Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.3, No.7, 2013

Development Strategy of Prime Commodities of Plantation in the District of Aceh Besar

Ismayani
Agribisnis Department, Agriculture faculty of Unsyiah
ismayani59@yahoo.com and romanos_agri@yahoo.co.id

Abstract

Economic development is driven by the agricultural sector, especially plantation sector has a uniq strategy. Plantation in this area focused on plantation development strategy to support community livelyhood. The research was conducted in Aceh Besar district with survey methods. Studies related to oil as a commodity commodity base involving farmers, extension agents and agency staff. Model analysis of the hierarchy, LQ, investment criteria, specialization and diversification. Study found that the development of plantation in Aceh Besar district has not been consistent with the potential of production centers in each sub-district. Several factors contributed to this inconsistency, among others. Elected as a primecommodity in Aceh Besar regency are coconut, nutmeg, cloves, pepper and areca has been a prime of the community as a source of livelihood of the plantation sector. The besat strategy of commodity development in Aceh Besar is diversification strategy on the basis of the potential combinations, the type of commodity and infrastructure to support agribusiness. Each district as well as developed some commodity to anticipate the price fluctuations of commodity.
Key Word: plantation subsector, prime commodities

1.Introduction

The role of the agricultural sector is still very dominant in Aceh province. An indicator of this dominance can be seen from the large agricultural sector contribution to GDP Aceh. From 2006 until 2010 the Agricultural Sector produced relatively large amounts of GDP for Aceh compared to other sectors. This is one indication that over the last five years the role of the agricultural sector in the Aceh province is still very dominant. After experiencing a slump during the conflict, agriculture in this area began to rise and make a positive contribution to the Gross Regional Product of Aceh province.

Aceh Besar district as one of smallholder production centers also rely on GDP from the agricultural sector. From 2006 to 2010 shows that GDP of the agricultural sector increased significantly. The increase is in line with the increase in GDP Aceh Besar district as a whole. When we compare the contribution of agriculture to the other sectors, it is clear that there is dominance of agriculture in GDP of Aceh Besar district. Compared to the total GDP of Aceh Besar district, the development of the agricultural sector was fluctuated. In 2006, the agricultural sector contributed nearly 33%, and in 2007 increased to 36%, but by 2010 had declined to 22%. Despite, trend GDP from the agricultural sector still positive.

Focus on the plantation subsector with locations in Aceh Besar district. Plantation in this area has good prospects in the future, as a source of economic growth and job creation. Existing conditions related to the increasing of plantation production can be done by determining commodity. In general, there are 11 commodities that have been developed by the community in Aceh Besar district. Among the eleven plantation commodities that have evolved in this area, some of them can be categorized as part of national commodity and commodity areas. National commodity consists of palm oil, cocoa, tobacco, rubber and coffee. Commodity areas such as: coconut, clove, areca nut, nutmeg and pepper. Pepper, although it is acreage, the production and the value of its production is relatively small, Aceh Besar have made pepper as the main production area.

Another phenomenon indicates that conditions in the central production area of plantation commodities contrast to the plant area of existing conditions, production and its productivity. Most of the coconut crop grown in the district of Kuta Baro, Montasik, Kuta Malaka, Indrapuri; which were more suitable for the development of food crops. While in the District of Baitussalam, Lhonga, Leupung and Mesjid Raya should be suitable for the development of seed plants.

Based on these phenoma, it can be concluded that the development of the best commodity in Aceh Besar district has not fully linked with the potential existing of the region so that the desired results are not in accordance with the reality on the ground, in spite of the productivity which is visible increased. However, the productivity improvement is apparent, and it is certainly a lot of factors that affect it, particularly the suitability of land in their respective districts in Aceh Besar district.

The potential area for the development of the commodity subsector is a great area for plantation. This is evident in the development planning in the agricultural sector are based on the Spatial (area for the development of plantation commodities). However, problems encountered, particularly in natural resource management which is oriented in environment still has obstacles, in which, if it was not recognized by the parties, this issue will

result in a wasteful use of increasingly scarce resources in developing the potential in the region. This study aims to assess the suitability of the development of commodity-based potential of the region; feasibility of developing the best sub-sector plantations commodity in Aceh Besar and reviewing commodity development strategy for the plantation sector of sub districts in Aceh Besar district.

2. Methods Of Study

This research was conducted by a number of methods that are summarized in hierarchy process approach. The first method is a method of exploratory in which the secondary data were got from the general condition of the existing plantation commodities in the last five years (2006 to 2010). Then, the maps of potential land and agro-climatic conditions in Aceh Besar district were collected. By doing so, these basic commodities of the prime plantation districts of Aceh Besar will be determined.

