, live feeder cattle and beef demand; the beef distribution flows from producer region to consumer area; and the factors affected to the availability of national beef supply. The research used qualitative method, the data analyzed by descriptive analysis. The result of this research are explained as follows: cattle, cows and buffalo's population was determined could not support national beef self sufficiency program; beef supply depends on 3 critical points, in farming supplies, slaughterhouse logistic, and beef distribution; factors involved in beef accessibility are: price (38,8%), demand (25,56%), cattle import quota (18,83%), feeding supporting system

(15,93%); on contrary, the data informed that farmers quantity did not affect to the beef supply in Indonesia, and the export quantity too.

- d. Ashari et al (2012) conducted a study titled “ Beef Self Sufficiency Dynamics: revisiting its concept and implementation”. This study tried to analyze Indonesian Beef self Sufficiency . Started by the efforts to achieve beef self-sufficiency deal with a dynamic ranging from concept, organization, supporting documents, and funding system. Those improvements were done to reach the self sufficiency target in 2014. Nevertheless, the opportunity to succeed on beef cattle sufficiency in 2014 is still questionable. The program concept determines the effectiveness and efficiency the program objectives. This paper aims to review critically all available concepts of beef cattle self sufficiency whether has been implemented by the government. Beef self-sufficiency program 2014 was designed in three scenarios using supporting data of agribusiness of beef cattle in Indonesia namely optimistic, most likely and pessimistic. National budget was the main funding source for beef cattle self-sufficiency program 2014, however the allocation was not in accordance with the provincial potentials. Moreover, the fund was allocated to non-prioritized province and 63.5 per cent was in term of direct transfer or in kind grant. Regarding the limited budget and time to achieve the self sufficiency, it is strongly recommended to focus on 6 main activities namely: (1) development of breeding and fattening local live cattle, (2) optimization of artificial insemination and intensification of natural mating, (3) establishment and development of feed and drinking water, (4) downfall of reproduction disturbance and incremental service of animals health, (5) rescue of

productive female livestock, and (6) stock regulation of live cattle and beef through import control. Accelerating effort of beef self sufficiency program 2014 needs strong commitment among stakeholders to achieve the targets effectively and efficiently.

- e. Hano Hanafi, Kurnianita and D.H. Susanti (2011) carried out a research titled Assesment of Farmer response to beef self sufficiency program 2014 in Yogyakarta. This research is aimed to know how far the respond of farmers in Yogyakarta to the implementaion of self sufficiency program. This research used quantitative method, it is a likert scale: low scale, medium and high purposive. The result of the research will be explained as follows: Farmers of different region showed various responds such as described: The farmers of Gunungkidul (50%) and Bantul (54,6%) said they have no idea about national beef sufficiency program, Sleman farmers (66,7%) agree with the program, and the farmers of Gunung Kidul (60%) and Bantul 63,6% are not sure with the program; The various responds caused by the variability of educational background, experiences, and social economic levels; sustainable partnership farming program from government is needed; and support of government, private sectors and rational budget.
- f. Matondang and Rosdiana (2013) carried out a study titled Strategic Steps in Achieving Beef Self-Sufficiency in 2014. This research described that Beef self-sufficiency in 2014 can be achieved by establishing national cattle breeding region, including cattle breeding and purification of local cattle and development of commercial cattle (feeder), and development of integrated beef cattle farming and beef cattle in new areas and small islands. Feed

supply in sustainable manner is a crucial aspect in beef cattle development. Measures need to be implemented to ensure the national feed resilience, including: 1) implementation of export rates of feed raw materials, 2) establishment of a buffer institution of feed raw materials, 3) development of a cooperation between regions of livestock intensive areas but do not have the land for feed source or vice versa, 4) development of forage production zone and animal health in rural areas, 5) mapping and revitalization of pasture in West Nusa Tenggara, East Nusa Tenggara, and South Sulawesi, as well as opening new grazing areas, 6) development of mechanized feed systems, 7) price subsidies for feed materials, 8) structuring the marketing of feed raw materials, and 9) development of a national feed information system. Institutions greatly influenced the success of beef self-sufficiency so institutional arrangement related to coordination between sectors, between regions, and between stakeholders supported the legislation is needed to increase national cattle population. Diversification of meat sources that its production process requires a shorter time is expected to decrease the rate of beef cattle slaughtering.

- g. Nyak Ilham (2007) has carried out a study titled "Policy alternative increasing Indonesian livestock PDB growth". This research is aimed: (i) to assess livestock commodities potential for new growth of livestock sub sector and (ii) to plan strategic development of commodities potential for new growth of the sub sector. Based on the growth trend of GDP and its multiplier effect, livestock sub sector is a potential resource for new source of agricultural growth sector.. The determination of commodity priority was based on its shares to the GDP of livestock sub sector, roles of the

commodities on income distribution, and their market potentials. The results showed that the commodity priorities were beef cattle, broiler, and layer. The development strategy should include the role of not only institutions under the Directorate General of Livestock Services, but also other institutions under Ministry of Agriculture and other related institutions. The strategy should not only based on livestock technical aspects, but also institution and communication aspects.

- h. Hamdi Mayulu, Sunarso, C. Imam Sutrisno, dan Sumarsono (2010) conducted a study titled "Beef cattle development policy in Indonesia". Efforts have been made to increase productivity, production and population of beef cattle in Indonesia to support meat sufficiency program in 2010 that has been revised to be achieved by 2014. It is expected that the domestic meat production could contribute 90–95% to the national meat demand. Development of beef cattle needs to be done through a sustainable approach, supported by feed industry through optimizing the utilization of local raw materials and integrated pattern. In fact the development of beef cattle had not yet met the domestic needs for meat, including vulnerable to disease. This may be caused by various weaknesses in beef cattle development system. Therefore, efforts are necessary to find out the models of beef cattle development that are suitable to and benefited the community. The government should submit to the public how the farms future through a free market mechanism. Government role is stressed on service and building the regions for crucial problems solving so that the market mechanism can be activated. Animal husbandry and agroindustries development would open employment opportunities and

wide-open business. The policy implications of this idea are the roadmap necessary to create a national livestock development and described in detail in every area of livestock development.

