A Study of Plantation Sector in Indonesia

Junaiddin Zakaria

Faculty of Economics/Muslim University of Indonesia

ABSTRACT: *The aim of this research is to analyze the relatively more superior and high competence commodity. It gives illustration to the implication of the purpose of policy and strategy of superior commodity development to a strong competence and local economic development is made unity and continue. The tools of analysis used to measure superior commodity are location quotient analysis (LQ). This tool of analysis is used to learn about base commodity and non-base commodity. The research result indicates that palm commodity has higher competiveness than cocoa and cashew commodity. It is more important to develop other commodities out of base commodities like fisheries, breeding, managing of industrial commodity subsector out of base commodities, in order to be base commodity in the future.*

KEYWORDS: *location quotient, Plantation, Morowali*

I. INTRODUCTION

Debate on theory of the third world economic development gave rise to various speculations, including Rostow (1959) who stated that the growth of economy is divided into; (1) traditional society, (2) preconditions for takeoff, (3) take off period, (4) maturity, and (5) high mass consumption. Others viewed that the population factor to be twice in growth is potential to create abundant numbers of labor that in excess will result in the wages to go down. Such wages may only be used to finance the minimum livelihood with the result that the economy will be in stationary state (Ricardo, 1927).The debate causes a variety of conceptions to emerge for explaining that prior to developing national economy of a country is to develop local economy. The development of local economy is a process by which local governments and all society components manage various available resources and work out a partnerships program to create new jobs and stimulate economic growth in the region (Blakely, 1989). Export development of a country is not only determined by the comparative factors but also the competitive advantage. The core paradigm of competitive advantage is the superiority of a country in global competition that is not only determined by its comparative advantage (classical theories and HO) but also the competitive advantage of protection or facility assistance from government. Competitive advantage facility is not only owned by state, but also the corporations in the state individually or jointly. Competitive advantage is more dynamic to changes, for example, the technology and human resources (Tambunan, 2001)

The development in Indonesia adopted the thinking WW Rostow's stages of development from traditional society, preconditions for takeoff, takeoff towards maturity and high consumption society, bounced on the public phase of pre-takeoff. This condition resulted in an imbalance between economic growth and even distribution of development. It makes the economic growth unhealthy and Indonesian economy in a warming condition, industrial growth be protective and able to compete in the global competition, production sector or real sector grow facilitated by imprecise monetary policy and siding with the large industrial of nonresistant to compete and survive by the blow of world economic turmoil, so as to create economic development on financial crisis, Indonesia is required to play an active role in the globalization process by linking Indonesia to the outside world (Anwar Nasution, 2003). In Indonesia, the condition can be achieved by regional agricultural development aiming at improving food security, competitiveness and income of farmers. Therefore, it is necessary to determine the sub-sectors or agricultural commodities as the basis of regional economy. Using Location Quotient approach, the regional economic sector is classified into two sectors: base sector and non-base sector. The non-base sector is a sector functioning as a service in concerned area, while base sector is sector whose services oriented outside the concerned region to bring in revenue and investment flows that this sector can be used as a base to drive the economy and create employment opportunities (Wibowo & Sutrisno, 1993).

II. SUPERIOR COMMODITIES

Each region has different characteristics of territory, population, and resources making the potential of each area be different and influence the direction of policy development of economic activities in the region. To determine the leading commodity in a region is a necessity that the commodities be able to compete on an

ongoing basis with the same commodities produced by other regions are efficiently cultivated commodity in terms of technology, social economy and has comparative or competitive advantages. The concept of comparative advantage theory was proposed by David Ricardo. What form the background of this theory was the authorization of different resources in each region and different natures that the opportunities and ability to make production be different. Ownership and authorization of the resources by a country can become a major capital to create more products than a country of few resources. The difference of resource ownership between one country and another becomes an excuse to carry out trade activity between countries because of exchange principle to cover deficiencies in each country.

Emphasis on comparative advantages aimed at the use of production factors to produce a commodity relatively cheaper in the country compared to other countries. Production factor in comparative advantage theory by Ricardo is the cheap labor in terms of wages or remuneration they receive. Related to concept of comparative advantage is economic feasibility, and related to competitive advantage is financial feasibility of an activity. Financial feasibility sees the project benefits or economic activity from the side of institutions or individuals involved in these activities, while the economic analysis assessing activity beneficiary to society as a whole without seeing who donate and who receive benefits (Kadariah *et al.*, 1978). The more suitable concept to measure financial feasibility is competitive advantage or often called "revealed competitive advantage" as a measure of competitiveness of an activity on actual economic conditions. Furthermore it is said that a country or region having a comparative or competitive advantage shows potential advantages of natural, technological mastery, as well as managerial skills in the relevant activities (Sudaryanto & Simatupang, 1993). Determining national and regional commodities is the first step towards agricultural development which is based on the concept of efficiency to achieve comparative and competitive advantages in free trade era. Leading commodity is a commodity that has a strategic position based on both technical considerations (soil and climate) and socio-economic and institutional (mastery of technology, human resources, infrastructure, and local socio-cultural conditions) to be developed in a region (Hendayana, 2003).