2.1 Data Collection and Source of Data

The second method is a survey method. It was done by interviewing the coconut, hazelnut, nut, cloves and pepper farmers. The sampling technique used is a three-stage random sampling group (Cluster Multi Stage Random Sampling). The population is farmers of plantation commodity of Aceh Besar district. The first stage is to select 10 districts as the center of production of plantation commodity of Aceh Besar. The second stage is the selection of village of production centers in each district elected. The third stage is the selection of farmers as the sample, who are drawn randomly according to the type of commodity plantations cultivated by 20% of farmers who manage the plantation. Total population will be determined by each district selected commodity. Total population is a number of households that have five commodities that will be selected. In accordance with the requirements according to the type and source of data can be explained by the need answering the research problems. To answer the research objectives (1) it is required secondary data which was collected from reports of Plantation Office Aceh Besar, BAPPEDA, and BPS Aceh Besar. To answer the research objectives (2) it needs primary data needed to be collected from 20 percent farmers selected based on the plantation commodity. Furthermore, to answer the purpose of the study (3) it is required secondary, primary, and verification data results of *Focussed Group Discusión* (FGD) with the chief of Agriculture Production, Extension Crops and farmers who seek commodity plantations in Aceh Besar district.

2.2 Analitycal Method

The analysis model used is in accordance with the hypothesis derived in this study. To answer the hypothesis in this study, some of the analytical tools that are used are as follows:

Hypothesis 1: Establishment and development of subsector prime commodity has not been based on the potential of the district of Aceh Besar.

To test this hypothesis, it performed the analysis stage as follows. The first is that based on the above five parameters sorted priority commodities in the Aceh Besar district. Cross correction is then performed to find the sub-center commodity production. The second phase is that, an analysis tool used is Location Quotient (LQ) is calculated by the following formula (Warpani, 1984):

$$LQ = \frac{(Si / Ni)}{(S / N)} \text{ or } LQ = \frac{(Si / S)}{(Ni / N)} \quad \text{..... (1)}$$

Where:

LQ = coefficient of plantation commodities locations
Si = Volume of commodity i at the regional / district
S = Volume of plantation commodities the regional / district

Ni = Volume of commodity i at the district level
N = Volume of commodity plantation district
LQ numbers indicate the following:

a. LQ> 1, suggesting these commodities including commodity base.
b. LQ <1, indicating these commodities including non-commodity basis.
c. LQ = 1, indicating the commodity can only meet its own territory.

a. Localization coefficient (α)

Used to determine the spread of commodities activities in an area, so we will know the level of agglomeration.

$$\alpha = \left\{ \left(\frac{Si}{Ni} \right) - \left(\frac{S}{N} \right) \right\} \quad \text{..... (7)}$$

summing the values of a region that α value is positive.

Where:

α = Coefficient of Localization
Si = Number (income, production) commodity i at the regional level
S = Total (revenue, production) commodities regional level
Ni = Number (income, production) commodity i at the district level
N = Number of total (revenue, production) commodities district

The α value gives the following indications:

a. α = 1, indicating the localization of commodities activities centered
b. α <1, indicating the localization of activities of commodity spread.

b. Specialization coefficient (β)

Used to determine the specialization of a region in a particular activity, so we may know the reliability of comparative.

$$\beta = \left\{ \left(\frac{Si}{Si} \right) - \left(\frac{Ni}{N} \right) \right\} \quad \text{..... (8)}$$

The way: by adding up the value of a territory which is positive.

Where:

β = coefficient of Specialization
Si = Number (income, production) commodity i at the regional level
S = Total (revenue, production) commodities regional level
Ni = Number (income, production) commodity i at the district level
N = Number of total (revenue, production) commodities district

Figures β indicates the following:

a. β = 1, indicating an area specializing in commodities activities.
b. β <1, showed no activity specialized commodity n in a region.

3. Results And Discussion

3.1 Potential Areas and Development of Plantation Commodities Prime

Government of Aceh Besar is still ambitious to develop oil palm and cocoa, but with the existing condition only 5 candidates on the plantation commodity still has huge development potential, especially oil, pepper and areca nut.

In terms of production, commodity sequence for crops production are shown in the graph below. For the production of the largest commodity Coconut, Areca, cloves and pecan contribute significantly to the income of farmers, pepper and cocoa developed only in two districts of Aceh Besar lowest ranks.