- i. An Alternative Approach To Meet Beef Self-Sufficiency In West Papua. S. Hartono And T.W. Widayati (2011). The main objective of this research is to present an alternative approach to meet beef self sufficiency in West Papua, Indonesia. It mainly focuses on calculating the needed number of productive cows to enhance beef production in the province. Out of the total farmer households in Manokwari, Indonesia, 189 farmer-respondents were selected as samples of the study. Selection of the sample was based on the number of cattle kept in every age group (less than one (<1) year old; one to two (1-2) years old, and more than two (>2) years old and the number of productive cows. Secondary data came from the time series data of the number of slaughtered cattle vis-à-vis the population of all districts in West Papua Province from 1980-2008. Data were analyzed using the Partial Adjustment Model (PAM) and Ordinary Least Square (OLS) method. Results of the study showed that beef self-sufficiency in West Papua depend on the availability of the number of productive female cattle to produce ready-slaughtered-bull in the previous year. Particularly for West Papua, to produce one unit of bull in the next –year, with the assumption that cattle mortality is 4.92%, a number of 2.38 animal units AU of productive cows must be provided in the previous two (2) years.

Tabel 2.1. Prior Studies

No.	Tittle, Researcher, Year	Objectives	Research methods and output	Findings
1.	Realization of The Regional Programme for The Development of Beef Cattle Breeding to Support National Self Sufficiency, Bambang Winarso, 2011	<ul style="list-style-type: none"> - To know how does local government respond to National Beef Self Sufficiency - What program conducted by Local Government to National Beef Self Sufficiency 	<ul style="list-style-type: none"> - Qualitative: case study - Different responds/actions taken by local government to support National Beef Self Sufficiency 	The findings confirmed that local government has prominent support for National Beef self sufficiency. It emphasized the importance of local government's role in supporting beef self sufficiency.
2.	The Dynamic Model National Beef Supplying System, Hasmini, Ratna Wimindi, Asmarantaka, & Juniar Atmakusuma, 2011	<ul style="list-style-type: none"> - To asses whether national program on beef self sufficiency could be achieved in 2014 	<ul style="list-style-type: none"> - Quantitative: versim computer program validated by mean absolute percentage error - Proposed 3 feasible scenarios for National Beef Self Sufficiency 	The findings confirmed that many possibilities for reaching National Beef self sufficiency. It means some strategies could be adopted facing different conditions and also considering the local potency of the area.
3.	Strategical Approach National Beef Supply in Indonesia, Rochadi Tawaf & Hasni Arief, 2011	<ul style="list-style-type: none"> - To determine the conditions of supply (domestic production and beef-cattle import live feeder and demand (beef consumption) - To know about the distribution of cattle from production centers to the center of the consumers - The factors that affect the availability of National Beef Supply 	<ul style="list-style-type: none"> - Qualitative - Buffalo and cattle population can not support National Beef Self Sufficiency; beef supply depends on 3 critical points in farming supply (logistic/RPH), beef distribution; factors involved in beef availability are: (price, 38,8%), (demand, 25,56%), (Cattle import, 18, 83%), (Feedings, 15,93%); farmers quantity and export rate don't affect 	The findings confirmed that National Beef Self Sufficiency policy doesn't work optimally due to certain factors. It refer to the possible problem that might be faced in applying development strategy

4.	Beef Self Sufficiency Dynamics: revisiting its concept and implementation Ashari et al (2012)	- to review critically all available concepts of beef cattle self sufficiency whether has been implemented by the government.	This study tried to analyze Indonesian Beef self Sufficiency . Started by the efforts to achieve beef self-sufficiency deal with a dynamic ranging from concept, organization, supporting documents, and funding system. Those improvements were done to reach the self sufficiency target in 2014. Nevertheless, the opportunity to succeed on beef cattle sufficiency in 2014 is still questionable. The program concept determines the effectiveness and efficiency the program objectives. Beef self-sufficiency program 2014 was designed in three scenarios using supporting data of agribusiness of beef cattle in Indonesia namely optimistic, most likely and pessimistic. National budget was the main funding source for beef cattle self-sufficiency program 2014, however the allocation was not in accordance with the provincial potentials. Moreover, the fund was allocated to non-prioritized province and 63.5 per cent was in term of direct transfer or in kind grant. Regarding the limited budget and time to achieve the self sufficiency, it is strongly recommended to focus on 6 main activities namely: (1) development of breeding and fattening local live cattle, (2) optimization of artificial insemination and intensification of natural mating, (3) establishment and development of feed and drinking water, (4) downfall of reproduction disturbance and incremental service of animals health, (5) rescue of productive female livestock, and (6) stock regulation of live cattle and beef through import control. Accelerating effort of beef self	The findings confirmed that there are some problems predicted could hamper the implementation of Indonesian beef self sufficiency 2014. Focusing to the problems might give clearer view for finding alternative strategy in achieving beef self sufficiency.
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			sufficiency program 2014 needs strong commitment among stakeholders to achieve the targets effectively and efficiently	
5.	Assesment of farmer Response to Beef Self Sufficiency Program 2014 in Yogyakarta, Hano Hanafi, Kurnianita, & D.H. Susanti, 2011	- How far the respond of farmers in Yogya about National Beef Self Sufficiency	<ul style="list-style-type: none"> - Quantitative: likert scale (low , medium and high purposive) - Yogyakarta farmers have different respond to National Beef Self Sufficiency - Those different responds caused by various educational background, experiences, economic and social rate 	The findings confirmed that National Beef Self Sufficiency still need more improvements to reach more support of local government and private sectors. Once again it emphasized how important local government's role to develop it's cattle to support beef self sufficiency.
6.	<i>Strategic Steps in Achieving Beef Self-Sufficiency in 2014</i> Rasali H. Matondang dan S. Rusdiana (2013)	To identify strategies established to achieve beef self sufficiency	<ul style="list-style-type: none"> - Qualitative method - Beef self-sufficiency in 2014 can be achieved by establishing national cattle breeding region, including cattle breeding and purification of local cattle and development of commercial cattle (feeder), and development of integrated beef cattle farming and beef cattle in new areas and small islands. Feed supply in sustainable manner is a crucial aspect in beef cattle development. Measures need to be implemented to ensure the national feed resilience, including: 1) implementation of export rates of feed raw materials, 2) establishment of a buffer institution of feed raw materials, 3) development of a cooperation between regions of livestock intensive areas but do not have the land for feed source or vice versa, 4) development of forage production 	The findings confirmed that national cattle population need support of cattle breeding region. Good breeding is an initiative capital to empower cattle development. And this breeding should look at the regional potency.