Agricultural development efficiency can be reached by developing a commodity that has a comparative advantage in both sides of supply and demand. On the side of supply, leading commodity is characterized by the superiority of its growth in biophysical conditions, technological, and socio-economic (technology authorization, human resource capabilities, customs, and infrastructure) of the farmers in a region. On the side of demand, leading commodity is characterized by the strong of demand in both domestic and international markets. In the scope of district/city, the leading commodity is expected to meet the following criteria: (1) refers to the criteria of national leading commodities; (2) has a high economic value in the district; (3) self-sufficient and capable of supplying other areas/export; (4) has prospective market and be a highly competitive commodity; (5) has the potential to increase the value added in agro-industry; and (6) can be cultivated widely in the district (Syafaat & Friyatno, 2000)

III. LOCATION QUOTIENT PLANTATION COMMODITIES

Location quotient approach can serve as a good planning tool (Isserman, 1977) Determination of leading commodity by location quotient (LQ) approach is used to discuss economic conditions, identify the economic activity specialization or measure the relative concentration of economic activity to get an description about the establishment of advantage sector as a leading sector of economic activity (industry). The basis of discussion is often focused on the aspects of employment and income. But in fact LQ technique can also be used to analyze the benefits of various development sectors (Bendavid, 1974). The using LQ approach is not only limited to discuss economic discussion but also to determine the distribution of commodities or to identify areas based on its potential. Location Quotient (LQ) analysis is a way to determine the ability of a region in production sectors of certain commodities (Kadariah, 1985). LQ analysis presents a relative comparison between the ability of a plantation production activity in a district that was investigated and the same production sector capabilities at district level. It is therefore recognizable whether or not area is in balance in terms of plantation production activities. Operationally, LQ is defined as percentage ratio of total activity in the sub-region number -i toward the percentage of total activity of the region observed. The assumptions used in this analysis are: (1) geographical condition is relatively uniform, (2) pattern of activities is uniform, and (3) any activity produces the same product.

This study aimed to analyze the commodity with high comparative advantage. The population is sub-sector plantations in Indonesia (Morowali Region Central Sulawesi province), covering the commodities of palm, cocoa and cashew. The indicator or parameter to be measured is production value of the palm, cocoa and cashew. The production value was analyzed by using the location quotient analysis (LQ) to discuss economic conditions, led to identification of economic activity specialization or measure the relative concentration of

economic activity to get picture in determining the advantage sector as a leading sector of economic activity. This method is used to indicate the location of concentration / base (activity). LQ is an index to compare the segment of sub-regions in certain activities with the segment of these activities in a total area of activity with the following formulation:

$$LQ = \frac{Pij \, / \, Ptj}{Piw \, / \, Ptw}$$

Equation:

LQ_i	=	*location quotient* coefficient from a commodity -i observed
Pij	=	Production of commodity -i in area j or observed area (Morowali)
Ptj	=	Production of all plantation commodities observed in j area (Morowali)
Piw	=	Production of commodity-i in central sulawesi province
Ptw	=	Production of all plantation commodities observed in central sulawesi province

IV.   RESULT

Morowali is one of the districts in Central Sulawesi, which has the potential for development in the sub-sector of plantation commodities such as palm, cocoa and cashew. It is possible that the area has sufficient land,   farmers and entrepreneurs have a desire for the cultivation of plantation commodity subsectors in the area. To know more details about the development of plantation commodities in this area, it can be seen in the following Table:

Table 1.Land (ha), Production (ton) Commodity of Plantation Sector
Morowali Region Centre Sulawesi Province

Years	Palm		Cacao		Cashew		Total
	Land (ha)	Production (ton)	Land (ha)	Production (ton)	Land (ha)	Production (ton)	Production (ton)
2011	8.825,00	6.975,40	17.718	4.753,60	2.744,00	278,00	12.007,00
2012	8.825	6.086,50	18.245	5.429,50	5.746	584,00	12.100,00
2013	9.821	8.560,00	11.742	5.489,09	1.084	126,00	14.567,09

Source : BPS-Statistics Indonesia, Morowali (2014).