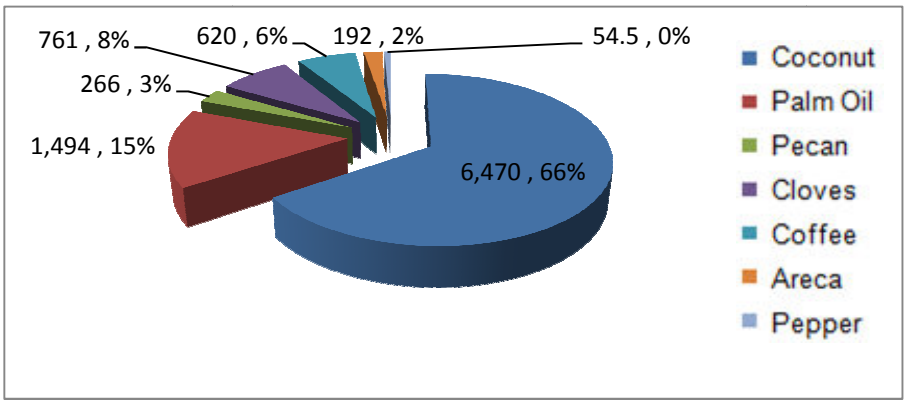


Figure 1. Production (tonnes) Commodity Candidate prime Plantation in Aceh Besar district

Furthermore, the results of data analysis showed that the income of the greatest contributions obtained from commodity of coconut. Next, successively: commodity hazelnut, clove, coffee, nuts, cocoa and pepper. Picture production value commodity plantation candidates in Aceh Besar district is shown in the graph below.

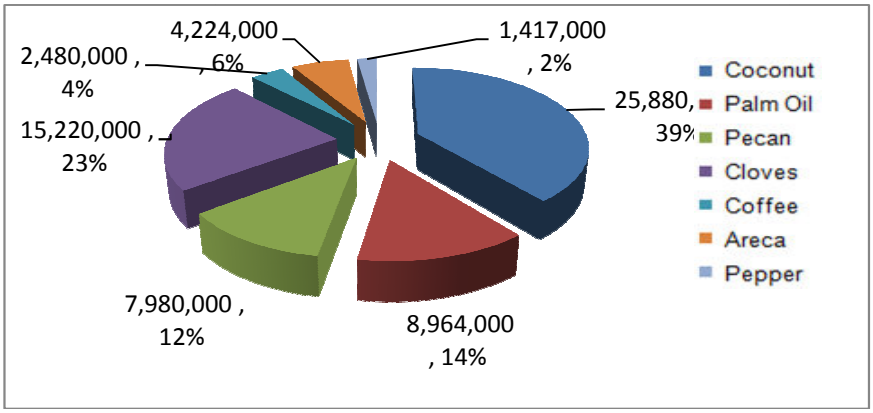


Figure 2. Production Value (Rp.000) Prime Commodities Candidates of Plantation in Aceh Besar district

Coconut is a commodity that has the most contribution to the production of oil and the region's economy, then followed by coffee, nutmeg and cloves. In other words, if you consider the aspects of commodity, coconut plantations production becomes a major contributor to the production in Aceh Besar district. Coffee and Clove is the most commodities in demand as shown by the trend of the highest production values. Besides, it also shows the value of sustainability in getting the commodity. In terms of market certainty, pepper and cocoa commodity showed high enough for market indicators values. Besides that, these indicators also provide information capabilities competitiveness of these commodities in the market in district, to provincial market district. On the criteria of employment, coconut is a commodity that has the highest employment rate. On the consumption indicator that is defined as the ability to increase income and to meet domestic needs, there are two types of commodities that have the highest value of the indicator, they are Coconut and Coffee.

In addition to demonstrating the value of each indicator criteria, can be used as basis for determining the policy partially. In Coconut and Cloves commodities, when the government expects the policy focus on the value of the farmer's household income, so commodity that should be driven are Cloves and Pecan, when expecting the fulfillment of domestic needs such as price fluctuations and so on, as often happens, the focus of development is for commodities of pepper, nut, coffee and so on. If the government expects the policy focuses on trade, so the commodity that should be driven are nutmeg and cloves, while growth in terms of employment, the government will focus on the development of coconut, pepper and cocoa. Ranked commodity is used to be able to see where the commodities are prioritized in order to capture the wisdom partially such as to increased production, or to increase the competitiveness of commodities or addressing the needs of domestic consumption.

In decision-making of prime commodity setting, policy direction must be done in a comprehensive and integrated or partially. That is, the determination of prime commodity should not only consider the increasing of production, or the increasing of the competitiveness of commodities or addressing the needs of domestic consumption, but also the whole aspects of development goals such as increasing production, increasing farmers' income, increasing the availability for consumption, absorbing employment, increasing exports or commodities competitiveness and increasing business opportunities (trend) or employment should also be a consideration of the decision. For those reasons, it is necessary various criteria on deciding prime commodity, where that commodity will be developed to answer the whole purposes of a comprehensively and integrated development. In order the determining commodity can be more precise, it is necessary to analyze the opinions of the stakeholders who were considered sufficient to know the situation and condition of the district of Aceh Besar, the desired requirements to establish commodity and their perceptions of how a commodity should be developed in Aceh Besar district , as well as any district commodities were developed. Based on the AHP method, stakeholder perceptions were analyzed to produce a prime commodity priorities vector and regional development centers.