			<p>zone and animal health in rural areas, 5) mapping and revitalization of pasture in West Nusa Tenggara, East Nusa Tenggara, and South Sulawesi, as well as opening new grazing areas, 6) development of mechanized feed systems, 7) price subsidies for feed materials, 8) structuring the marketing of feed raw materials, and 9) development of a national feed information system. Institutions greatly influenced the success of beef self-sufficiency so institutional arrangement related to coordination between sectors, between regions, and between stakeholders supported the legislation is needed to increase national cattle population. Diversification of meat sources that its production process requires a shorter time is expected to decrease the rate of beef cattle slaughtering.</p>	
7.	<p>Policy alternative increasing Indonesian livestock PDB growth Nyak Ilham <i>Pusat Analisis Sosial Ekonomi dan Kebijakan Pertanian</i> Jalan A./ Yani No. 70, Bogor 16161 (2007)</p>	<p>This paper is aimed: (i) to asses livestock commodities potential for new growth of livestock sub sector and (ii) to plan strategic development of commodities potential for new growth of the sub sector.</p>	<p>Method: Qualitative Based on the growth trend of GDP and its multiplier effect, livestock sub sector is a potential resource for new source of agricultural growth sector. The determination of commodity priority was based on its shares to the GDP of livestock sub sector, roles of the commodities on income distribution, and their market potentials. The results showed that the commodity priorities were beef cattle, broiler, and layer.</p>	<p>The findings confirmed that development strategy should include the role of not only institutions under the Directorate General of Livestock Services, but also other institutions under Ministry of Agriculture and other related institutions. The strategy should not only based on livestock technical aspects, but also institution and communication aspects.</p>

8.	<p>Beef cattle development policy in Indonesia Hamdi Mayulu, Sunarso, C. Imam Sutrisno, dan Sumarsono (2010)</p>	<p>The aims: a. to know the problem faced by beef cattle development system b. to find alternatif development policy meeting beef demand</p>	<p>Qualitative Method. Efforts have been made to increase productivity, production and population of beef cattle in Indonesia to support meat sufficiency program in 2010 that has been revised to be acheived by 2014. It is expected that the domestic meat production could contribute 90–95% to the national meat demand. Development of beef cattle needs to be done through a sustainable approach, supported by feed industry through optimizing the utilization of local raw materials and integrated pattern. In fact the development of beef cattle had not yet met the domestic needs for meat, including vulnerable to disease. This may be caused by various weaknesses in beef cattle development system. Therefore, efforts are necessary to find out the models of beef cattle development that are suitable to and benefited the community. The government should submit to the public how the farms future through a free market mechanism.</p>	<p>The findings confirmed that Government role is stressed on service and building the regions for crucial problems solving so that the market mechanism can be activated. Animal husbandry and agroindustries development would open employment opportunities and wide-open business. The policy implications of this idea are the roadmap necessary to create a national livestock development and described in detail in every area of livestock development.</p>
8.	<p>AN ALTERNATIVE APPROACH TO MEET BEEF SELF-SUFFICIENCY IN WEST PAPUA S. Hartono¹ and T.W. Widayati^{1,2} (2011)</p>	<p>The main objective of this research is to present an alternative approach to meet beef selfsufficiency in West Papua, Indonesia.</p>	<p>Quantitative method Data were analyzed using the Partial Adjustment Model (PAM) and Ordinary Least Square (OLS) method. It mainly focuses on calculating the needed number of productive cattles to enhance beef production in the province. Out of the total farmer households in Manokwari, Indonesia, 189 farmer respondents were selected as samples of the study. Selection of the sample was based on the number of cattle kept in every age group (less than one (<1) year old; one to two (1-2)</p>	<p>The findings confirmed that cattle population growth continuity is very important to meet beef demand. It means, good cattle population revolving system is very important in order to eliminate cattle population reduction because of slaughtering.</p>

			<p>years old, and more than two (>2) years old and the number of productive cows. Secondary data came from the time series data of the number of slaughtered cattle vis-à-vis the population of all districts in West Papua Province from 1980-2008. Results of the study showed that beef self-sufficiency in West Papua depend on the availability of the number of productive cows to produce ready-slaughtered-bull in the previous year. Particularly for West Papua, to produce one unit of bull in the tth -year, with the assumption that cattle mortality is 4.92%, a number of 2.38 animal units AU of productive cows must be provided in the previous two (2) years.</p>	
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2.2 Development

Development seems to be an endless discussion within the framework of the study of human survival. This phenomenon is inherent as one of the characteristics of human life which is often changed by various dimensions.

The development concept is usually embedded in the context of the study of change. Stiglitz in his *Toward New Paradigm for Development: Strategies, Policies, and Processes*, said development symbolizes transformation/change of society, the movement of relations, ways of thinking (about health and education), and traditional production methods heading a more "modern". The key of the change is more "scientific" way of thinking, identifying the key variables affecting the outcome, trying to make conclusions based on the data provided, as well as identify things that known or not. The changes provide opportunities for communities and individuals to gain control over themselves. Development enrich people by broadening their horizons and reduce feeling isolated. Therefore, the development strategy should be aimed at facilitate the transformation of society, identify problems may appear at the time for change. The other scholar interpreted development as the expected changes. Every person or group surely would expect better than previous condition and to realize this hope a good plan is needed. Selo Soemardjan (1974) stated that the desired changes or planned are changes that are expected or had been planned in advance by individuals or groups that want to hold changes in society.

Indonesian society is inseparable from this phenomenon. Diversity, ethnic, racial, group, and religion with a form and different levels of life in society is directly or indirectly encourage changes in society. Lack of communication between the policy makers with the people, causing a top down development. This make the development feasible to harm a side, eventhough it could be benefit for another side.

Development includes two basic elements; First, the material that would be produced and shared, and second, human resource. However, development must be aimed to human development. The man built must be a creative man, and to be creative human being should feel happy, secure, and free from fear. Development does not only deal with production and distribution of material goods; development should create human which can develop their creativity (Budiman, 1995). From the explanation above, it could be concluded that development is essentially a process of transformation of society that has come closer to the social order aspired. Djojonegoro (1996) added that in the transformation process, there are two things to note, namely sustainability (continuity) and change (change), the attraction between the two created a dynamic in the development.