Generally, the commodities observed in the plantation subsector in Morowali denote an unstable development or fluctuating from 2011 to 2013 as shown in Table 1. It can be seen in the production development. View from the use of land from 2011 until 2013 that the land is dominated by cocoa, but the production is dominated by palm. It shows that society and employers are more focused and more interested in the development of palm, then cocoa, and the last cashew. This condition depends on the availability of land suitable for palm development, persons ready to handle palm and technological support the society can use. Instability of production development can occur due to unfavorable natural conditions, poor management, farmers not master the production techniques, or local government not focus on giving direction or policy towards development of commodity plantation sub-sector that the production development sometimes decrease and sometimes also dropped sharply. Therefore, it is necessary the relevant department provides regular guidance that commodity of plantation sub-sectors can develop more stable and profitable to be a long-term commodity basis.

For a commodity of being the base commodity the local governments must set policy direction of development to be more focus or specialization on superior commodity development that the use of local resources be more efficient and effective. Commodity plantation subsector in Central Sulawesi is not only developed in Morowali but also in other districts, such as Donggala, Parigi Moutong, Poso regency, Tojo Una-Una, Buol, Toli-Toli, and Banggai Islands. Plantation crops to be trade commodity has a strategic role as income source of state foreign exchange and the more important is to increase production and job opportunities to absorb a lot of workers. In 2011-2013 the development of plantation commodities in Central Sulawesi consisted of 18 commodities with a total area of 86.81 percent managed in the form of populace estate and 13.19 percent of private estates. Development of commodity production of palm, cocoa and cashew in Central Sulawesi province can be seen in Table 2.

Table 2. Production (ton) commodity of plantation sector in Central Sulawesi Province

Years	Palm (ton)	Cacao (ton)	Cashew (ton)	Total (ton)
2011	48.825,00	44.408,00	2.224,00	95.457,00
2012	39.000,00	41.217,00	2.015,00	82.232,00
2013	42.000,00	39.216,00	2.003,00	83.219,00

Source: BPS-Statistics Indonesia, Morowali (2014).

Table 2. Shows the development of commodity production of estate subsector in Central Sulawesi from 2011 -2013. In general, the three commodities observed such as palm, cocoa and cashew production progress up and down. In 2011, palm had a production capacity of 48 825 tons, in 2012 the production decreased and increased again in 2013 to 42,000 tons. Cocoa and cashew production fell continuously in 2011 until 2013. This fact shows that the public and business man in Central Sulawesi is more focused on the development of palm. The discussion used method analysis of location quotient (The LQ) because the structure production will be base and non-base commodities. A commodity in certain areas having an index value LQ > 1 shows that the commodity is a base commodity. So does on the contrary, if the LQ coefficient is smaller than one indicating that the commodity is not base commodity. This model is expected to provide information about commodities that are considered superior. With the base sector, a particular area will be able to build a self-reliance local economy. For more details analysis result the Table below shows.

Table 3.Location Quotient (LQ) Coefficient of commodity in Morowali Region Central Sulawesi

Years	Palm	Cocoa	Cashew
2011	1,13	0,84	0,99
2012	1,06	0,89	1,77
2013	1,16	0,79	0,36

Source: Data processed (2014).

The Table 3.Indicates that palm commodity in observation period of 2011-2013 denoted LQ coefficient greater than one (1.13; 1.06; 1.16). LQ coefficient of Cocoa was smaller than one (0.84 ; 0.89 ; 0.79), and LQ coefficient of cashew was also smaller than one in 2011, namely 0.99, and in 2012 increased to 1.77, then decreased in 2013 to 0.36. Referring to the results of LQ coefficient, of the three commodities analyzed, palm has a higher comparative advantage than cocoa and cashew. This fact indicates that Morowali should focus or specialize more on developing palm as it is more efficient and more profitable than cocoa and cashew. It is expected that palm in this area will have a higher competitive power so as to have the prospect of a broader marketing both domestically and abroad, and can run continuously for long. The advantage of base commodity owned by this area is due to the conditions that support to increase production. For Morowali conditions, agricultural sector and service sectors seems to dominate economic sectors and have more opportunities to be developed. The purpose of the economic development policy in Morowali as stated in the Long Term Development Plan (RPJP) and the Medium Term Development Plan (RPJM) is that Morowali will become the leading district in commodity development, especially in the field of farming development. Direction of policy will be focused on improving society welfare in general and the welfare of farmers in particular. Strategies and policies to be used to achieve goal are; (1) Strengthening local economy on the base of agribusiness and developed in a participatory manner through group strengthening, (2) Establishment of Agribusiness Development Center focuses on commodity with high competitiveness by developing farming in a model of an integrated cluster approach and integrated with other sectors, and (3) Zone development is arranged through an integrated management system in which there is an element that serves as a training ground for farming development, market information center and service center called the Leading Commodity Business Clinic (KBKU), (4) Strengthening the economic structure by developing leading commodities, ranging from upstream to downstream in order to have impact on employment and the economic structure shifting from the dominance of agricultural sector of non-base sector to base sector.