The opinion of stakeholders (extensionist of plantations, farmers and the chief of production of Plantation, Forestry and Plantation Aceh Besar district) in the determination of prime commodity Aceh Besar is based on: (a) harvested area, (b) production, (c) productivity, (d) production values, (e) source of livelihood, (f) the volume of transactions / market, and (g) consumption. The order of priority commodities are based on eight criteria above. In which coconut still stands as the first sequence, then followed by hazelnut, clove, pepper, areca nut, cocoa, coffee, and oil palm; as shown in Table 1.

Table 1. Commodities sequence based on AHP in Aceh Besar district in 2011.

Commodity	Rank Based on Criteria							Rank	
	a	b	c	d	e	f	g	Amount	
Coconut	1	1	1	1	1	1	1	7	1
Palm Oil	5	7	7	7	7	7	7	47	7
Pecan	2	2	6	3	2	2	2	19	2
Cloves	3	3	2	4	3	4	5	24	3
Coffee	7	6	6	2	6	6	5	38	6
Areca	4	4	3	7	5	3	4	30	4
Pepper	5	5	5	6	4	5	3	33	5

Basis for determining the priority commodity crops varies by type and region. By type, coconut trees as the first rank is determined by: wide raw land suitable and very suitable in this area; production, and production values. Furthermore, pecan, as the second line commodity, determined from the point of acreage, harvested area, and volume sources of livelihood. However, based on the market value of the transaction, pecan stands on the third line commodity after coffee. This means that most of the coconut produced is processed and consumed in the district of Aceh Besar. Then the fourth largest transaction value is the cloves are commodities. This means that the cloves are produced in this area is mostly traded outside the region. This is because the unit to process this crop is unavailable yet in Aceh Besar district.

3.2 Comprehensive Reliability Criteria

Comprehensive reliability criteria used in this study as recommended by Warpani (1984), based on: (a) Criteria Markets and Marketing, (b) Criteria for Agribusiness Technology, (c) Environmental Criteria, (d) Comparative Reliability Criteria, (e) Competitive Reliability Criteria, (f) Income and Welfare Criteria, (g) the criteria of uniqueness and regional as shown in Table 2.

Table 2. Reliability sequence Commodities Estate People Comprehensive.

RELIABILITY CRITERIA		People's Estate of Commodities				
		Coconut	Pecan	Pepper	Clove	Areca
A	Criterion Markets	26	24	18	11	18
B	Criterion Agribusiness Technology	21	16	11	12	16
C	Environmental Criteria	21	18	15	10	11
D	Comparative Reliability Criteria	35	24	19	18	29
E	Criteria Reliability Competitive	16	12	20	14	4
F	Income and Welfare	12	7	17	18	14
G	Uniqueness Criteria	10	4	12	2	6
Total Score of Reliability		141	105	112	85	98
Reliability sequence		1	3	2	5	4

On the basis of the criteria of reliability competitive with the parameter values and the economic benefits, value-added and high margin, quality, can compete with other regions; well be the first order of coconut and areca into the final sequence. On the basis of the criteria of income and welfare of the meter with the ability to increase revenue, sources of revenue farmers or agribusiness, expanding employment, high economic impact on the community and region; then topped pepper and areca ranks seventh. Similarly, the basic criteria of uniqueness and areas with specific product parameters are only Aceh Besar district, the hallmark of the region, has unique characteristics; then pepper into the first order. In addition to the analysis based on these criteria, the determination of the potential of the region's commodities is also done through the analysis of soil and agro-climatic appropriateness. The analysis was conducted by reviewing the agro ecological typology at Aceh Besar regency ranging from biophysical land characteristics (soil properties and climate) as the main parameter distinguishing between agro ecological zones. The results of such analysis are the describing of the agro-ecological zoning boundaries that have a similarity or likeness biophysical characteristics and the type of land use. In appendices 13 to 19 on the basis of land and agro-climatic suitability map shows that most areas of Aceh Besar district classified as suitable for the development of seven commodities with the potential development of the plantation as shown in Table 3.

Table 3. Broad Commodity Crops and Potential Development of Plantation Crops Dependable People in the district of Aceh Besar.