2.3 Regional Development

Sukirno (1976) defines regional development into two understanding as explained below:

- a. The development in an area, for example the area of West Java, North Sumatra, Sulawesi and so forth.
- b. The country's development from the point of space or territory, and in this context the more appropriate term is the development of the region. In this

second sense, regional development strategy is intended as a step to complete macro and sectoral strategies of national development. Khuldun Munji defined regional development as an effort to improve the quality and life of humans and the Indonesian people which conducted continuously, based on the capability of the region by utilizing the advancement of science and technology as well as pay attention to the development challenges of state, national, and global. More further stated that the regional development in general include:

1. Improved economic conditions for self;
2. Improved social conditions for the prosperity of the region in a fair and equally;
3. The development of any cultural diversity to sustainability; Maintenance of public security in supporting the implementation economic activity, social, cultural and environmental quality;
4. Assist the central government in maintaining and nurturing unity of the nation.

The success of regional development is determined by several factors, among others:

1. State area, which includes the social, political, cultural, security, physical areas and public facilities;
2. Development plan, which includes objectives, goals, targets development, strategy and development plans;
3. Means of development, which includes institutional, funds, resources human and natural resources available;

4. Outside influence, which includes the social, political, economic, security

The world and the forces that specifically affect;

5. Implementation, which includes provisions and arrangements and the implementation of development plans.

Regional Development by local government

Speaking about regional development, couldn't be separated from the local government as the main actor in developing its region. As mandated by 1945 Constitution, the local government has authority to control and manage their own affairs according to the principles of local autonomy and the establishment of regional autonomy to be directed to accelerate the realization of public welfare through the improvement of service, empowerment, and community participation. Besides, through special autonomy, the region is expected to improve competitiveness with due regard to the principles of democracy, equality, justice, privilege, and the potential and diversity of regions within the Unitary State of the Republic of Indonesia. Therefore, if beef self sufficiency for example, become national mandat, local government must support it as the part of Indonesian Country but using specific strategy considering its local potency.

The local government in order to improve the efficiency and effectiveness of the implementation of regional autonomy, need to pay attention to the relationship between the composition of the government and local governments in the potential and diversity of the regions. The key aspects of financial relations, public services, and the utilization of natural resources and other resources implemented fairly and equitably. Besides, it should be

noted also the opportunities and challenges in the global competition to take advantage knowledge and technology development.

In order to be able to perform its role, of local governments are granted the broad authority within rights and obligations in delivering autonomy and unity of local governance system.

At the regional level, implementation of governmental functions becomes the duty of the head of the region along with the existing apparatus under Law No. 32 of 2004 on Regional Government mentions the task of regional heads one of which is to lead and local governance processes based on policies set together with the Regional Representatives Council.

There is a difference between public sector management compared with private sector management. This difference is mainly due to different characteristics. According to Antoni and Young (2003) Characteristics of nonprofit organizations on the size of profits, the ratio of tax and law, delivering service organization, the professional dominancy, the differences in governance management, the influence of politic interest, and the tradition of poor management control. From these characteristics, injustice profit motive is a major feature of the public sector organizations. The difference of these characteristics led to the concept private sector management can not be fully applied in the public sector. Although this does not mean that the public sector can not be done with entrepreneurial management. According to Osborne and Gabler (1992) there are ten principles in implementing entrepreneurship in local government: first, entrepreneurial government to encourage competition among service providers. Second, the government empower society by encouraging community control. Third, the performance measures are

outcomes not inputs. Fourth, the government is controlled by a goal or mission is not by the rules and regulations. Fifth, the government defines a client as a consumer. Sixth, the government is trying to prevent problems rather than looking for solutions after the problem occurred. Seventh, the government uses the energy to generate not just spend money. Eighth, the government encourages decentralization of authority. Ninth, the government prefers on market mechanisms rather than bureaucratic mechanism. Tenth, the government is not focusing on the provision of public services but as connecting to all sectors.

2.4 Cattle's Development

Indonesian cattle refers to the cattle which has existed in Indonesia since centuries ago, while local cattle refers to cattle coming from abroad but has been bred and cultivated for a long time in Indonesia, so it has to have certain characteristics. Bali cattle (*Bos sondaicus*) is classified as Indonesian Cattle, Madura and Sumba Ongole (SO) cattle classified as local cattle (Samin, 2012). Nowadays, many cattles come from abroad which could be well bred by breeders such as Simental, Ongole Crossbread, etc.). Sitepoe (2009) said that Indonesian cattle farm classified into local and imported cattle based on the origin of the seed.

According to Sitepoe (2009), the purpose of raising cattle in Indonesia can be divided into several motives, they are:

1. Ritual / Religious

Some ethnic groups/religions in Indonesia used cattle as a symbol of marriage ceremony or death. Muslims use it as the sacrificial animals for the feast of idul Adha.

2. Foodstuff resource.

Cattle could produce beef and another side product such as bone, cattle skin, etc. All of those ingredient could be consumed as protein and fat source which are good for fulfilling body's nutrition need.

3. Sources of Revenue

Cattles can be sold in productive or unproductive period.

4. Power source.

Before tractors were introduced in agriculture, cattle played an important role for processing the soil as drawn plow or animals pulling carts.

5. Producing fertilizers

Cattle's feces and urine could be used as fertilizer and ingredients for producing biogas as alternative fuel for household's need.

Mubyarto (1977) classified cattle farming system in Indonesia into 3 groups, they are: (1) Traditional farming system, with simple management and low quality and quantity. Aimed to fulfill house hold's need only; (2) semi-commercial farming system. The maintenance skills could be classified as medium. Cultivating good cattle breeder (2-5 cattles) and fed with good food and good health service although low. The main purpose of raising livestock to increase family income and personal consumption; (3) Commercial breeders. The business is run by professional management that has capabilities in terms of capital, production facilities with modern technology. All workers are paid and fodder are mainly purchased from outside in large numbers. The ultimate goal is the pursuit of profit as much as possible. Production costs is set as low as possible in order to dominate the market. Dumairy (1996) stated that Indonesian cattle farming system mostly

managed in traditional way by these characteristics: small scale and limited capital; simple technology and management; aimed to fulfill households need only; productivity and product quality are low.

It have been explained above that livestock business in Indonesia, including beef cattle farms in general still managed traditionally, where breeding beef cattle is only is a family business or as a sidejob. According Saragih (2000), the typology of farming businesses are divided by scale efforts and contribution to the farmer's income.

1. Farm as a side job. The income contribution not more then 30% or less;
2. Farm as a branch of business,

The livestock farm integrated into other agricultural system or agribusiness (mixfarming). The income levels for about 30 to 69.9% (semi-commercial or integrated business).