Government's policy of increasing leading commodities production of LQ > 1 (base sector) is then directed to; (1) Optimizing the utilization of land capacity and extending the highly competitive commodity and stimulating farmers to increase productivity to target as expected by government and farmers, (2) Providing subsidies and capital assistance through economic institutions on local authorities guarantee by a profit sharing or an affordable interest rate, and (3) Improving the accessibility in the field of infrastructure development and access to a wider market.

With the strategy and policy, it is expected that leading commodity of high competitive power can survive and be developed towards value-added increase, household incomes development and job creation. In addition, the presence of agribusiness development district can also put pressure on agro-industry development so that the economic structure in Morowali becomes stronger.

V.   CONCLUSION

The study concludes that palm commodity of plantation subsector Morowali Central Sulawesi has a comparative advantage relatively higher than the cocoa and cashew. Palm commodity is a base commodity of plantation subsector in Morowali and its development should be focused to be more efficient so that it becomes a competitive and profitable commodity.   The local government of Morowali needs to pay attention the followings to maintain the advantage commodities on base sector: (1) The development of palm should receive special attention in terms of increased production and marketing activities, (2) it is necessary to develop plantation subsector commodity processing industry so that the commodities can grow sustainably and can increase the added value in the long term, (3) required the agribusiness development zone in an integrated manner with other sectors supported by a series of local government policies to foster greater synergy between economic sectors, and (4) required mapping of potential areas that could support the existing base sectors and the region potential to create a new basis so as to support the strengthening of economic structure in Morowali District.

REFERENCES

[1]   Bendavid-Val, A. (1974). Regional economic analysis for practitioners: an introduction to common descriptive methods. Praeger.
[2]   Blakely, Edward J. 1989. Planning Local Economic Development: Theory and Practice. Newbury Park, CA: Sage
[3]   BPS-Statistics Indonesia. Kabupaten Morowali (2014).
[4]   Hendayana, R. (2003). Aplikasi metode location quotient (LQ) dalam penentuan komoditas unggulan nasional. Informatika Pertanian, (12). 1-21.
[5]   Isserman, A. M. (1977). The location quotient approach to estimating regional economic impacts. Journal of the American Institute of Planners, 43(1), 33-41. http://dx.doi.org/10.1080/01944367708977758
[6]   Kadariah, L. Karlina dan C. Gray. (1978). Pengantar Evaluasi Proyek. Lembaga Penerbit FE Universitas Indonesia. Jakarta.
[7]   Kadariah.(1985). Ekonomi Perencanaan.Lembaga Penerbit FE Universitas Indonesia. Jakarta.
[8]   Nasution, A. (2003). Financial Sector Reform and Indonesia's Economic Crisis of 1997–98. *Financial Liberalization and the Economic Crisis in Asia, London and New York: Routledge*, 47-81.
[9]   Ricardo, D. (1927). The Principles of Political Economy & Taxation (No. 590). G. Bell.
[10]   Sudaryanto, T., & Simatupang, P. (1993). Arah Pengembangan Agribisnis: Suatu Catatan Kerangka Analisis dalam Prosiding Perspektif Pengembangan Agribisnis di Indonesia. Pusat Penelitian Sosial Ekonomi Pertanian. Bogor.
[11]   Syafaat, N., & Friyatno, S. (2000). Analisis Dampak Krisis Ekonomi Terhadap Kesempatan Kerja dan Identifikasi Komoditas Andalan Sektor Pertanian di Wilayah Sulawesi: Pendekatan Input-Output. Jurnal Ekonomi dan Keuangan Indonesia, 40.
[12]   Tambunan, T. (2001). Perekonomian Indonesia: Teori danTemuan Empiris. Ghalia Indonesia.
[13]   Wibowo, Rudi & Sutrisno. (2002). Konsep dan Landasan Analisis Wilayah. Fakultas Pertanian Universitas Jember.Jember