Prime Commodity	Area Planted (ha)	Potential Development (ha)	Area Potential (ha)	Relative Potency (%)
Coconut	14.293	15.960	30.253	211,66
Palm oil	1.134	1.160	2.294	202,29
Pecan	3.329	2.350	5.679	170,59
Cloves	2.918	2.950	5.868	201,10
Areca	1.466	1.500	2.966	202,32
Coffee	1.373	1.400	2.773	201,97
Pepper	518	550	1.068	206,18

Source: Primary Data (processed), 2012.

Table 3 shows that on the basis of extensive planting of pepper and cocoa into the final sequence for reliability criteria of plantation commodities in this area. However, based on the relative development potential, it turned out to be the order of the first cocoa plantation commodities that can be cultivated in the future. This means that the development of plantation commodities has not referring to the potential of the region and agro-climatic conditions as well as economic value.

The last step to determine whether it is appropriate or not, is to compare the value of LQ with the results of the analysis of potential areas. The analysis showed that the sequence subsector commodity did not equivalent to be developed based on both the analysis.

Table 4. Comparative sequence Commodities prime Based on Relative Potential and Number of Sub-District as Commodities Base (LQ> 1).

Prime Commodities	Relative Potency (%)	Order	Number District LQ> 1	Order
Coconut	211,66	1	11	1
Pepper	206,18	2	5	4
Pecan	170,59	5	7	3
Areca	202,32	3	9	2
Cloves	201,10	4	7	3

Table 4 shows that based on the relative potency of Aceh Besar regency order first commodity is cocoa, the second is the clove. However, based on the number of districts with a commodity base (LQ> 1) then coconut as the first crop and cocoa is the final commodity sequence. Although the analysis is not consistent in his own order, but the seventh plantation commodities is acceptable as commodity Aceh Besar district.

LQ analysis performed to determine whether commodity subsector that has been developed has been designed in accordance with the existing regional potential in each district. Result of LQ for smallholder sub-centers of production are shown in Appendix 16. In this appendix, it can be seen that on the basis of production, all the plantation commodities has been developed in accordance with the potential region. This means that the working hypothesis is acceptable. LQ value indicates that for all commodities are above LQ> 1, indicates these commodities including commodity based in each sub-district. Only in two districts that have some third and fourth commodity in which LQ <1, this shows these commodities include into non-commodity basis; however, it has been developed in this area in the district such as coconut Lhoong, Lhoknga and Seulimum.

The results of this analysis indicate that the development of commodity basis and not on the basis of commodity subsector in Aceh Besar district is not absolutely based on the ability of the land to produce production. As has been described on the land suitability map, there was not all commodities are being developed potentially in their respective districts. For Mesjid Raya district, the most areas are suitable for the development of cloves, but clove production in this area is very small. Thus, the LQ analysis states clove is not a commodity base, with LQ = 0.10. Another important thing to be observed is that the cultivation of commodity base in areas not intensively Aceh Besar district. So the base commodity does not yet have reliability criteria in terms of the source of livelihood.

Thus, the hypothesis (1) can be accepted that the development of smallholder commodity in Aceh Besar district is not consistent with the potential of each sub-region production centers. Some of the factors that cause

this inconsistency, among others: (a) the development of smallholder not comply with the master plan of Aceh plantations that have been published since 2009, (b) most of the estates of the people in Aceh Besar district organizations still rely on the understanding of the commodities are still low, (c) has not been allocated a budget for the construction of optimal plantation; (d) low active role higher education institutions to examine the suitability of the potential of the region by commodity area.

3.3 Eligibility Prime Farm Commodities

Five commodities that have been generated from the hierarchy and LQ defined as commodities analyzed feasibility. Eligibility is analyzed financial feasibility and economic viability. Financial feasibility based on investment criteria, assuming the use of technology, the means of production and the intensification of the real estate business respondents.

The analysis showed that the five commodities plantation in Aceh Besar should be developed with the investment criteria NPV, Net B / C, IRR, PBP BEP and are shown in Table 5 below:

Table 5. Summary of Investment Eligibility Criteria Five Plantation Commodities Dependable People In Aceh Besar district in 2012.

Commodity		Investments Criteria			
	NPV	Net B/C	IRR	BEP Productivity	PBP
Coconut	1.613.938	1,39	19,39	493	24
Pecan	3.904.801	1,39	21,11	101	16
Cloves	34.148.985	2,34	29,40	347	11
Arecan	180.304	1,02	18,98	694	18
Pepper	38.916.889	2,82	34,07	261	8

Based on the five investments criteria above, prior estate commodity of the most viable is the first clove, pepper as the second, the third is pecan, coconut as the fourth and areca nut as the fifth.

In terms of the five commodities revenue are not causing the income gap between the development areas. As we understand that the different income arises because of differences in the ownership of resources and factors of production. For those who have more production factors, will earn more revenue as well. To measure the relationship of income to the type of business use is the cumulative percentage of farm families head planters with a cumulative percentage of income derived from farming seven plantation commodities above during the period of a year, as shown in Table 6 below.