3. Livestock as a core business, where farmers cultivate livestock as principal business and other agricultural commodities as a sideline business, with income level from 70 to 99.9%
4. Livestock as an industrial business, where livestock commodities cultivated special (specialized farming) income levels 100%.

Development of beef cattle in the region, in general must pay attention to three factors, namely technical, social and economic. Technical considerations lead to the suitability of the production system sustainable, supported by the ability of human and agro-ecological conditions. Social considerations means that the existence of the livestock sector in the region can be accepted by the social system in the sense of social conflict. While economic considerations mean that the kept livestock should generate

more value for the regional economy as well as for the farmer itself (Santosa, 2001).

There are several obstacles in the development of beef cattle, including: (1) Narrowing land, (2) low resource quality, (3) Low animal productivity, (4) hard financiers access, (5) low technology. While the driving force in the development of beef cattle Indonesia is: (1) The demand for meat is increasing, (2) Availability of labor is quite large, (3) government policy support, (4) Forage and agricultural residues are available throughout the year, (5) local cattle breeding business not affected by the crisis. Constraints and opportunities this development can be used as a reference in determining the development strategy of beef cattle in the region (Wiyatna, 2002). Gurnadi (1998) stated that efforts to achieve the goal livestock development can be done in three approaches, namely (1) Approach technical with increasing birth, reduced mortality, control slaughter and genetic improvement of livestock, (2) integrated approach implementing production technology, economic management, social and cultural considerations covered in animal husbandry, as well as the formation of farmers groups in collaboration with relevant agencies, and (3) approach to agribusiness, with the aim to accelerate the development of farms through the integration of the fourth aspect, namely agribusiness production inputs (land, feed, germplasm and human resources), the process of production, processing and marketing. Livestock raising is one component in farming will integrate with other commodities are cultivated by farmers. so when cattle farm in small-scale family-oriented businesses, the program based on the development of integrated agricultural systems.

farming systems integrated (integrated farming system) is a business in the field of agriculture which occurs between input-output linkages between agricultural commodities, linkages between production activities with pre-production and post-production, as well as between agricultural activities with the activities of manufacturing and services (Rusono, 1999).

2.5 Cattle Development Strategy

2.5.1 Strategy

According Einsiedel in Susilo (2002), the strategy comes from the Latin word *Strategia* which means general office, but strategy can also be interpreted as the art to make use or employment derived from French word *strategos*, another meaning of the word strategy is *strategems* or go to toward a goal.

Kotler in Sitinjak (2000) stated that the strategy is a set of ways to achieve the goals, and the strategy is a logical approach will determine the direction of an action. Salusu in Sitinjak (2000) stated that the strategy is an art using the skills and resources of an organization to achieve target through effective relationship with the environment in the most profitable conditions. And discussing about strategic that adopted by organization couldn't be separated from the grand theory of strategic management.

Robbin and Coulter (2007) defined strategic managemen as group of decisions and managerial actions which could determine long term performance of the organization. David (2004) said that strategic management is an art and science in formulating, implementing and evaluating decision which make an organization is able to reach its goal. Rangkuti (2011) defined strategic management as a process in making

organization feasible to identify what the organization wants, and how to reach the valuable outcome. Regarding to the strategic management in public organizations, strategic management can be defined as implementing cross-functional decisions in the public organization and evaluated through managerial actions to achieve organizational goals. Strategic management can serve as a means of communicating the organization's objectives and the path to be taken to achieve these objectives to the parties concerned. Therefore, the various parties who have a direct interest can be understand the opportunities and challenges faced by the public organization. They will have sufficient sensitivity to the business environment and at the same time have readiness if in case the public organization decides to do internal changes (Suwarsono, 2008)

Strategic management process consists of three stages: (David, 2004):

1. The formulation of the strategy

Strategy formulation consist of: Developing organization's vision and mission, identifying the opportunities and external threats, The Awareness of the strengths and weaknesses, establishing long-term goals, Searching for alternative strategies, Electing the strategy to achieve the goal.

The Issues of strategy formulation including determining what problem that should be solved, what object that should be shared/produced, how to allocate resources, if necessary how to switch the strategy adopted in facing strategical issue or emergency case, and how to overcome the disadvantage, etc. What should be

underlined is no organization own unlimited resources. Therefore, the strategist must decide which alternative strategy which is most beneficial.

2. The implementation of the strategy

Implementation of the strategy is called the action stage of strategic management. Implementation of the strategy requires the organization to set annual goals, making policy, motivate employees, and allocates resources, so that the strategy which has been formulated could run well. Another important thing related to the implementation of the strategy are developing a culture that supports the implementation strategies, create effective organizational structure, managing budget, developing and empowering system information, and linking employee performance with the performance of society together.

3. The assessment of the strategies

Strategy Assessment is the last stage in the strategic management. Evaluation strategy is the main tool to get information why-in case-when the strategy can not run as expected. Three basic strategies assessment activities are:

- a) review the external factors and internal that underlie for the current strategy
- b) performance measurement
- c) taking corrective steps

2.5.2 Development strategy

Stiglitz (1998) stated that development strategy more ambitious rather than planning documents, prepared a strategy for the development strategy not only for capital accumulation and resources placement, but also a strategy for the transformation of society. Development strategy has a crucial role to accelerate the transformation of society that can be done by identifying areas of nations comparative advantage. Identifying areas and publish it is the government responsibility.

A development strategy needs to promote discourse (vision) of transformation, what would our society next 20 years. This discourse is certainly contains quantitative goals, such as reducing poverty (as much as half) and pay attention to education, but it is the elements or targets in the transformation process, not the discourse of transformation own. Development strategy is sometimes seen as a blueprint, a map describe where people will be heading.

In the framework of development success is not only necessary coordination between agencies within and between levels of government, but also there should be coordination between the private sector with the public sector. The construction process of the development strategy plays an important role, to help form a consensus not only on a wide exposure the country's future and the short and medium term objectives, but also the an important part of achieving these objectives. consensus building (Consensus building) is not only an important part to achieve stability social and political, but also led to the "ownership" of policy and institutional which can enhance the success.

A strategy must include components that aim to develop the private sector, public sector, community, family and individual.