Table 6. Cumulative Number and Proportion of Households and Income of Farm Plantation Commodities Prime in Regional Research.

Commodity	Nmber of Farmer Households (HH)	Production Value (Rp.000)	Proportion of HH Farmers (%)	Percentage of Income (%)	Cumulative HH (%)	Cumulative Revenue
Coconut	14.557	35.820.000	54,34	31,58	54,34	31,58
Pecan	2.707	39.528.000	10,10	34,85	64,44	66,43
Cloves	5.742	20.496.000	21,43	18,07	85,88	84,51
Arecan	2.973	9.174.000	11,10	8,09	96,98	92,59
Pepper	810	8.400.000	3,02	7,41	100	100
Number	26.789	113.418.000	100	100		

Sources: Dishutbun Aceh Besar district, 2011 (processed)

The developmental of coconut, pecan, clove, and coffee provide a varied impact of increased revenues as a result of the development of this commodity. Developmental of plantation commodities are providing equitable distribution of income varies among districts production centers. When we refer to the theory of economic growth as a result of the higher intensity activity can lead to the unbalance development incomes. Moreover, this activity is impartial because the potential of different regions. Cummulative causation theory model is developed by Myrdal, 1957; Kaldor, 1970, and Dixon, 1975 (quoted by Chief, 1997). This theory believes that market forces can not eliminate the disparity between regions, but actually make a difference. In

terms of Myrdall, strength backwash effect (negative feedback effect) is much higher than the effect of the spread (spread effect), because the transfer of capital and labor between regions is unbalanced.

So far, cloves and pepper is a contributor of lowest value to the income. This is because the area of land and crop productivity is still very small. As noted in the previous section that, cloves and pepper occupy sixth and seventh as a candidate commodities Aceh Besar regency. In terms of development potential commodities cloves and pepper is still quite large. If we see from the results of the survey sample farmer apparently dominant contribution pepper farm approximately 48 percent of its revenue. In broad terms pepper plants that have been cultivated by the people in the three main districts is less than 0.5 hectares per family. People's desire to develop the commodity is still constrained by several factors including: (a) seeds, (b) institutional UPT, and (c) the agribusiness system.

Starting from various types of agricultural areas may be determined as specific areas for pepper commodity development. Determination of priority commodities is based on the shift of the total area of plantation commodities. Expansion and relocation centers indicating a shift in production from one district to another district. Local pepper seeds ever victorious in Aceh Besar district has now rare. Development of superior pepper that has been spearheaded by the Department of Forestry and Plantations most have yet adaptive Aceh. Pepper farmers in some districts still have no manage skilled intensive of farming in accordance with the technical requirements needed for superior pepper. Pepper cultivation of local superior is easier because it can give results without having to manage intensively. While superior pepper recently developed is greatly in response to fertilization, but will not bear fruit if it is not nurtured.

Potential Relationship with Regional District Specialization or Diversification Options

Districts, as the smallest area unit has a different potential in developing both commodity specialization and diversification. In accordance with the revenues of David Hendri (2005) that in order to determine the development of areas that can be optimized by specialization or diversification of commodities by using several analytical tools that include: (a) localization coefficient (α), (b) specialization coefficient (β).

(a) Localization coefficient (α)

Analysis of deployment activities to develop commodity in Aceh Besar district describes the level of agglomeration. The production of each commodity crop plantation spread in different districts according to their production centers. Yet this has centered on the production center of each commodity. This is reflected in the coefficient of localization commodity, shown in Table 25. In the following Table 25 shows that only clove localization has the coefficient (α)> 1. Total production of coconut in 22 districts varies. Similarly, in five districts (Kuta Baro, Pulo Aceh, Montasik and Kuta Cot Glei and Darussalam), the distribution of production is spread evenly so that it can be concluded that the localization of a coconut grove is not centered. It is similar to cloves, coffee, pecan, areca and pepper. From the testing of this hypothesis can be concluded that the development of smallholder commodity in Aceh Besar district not converge according to the polygon development.

(b) Specialization coefficient (β)

The analysis of Specialization coefficient (β) used to determine the commodity specifications developed in a particular sub-region, so as to know the reliability of comparative. Components of the proper parameters in the analysis are the income that comes from smallholder farming especially in certain commodities. The results of the analysis for the seven commodity plantation in Great Aceh district shows the value of β <1, as shown in Table 7 below.

Table 7. Parameter Analysis of Specialization and Diversification of Commodities Estate People in Aceh Besar district.