- 1) Private sector development. The ultimate goal is the establishment of strong private sector, competitive, stable and efficient. Among the elements strategies that increase these objectives are: Infrastructure law, provide competition law, bankruptcy and Other commercial law; Framework arrangements that encourage the private sector to provide infrastructure, which will maximize the competition proper, and which ensures that competition can be implemented, and not tormented market power; Government provision of infrastructure, where the infrastructure sector not occur; A stable macroeconomic framework; The financial system is stable and efficient, requires a framework setting not only ensure safety but also increasing competition, protect depositors, creating confidence and identify groups minorities in society. If the private sector is successful, then the environment will be more conducive for the development of the private sector. The primary key of a conducive environment is a highly qualified workforce - healthy and educated.
- 2) Public sector development. Development strategies should pay attention the public sector. The key question behind the strategy for the public sector is identifying the role of government - what to do government and how the government should implement it. Another thing to note is how the public and private sectors can complement each other, work together in the development effort. Things important in the public sector strategy are: (i) focusing the public sector the

unique functions that must be implemented, for example, to create an environment which allows the development of the private sector, ensuring that health and education may be enjoyed by the public and reducing poverty; (li) strengthening the ability of the public sector, including the development of effective public services and restructure the public sector for more make effective use of incentives and the use of market mechanisms; and (lii) compatibility responsibility and mode of operation of the ability country.

- 3) Community development. Although some of the activities carried out in national and even international level, but often communities are considered as an effective tool to bring the transformation of society. Project development which could either be accelerating development community. Community participation reflects the wishes and preferences of a community and a project that is designed to reflect Local, ensuring that local conditions, preferences and conditions have been considered. Participation in a project is Baian of the transformation process.
- 4) Family development. Determinant of the success of the rise in per capita income is population growth. Other determinants are the level of education woman. Both are decisions made within the family. The family is not only responsible for education but also on nutrition and health.
- 5) Individual development. In the end, the transformation of society emphasis on individual transformation of the way of thinking and acting. Development leads to the buildup on the individual, so

individuals will have greater control over events affecting their lives, so the individual can become richer, and healthier. Education and health are the core of the business individual development.

Approach to development strategies must have:

- 1) Resource. It is clear that an important resource for development. A development strategy must describe plans for develop physical capital and human capital, and also preserve natural resources. It should also describe the planning for encourage saving and investment, planning for schools and financing, as well as planning for the use and renew natural resources.
- 2) Economic management. One characteristic of poor countries is a lack of resources power. A comprehensive development strategy should be established to identify major distortions in the economy, how it is given, considering the entire social cost and effect Policy.
- 3) Knowledge management. Development must eliminate gaps, good human capital gap, but the gap knowledge. Knowledge and capital are complementary; increase knowledge will increase the return on capital, while an additional capital provides the opportunity to utilize their knowledge. Combining knowledge into development strategies require the establishment of the ability to absorb and adapt knowledge, invest in technology to facilitate the dissemination of knowledge and build knowledge locally. Thus, development strategies must describe a strategy of knowledge management.
- 4) Sectoral strategies and sub-national. In some cases, narrowing the focus from all sectors of the economy into industries, regions, cities or

regions sub-urban very useful. Which represents urban arena a set of interests intersect - infrastructure, environment, health, finances. Urban is a microcosm of an economy and a fully integrated solution to problems usually appears. Furthermore, many cities are more successful in achieving modernization than its suburbs, therefore, natural that development strategy more focused on urban areas in order achieve social transformation.

- 5) Social and organizational capital. One other form of capital is capital social and organizational, involving institutions and relationships bridge between the transaction and settlement issues. Community traditionally have social capital and organizational level is high. But in the process of development, social and organizational capital this often broken. Transformation sometimes weaken the relationship of authority traditional. The problem is that this destructive process may occur before the social capital and organizational form. Social capital and Organizational can not be provided by outside contractors, but must grow from the community itself, how to adapt the stages changes and other forms of reform. But sometimes, it is slow transformation. There has been much discussion about Building the capacity (capacity building). The easiest part in development is the ability to provide human capacity, education, skills and knowledge required in development. The most strenuous part in capacity building is social capital development / organizational, including institutions enable a society to function properly. There are many dimensions of this:

- 1) Environment conducive private sector, which is entering the market and legal infrastructure that enables markets to function good;
- 2) Environmental knowledge, which allows absorption and adaptation of new knowledge;
- 3) Environmental policies, which included the ability to make important decisions with respect to the strategy development.

2.5.3 Cattle development strategy

Along with population growth, demand for beef more increased. This is an opportunity to increase beef production in a region by developing cattle farm. The strategy used must be suit to the strength, weakness, opportunity, and treath belong the region. The strategy adopted will be supported by the availibility of natural resources, human resources, and strategic location. However, this development effort could face several constraints such as low quality of human resources, breeding difficult, maintenance is still traditional, very high amount of deductions that led to the cattle population decreased dramatically, as well as competition with other sub-sectors such as residential and industrial which killed traditional cattle farm. Therefore, developing cattle need a good strategy to make it succeed. Gurnadi (1998) stated that efforts to achieve cattle development can be done in three approaches, namely (1) technical approach to improving birth, reduced mortality, control of slaughter and genetic improvement of livestock, (2) an integrated approach to apply the technology of production, economic management, social considerations culture covered in effort farms, as well as the formation of groups of farmers who cooperate with relevant agencies and (3) approach to

agribusiness, with the aim to accelerate the development of farms through the integration of the four aspects of agribusiness that production inputs (land, feed, germplasm and human resources), the production process , processing and marketing.

2.6 External factor strategy

Factors external strategy by David and Thomas (2004), is a strategic environmental issues that are considered to have a high probability of affecting the (private/public) organization, factors external strategy consists of: Demographic factors, legal and political, economic, sosiokultural. External analysis consists of market analysis, competitor analysis, community analysis, supplier analysis, the government's analysis, analysis of a particular interest group. Meanwhile, according to Umar (2003), the analysis of external environment include political factors, economic factors, socio-cultural factors, as well as Factor Technology. External environment analysis was used to identify factors beyond the control of the (private/public) organization, where the (private/public) organization can make a response to external factors such by formulating strategies to take advantage of existing opportunities and to minimize the threat of these factors (David 2004).

Heizer and Render (2006) states the factors that influence the external environment is the economy, culture, demographics, and government regulations. As with the Bourgeois (Kuncoro 2006) who said that the external environment is affected by consumers, competitors, suppliers, and government regulations. While Jatmiko (2003) argued that the analysis of the external environment is influenced by several factors), namely:

- 1) Demographic, include population size, age structure, distribution, geographic, ethnic, and income distribution.
- 2) Economy, include inflation, interest rates, deficit or surplus in the trade balance, budget deficit or surplus, the personal savings rate, savings rate and the (private/public) organization 's gross domestic product.
- 3) Political / law, including tax law, philosophy, law manpower training, policy and philosophy of education.
- 4) Socio-cultural include women in the workforce, the variation in the labor force, the behavior of the quality of work, consideration of the environment, shifts about the characteristics of products and services.
- 5) Technologies include product innovation, process innovation, application of knowledge, focusing on the cost of research and development supported by the government and private sectors, and new communication technologies.