Commodity	Total District LQ> 1	Coefficient of Localization (α)	Specialization Coefficient (β)
Coconut	11	-1,16	-1,97
Pecan	5	-1,10	0,93
Cloves	7	0,41	-0,52
Arecan	9	0,46	0,47
Pepper	7	-0,01	0,31

Sources: Appendix 15, 16 and 17.

Referring to the basis of the distribution of districts with LQ values > 1 for all commodities, it shows that four or more districts have nearly the same commodity. This means that there is not any one district in Aceh

Besar regency which specialize commodity crops. All districts did diversifying plantation commodities in their respective territories.

Based on the theory of districts as the smallest unit has a key region criteria, among others: (a) The area has a regional economic driver of economic activity, (b) The area should have the advantage of economic sectors that could encourage other sectors of economic activity in the region itself and the effect, and (c) Regions prime could not stand alone but must have relevance to the front and back with some areas / regions support (Napitupulu, 1999).

Potential superior production centers of sub-districts supported by the natural resources that still allow it to be developed requires a touch of technology and adequate capital. Theoretically, it is necessary to have good planning, the main problems of technology and capital. Appropriate model should have a plan in accordance with the concept of development of a region. Economic base planning model as one of the approaches used in the identification of potential sectors that could be a driver of growth and development of the region is the economic base theory. According to this theory, the growth and development of a region depends on a request from outside the area to the production area. The economy of a region is divided into sectors or base and export base sector basis.

Developmental model cannot be applied and implemented in the event of discrepancy between the potential of the region with the ability of its resources, both capital and mastery comes to technology. The results indicate that the sub-region as the smallest unit in this area has the potential that varies according to the agro-climate, agro-ecological farming community and ability. In developing both commodity specialization and diversification are also highly dependent on the infrastructure and the amount of land available that meet the technical requirements.

The results above was for most districts (8 out of 12 districts) still use strategy diversified development. Diversified commodity per district will reduce the risk. The greatest risk for the development is the change in direction of commodity demand, price, and risk of cultivation. To overcome these commodities development in all districts in Aceh Besar district uses strategy of diversification, as indicated by the value of $\beta < 1$, each district developed more than one commodity and for every gardener to plant more than one crop plantations. There is a tendency that commodity becomes the top estates in the district is not a commodity basis, as growth in acreage and production is relatively slow. In contrast to above description, other commodities which are not as the prime commodity become the base commodity in the district.

These results are also in accordance with those obtained by Tobari (2007) that the plantation commodities that have for developing the superior potential relatively faster in the district concerned, not necessarily a major commodities. As an example for pepper commodities that are mostly in Mesjid Raya and Montasik sub district, not becoming a commodity because its development is relatively more slowly and tend to be impaired in the sub-district or district other than the district as a whole. This is true also in commodities of cloves in Lhoong and Lhoknga District, despite the relatively faster growth is in the sub-district or district other than the district as a whole, but the commodity is not a commodity basis in two districts were thus not included into prime commodity of the sub-district.

Developmental of smallholder commodity in this area depends on the courage of farmers at risk. Commodity specialization encouraging high productivity, but may be lower incomes. Decline in demand and prices often lead to sluggishness in production, such as those experienced in the Lhoknga District, clove farmers and the Aceh island. Instead of rising prices and increased demand motivates acreage and production as happens in commodities clove in this area. In a period of three years (2005 to 2008) there is an increasing in acreage between 14 to 21 per cent in five production centers cloves. Instead there is a reduction of the clove harvest between 5 to 8 percent for clove production centers in Aceh Besar district. Most farmers seek more than one crop on the land. Thus the revenue contribution of each commodity is relatively small. During the development of plantation commodities in this area have not been referring to the plantation master plan of Aceh province. As a result, patterns of diversification that relies on creativity farmers were more dominant.

4. Conclusions And Suggestions

4.1 Conclusion

The developmental of smallholder commodity in Aceh Besar district have not been consistent with the potential of each sub-region production centers. Some of the factors that cause this inconsistency, among others: (a) the development of smallholder not comply with the master plan of Aceh plantations that have been published since 2009, (b) most of the estates of the people in Aceh Besar district organizations still rely on the understanding of the commodities are still low, (c) a budget has not been allocated for the construction of optimal plantation; (d) low active role higher education institutions to examine the suitability of the potential of the region by commodity area.

Commodities which elected, coconut, pecan, clove, pepper and areca has became a prime of the community as a source of livelihood of the plantation subsector. Commodity development strategy in Aceh Besar district best diversification strategy is based on the combination of the potential region, commodity types, and support for infrastructure to support agribusiness. Each district developed some commodity as well as to overcome the commodity price fluctuations.