EFE Matrix Strategic planners can make summarizing and evaluating information, economic, natural, technological, political, legal and social culture. According to Kurniawan (2011) argued that the analysis of external environmental factors is expected to identify opportunities and threats in determining the development strategy of domestic poultry broiler. The threat environment (environmental theats) are the challenges placed by trends or developments that are not favored that will result in reduced sales or profits due to the absence of defensive marketing action. (Ananda 2012).

2.7 Internal factor strategy

According to Kotler (2005): "The internal environment is a decisive factor for the survival of the (private/public) organization. These factors include: marketing, human resources, production and finance ". According to Hamel and Prahalad (1995), analysis of the internal environment is a resource-based view of the approach of the core competence and core product concept, which the (private/public) organization sees its core competencies and the competencies that can be distinguished from its competitors. Internal environmental analysis is an analysis that was conducted on all aspects within an organization and can be controlled entirely by the organization concerned. Internal analysis aims to determine the strengths and weaknesses of an organization. Internal environmental analysis is an analysis of the (private/public) organization itself such as financial reports, activity reports of human resources, operational activities, marketing activities, etc. David (2004) stated that the internal analyzes required by the (private/public) organization to know the various strengths and weaknesses of the (private/public) organization so that it can help companies to define the right strategy by leveraging internal strengths and to overcome the weaknesses of the (private/public) organization . Internal environment include: Management, Marketing, Finance, Production, Research and Development, and management information systems. IFE matrix summarizes and evaluates the main strengths and weaknesses in different functional areas within a business. This matrix also served as a basis to identify and evaluate the relationships between these fields.

2.8 SWOT Analysis

Analyzing the internal and external environment is crucial in the process of strategic planning. Factors internal environment in the (private/public) organization usually can be classified as Strength (S) or Weakness (W), and the external environment can be classified as Opportunities (O) or Threat (T). Environmental analysis of this strategy is referred to as a SWOT analysis. SWOT analysis is the identification of factors systematically to formulate the (private/public) organization 's strategy. This analysis is based on the logic that maximizes strength (strengths) and opportunities (opportunities), but simultaneously can minimize your weaknesses (weakneses) and threats (threats). This analysis also stated that the main problems faced by the (private/public) organization can be separated through a careful analysis of each of these elements (Dyson 2004). The results of the formulations was formed through the combination of strengths and weaknesses of the organization, used to record the main force and translates into a value (Coman and Ronen 2009). SWOT analysis is a tool formulation and decision making to determine the strategy pursued by the logic to maximize strengths and opportunities, but at the same time to minimize the weaknesses and threats (Iksan, 2011). According to Moser (2006) one of a series of effective analytical tool for designing the strategy is to use a SWOT analysis. SWOT analysis can help private companies or public organization to adjust relative position in facing a problem. SWOT analysis allow private companies or public organization to identify all the actions / activities of the (private/public) organization . Adam (2005) added that the SWOT analysis is not suitable for use by executives to solve problems every day, but the SWOT

analysis should be used once a year to help solve the problems of the (private/public) organization. According to Kurtz and David (2008), SWOT analysis is a strategic planning tool is essential to helping planners to compare the strengths and weaknesses internal to the organization from external opportunities and threats. According to Pearce and Robinson (2007), a SWOT analysis needs to be done as a SWOT analysis to match the "fit" between internal resources and external situation of the (private/public) organization. Matching the good will maximize strengths and opportunities for the (private/public) organization and minimize weaknesses and threats. This simple assumption has strong implications for the design of a successful strategy. According to Thompson (2008), SWOT analysis is a simple but a very powerful tool to expand the capabilities and know the inefficiency of resource companies, the chance of the market and external threats to the future for the better again. Meanwhile, according to Wijaya (2005), SWOT is an acronym for strengths and weaknesses, opportunities and threats (threats) environment facing the (private/public) organization. Meanwhile, Siagian (2005) defines a SWOT analysis is a powerful instrument in analyzing the strategy, efficacy lies in the ability of the determinant of the (private/public) organization's strategy to maximize strength factor and utilization of opportunities and serve as a tool to minimize the weaknesses contained in the body of the organization and pressing the impact of emerging threats, and must be faced.

Methods of analysis of strengths, weaknesses, opportunities and threats (SWOT) has been widely used as a tool for planning and analyzing strategic moves over the last decade. This method can also be used to identify

the environmental relationship and allows an institution related to the environment and help the business growth strategy. SWOT technique is one of the best and simplest in the situational assessment. Although the results are more subjective and qualitative if used with caution, SWOT can provide a good foundation for the success of the strategy formulation (Pesonen et al. 2000). This information will allow to take advantage of the strengths and opportunities, take measures for better handling of threats, and mitigate the effects of weakness factor. All of this should be considered as a destination any strategic plan (Hill and Westbrook 1997), despite early gains SWOT in decision-making on the use of conventional SWOT analysis does not have the means to determine the importance of each factor SWOT (Shinnō et al. 2006).

SWOT analysis itself compares between the external factors and internal factors. By this analysis will produce four possible strategies that can be used by the (private/public) organization to further increase the number of customers. A fundamental objective SWOT analysis to identify trends, strengths and conditions that have a potential impact on the formulation and implementation of corporate strategy. This is the most important step on dasra two reasons. First, any changes in the external environment can have a serious impact on the (private/public) organization. Secondly, this step provides an opportunity to draw up the most important aspects to be evaluated. To simplify the analysis of internal and external environment SWOT can be used External factor evaluation (EFE) and the Internal factor evaluation (IFE). Therefore, before conducting a SWOT analysis should be done analysis EFE and IFE or better known as the EFE Matrix and IFE Matrix (Chan 2011). SWOT stands for strength, weakness, opportunities, threat (challenge).