4.2 Suggestions

Based on these results the Department of Forestry and Plantation along with the Agency and other stakeholders to formulate a master plan recommended the development of agro-based plantation in each sub-district coconut production centers in Aceh Besar district. Plantation commodity to the welfare of society is Coconut, Pecan, Clove, Pepper and Areca in which their development can be done based on agro-climatic and infrastructure support agribusiness development Commodities.

5. References

Agussabti dan Romano, 2011. *Comprehensif Study on Nutmeg Farming as Prime Commodity Relay for Aceh Peace and Gender on Development*, FORUM PALA Aceh dan UNDP.

Dillon, 2006. *Agriculture Piloce*. *Jurnal Forum Penelitian Agro Ekonomi*. Vol.24. Page. 90-93

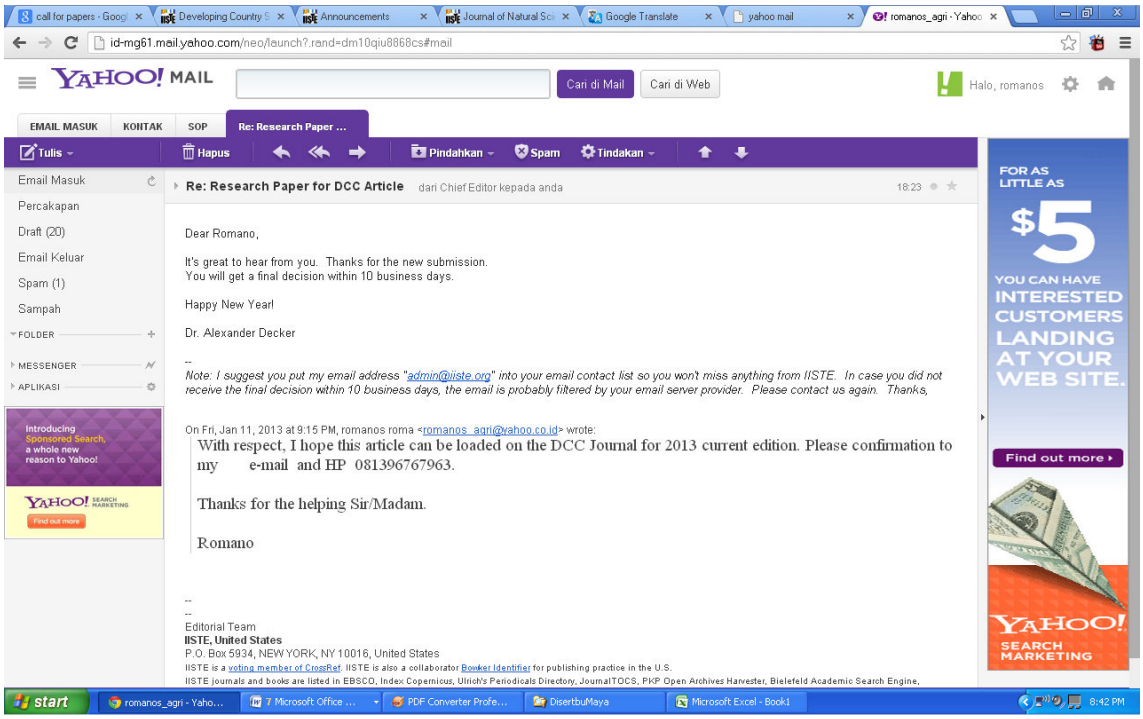
Galindo,Isabel Morales, Regional Development Through Knowledge Creation In Organic Agriculture,*Journal Of Knowledge Management*,Vol 11 No 5,Emerald Group Publishing United,2007

Glasson, John. 1990. *Regional Planing***.** Translat by Paul Sihotang. UI Press. Jakarta

Hendri, David, 2005, *Sintesys character on Agropolitant Zone Planning*, Gadjah Mada University Press, DIY.

Hendayana Rahmah, Location Quotient (LQ) Aplication Methode on National Prime Commodity, *Jurnal of Agriculture Informatic* Desember 2003 Edition Bogor. Page. 112-115

Hoover, Edgar M. and Frank Giarratani. 2002. An Introduction to Regional Economics : *How Regions Development*. Needleman.



Dear Romano,
It's great to hear from you. Thanks for the new submission.
You will get a final decision within 10 business days.
Happy New Year!
Dr. Alexander Decker
Note: I suggest you put my email address "admin@iiste.org" into your email contact list so you won't miss anything from IISTE. In case you did not receive the final decision within 10 business days, the email is probably filtered by your email server provider. Please contact us again. Thanks,
On Fri, Jan 11, 2013 at 9:15 PM, romanos roma <romanos_agri@yahoo.co.id> wrote:With respect, I hope this article can be loaded on the DCC Journal for 2013 current edition. Please confirmation to my e-mail and HP 081396767963.

Thanks for the helping Sir/Madam.

Romano