SWOT analysis provides an evaluation of internal factors such as their strengths and weaknesses and external factors such as opportunities and challenges. The strategy selected should be appropriate and compatible with the (private/public) organization's internal capabilities with external situations. SWOT analysis is only useful if it has been done clearly defined what business and which direction the (private/public) organization is heading into the future and the size of what is used to assess the success of the success of the organization / management in carrying out its mission and realize its vision. The results of the analysis will map out the (private/public) organization's position on the environment and provides a selection of appropriate common strategies, as well as a basis in determining the organization's goals for the next 3-5 years to meet the needs and expectations of stakeholders. Furthermore Daft (2003) explains that the SWOT analysis is an analysis of four elements comprising,

1. Strength

An internal positive characteristics that can be exploited unruk organizations achieve performance targets strategy.

2. Weaknesses

An internal characteristic which can hinders or weaken the performance of the organization.

3. Opportunities

A characteristic of an Environmental externally that have the potential to help organizations achieve or exceed its strategic objectives.

4. Threats

Ling is a characteristic of the external kungan to prevent the organization achieve strategic goals that have been set.

Tripomo and Udan (2005) defined a SWOT analysis as assessment of the identification of the situation to find out if a condition is said to be the strengths, weaknesses, opportunities, or threats that can be described as follows:

1. Strength is the internal situation of the organization in the form of competency/ capabilities / resources owned by the organization that can be used to handle opportunities and threats.
2. Weaknesses is the internal situation of the organization in the form of competency/ capabilities / resources owned by the organization that can be used to handle opportunities and threats.
3. Opportunities is the external situation that is potentially profitable organization. The organizations that are in a similar industry in general will feel disadvantaged when faced with such external conditions.
4. Threats is the organization's external situation that could potentially cause difficulties. Organizations that are in the same industry in general will feel aggrieved / complicated / threatened when faced with such external conditions.

This matrix cells can produce four possible alternatives strategy, that strategy S-O, W-O Strategy, Strategy S-T and W-T strategy. The linkage of internal and external factors described in the form of a SWOT matrix. SWOT matrix is a tool to summarize the factors that illustrates how the (private/public) organization 's strategic opportunities and external threats faced by the (private/public) organization can be reconciled. with

weaknesses and internal forces companies to produce four groups the possibility of strategic alternatives, namely:

1. S-O, which is a strategy created by the mind of companies by utilizing all the power to seize and exploit opportunities as possible.
2. S-T, which is a strategy in using the power of the (private/public) organization to overcome the threat.
3. W-O, which is the strategy adopted by the utilization of opportunities by minimizing the weaknesses.
4. W-T, which is a strategy that is based on activities that are defensif and seeks to minimize weaknesses and avoid threats.

According to David, (2004) the steps required to prepare the SWOT matrix as follows:

1. Make external opportunity (private/public) organization that sets
2. Creating a (private/public) organization that sets up external threats
3. Creating a (private/public) organization that sets the internal strength
4. Make the (private/public) organization 's internal weaknesses that determine
5. Match internal strengths with external opportunities and record the resultant SO strategy in the appropriate cell
6. Match internal weaknesses with external opportunities and record the resultant strategy WO
7. Match internal strengths with external threats and record the resultant strategy ST
8. Match internal weaknesses with external threats and record the resultant strategies WT.

2.9 Food Security

Food security is a multidimensional issue. It has become increasingly complex and challenging with the impact of economic growth, changing demographics, consumption patterns, international trade, and environmental change all interconnected globally.

Food security has passed long steps in its way. In 1950s-1960s, food security was adequated with food self sufficiency in major staples. Following FAO World Food Conference of 1974, food Security was defined as access to sufficient food. This definition did not focus on from where te food comes or how it could be accessed. Further Current definition stated in World Food Summit (1996). Food security is achieved if all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Indonesia stated through Indonesia's Law No. 18/2012 that food security is the condition in which all people, in all households, at all times have sufficient food in both quantity and quality to enable them to live healthy, active, productive and sustainable lives, and that the food is safe, diverse, nutritious, equitably distributed and affordable, and does not conflict with religion, beliefs or culture.

Food security, according to the World Health Organization (WHO) in ADB (2013: 13), rests on three pillars: food availability, food access and food utilization. Indonesia also adopted these pillars and describe it inthe following explanation:

1. Food availability covers the supply side. Is there enough to feed people?

Food availability is determined by food production and technology, inventory, efficiency of supply chains, and local and international trade. FSVA (2015) highlighted Food availability as the physical presence of food in the area concerned, from all forms of domestic production, government reserves/stocks and external sources, including commercial imports and food aid. Food availability is assessed at the national, regional, district or community level.

2. Food access is the ability to obtain adequate quantities of food, the purchasing power needed, and adequate delivery mechanisms, including social safety nets. Food access is also defined as a household's ability to acquire adequate amounts of nutritious food through one or a combination of sources, including own production and stocks, purchases, barter, gift, borrowing and food aid. Food may be available in the area, but not accessible to certain households if physical, economic or social factors prevent them from acquiring sufficient quantity or diversity of food (FSVA, 2015).
3. Food utilization refers to the need to meet dietary needs and cultural preferences. More detailed meaning given by FSVA (2015) which said that Food utilization refers to household's use of the food to which it has access and to the individual's ability to absorb and use the nutrients. Food utilization includes the ways in which food is stored, processed and prepared; the safety of drinking and cooking water; hygiene conditions; feeding practices, particularly for individuals with special food needs; intra-household distribution of food according to

individual needs such as growth, pregnancy and lactation; and the health status of each household member.

Food security needs a lot of effort to be created. Feeding people is not easy, especially for country which has small local food source, or country which has huge amount of people. This condition opens an opportunity for developed countries to supply developing countries' demand. It runs for a very long time, until some countries are considered as net importers for specific commodities.

On the other hand, the global spike in food prices in 2007-2008 has shaken the world. A 54% price rise was very hard for countries, especially those who depend on imports. It became a trigger for renewed interest in food security. The policy taken was not always how to ensure people's need but also how is the way to fulfill it. Cutting import dependency as one of the strategies for coming out of food crises became a trend. Export bans started to be implemented by some countries in 2008, including by net importers like Indonesia, which lend support to the view that the international market can no longer be relied upon to deliver adequate supplies regardless of prices that were willing to be paid.

In response to such concerns, many countries are attempting to reduce reliance on imports and achieve self-sufficiency where possible. Self-sufficiency is taken as a high share of domestic production in total domestic use, excluding stock changes (Atmakusuma et al, 2014). Food self-sufficiency was determined primarily for the commodity that is needed in people's basic dietary food, such as rice, sugar, meat, etc.