



## The Potential of Economicbase of The Livestock Sector in Kediri, East Java

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Received: 27 February 2018; Revised: 24 April 2018; Accepted: 27 April 2018

### Abstrack

Purpose of this study is to describe the potential of economic base of livestock commodities in Kediri -East Java- Indonesia. The research was conducted from March 2017 by using exploratory method, referring to secondary data in Statistic Center's publication of Kediri Regency. Location Quotient Analysis (LQ) data analysis was used to determine the economic base of livestock sector in Kediri Regency. The results of the research are identified as follows: 1) Sub-district Base of beef cattle livestock that is located in Mojo, Semen, Ngadiluwih, Ngancar, Plosoklaten, Gurah, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan. 2) Districts of dairy cattle commodity base include Ngancar, Plosoklaten, Kandangan, KayenKidul, and Gampengrejo. 3) Subdistrict base of buffalo cattle commodity include Mojo, and Ngadiluwih, Kepung, Kandangan, Badas, Kunjang, Gampeng, Ngasem, and Grogol. 4) The sub-districts of horse livestock commodities include Mojo, Semen, Kandangan, Kunjang, Plemahan, Gampengrejo, Banyakan, Grogol, and Tarokan. 5) Sub-district of pigs commodity base include Wates, Ngancar, Gampengrejo, and Banyakan sub-districts. 6) The districts of goats / sheep bases include Mojo, Semen, Kras, Ngancar, Plosoklaten, Gurah, Kepung, Kandangan, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan. 7) The sub-districts of the commodities of chicken breeds include Mojo, Semen, Ngadiluwih, Kras, Gurah, Kepung, Kandangan, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan. 8) Sub-districts of commodities of chicken breeds include Kras, Ringinrejo, Kandat, Wates, Plosoklaten, Puncu, Pare, and Badassubdistricts. 9) The districts of livestock commodity base include Mojo, Semen, Ngadiluwih, Kandat, Ngancar, Kandangan, Badas, Plemahan, Pagu, Gampengrejo, Ngasem, Banyakan, Grogol and Tarokansubdistricts. 10) Rabbit livestock commodity base covers the sub-districts of Semen, Kras, Ngancar, Plosoklaten, Gurah, Kepung, Kandangan, Gampengrejo, Ngasem, Banyakan and Grogol.

**Key words:** location quotient, livestock sector, kediri regency;

### Introduction

Economic growth is an indicator of the government's performance success in promoting economic development in each country. Every

country in the world is very concerned about the rate of economic growth, including Indonesia that currently must be ready with various business competitions that is unlimited. Accel-

eration of national development will be realized if it is supported by the improvement of the existing provincial or district economy. Independence economic will be achieved by moving the strategic sectors of the domestic economy to be able to meet all the needs of people's lives. Utilization of a proportional area between the area that is used for settlements, socio-economic activities, and conservation efforts, improving the sustainable use of natural resources and environment, improving the management of natural resources and the environment to support the quality of life, as well as improving the maintenance and utilization of local resources as capital development.

Food problems will become more complex when international markets that are a source of food security are not conducive. Driven by these conditions, self-sufficient food fulfillment options are a rational choice for many countries, including Indonesia itself. Due to there is no longer a country that can guarantee the stability of international markets. The World Food Organization (FAO) predicts that commodity prices will rise and experience volatility until 2020. This condition will lead to food supply difficulties for the world in the future, where natural disasters occur due to global warming and weather conditions. This condition will be followed by the problem of poverty.

Kediri Regency is an area that has great potential for the development of agricultural and livestock economic base business, because the agro-climate, natural resources and culture of the community support all these activities. Kediri Regency is very potential as a producer of agriculture both food crops and horticulture, and fruit crops, in the field of livestock Kediri also contribute significantly in the province of East Java.

Starting from the mapping of superior economic base owned by Kediri Regency by looking at the potential of resources, supporting facilities, the analysis of the potential of the region, the formulation of objectives and targets, and ultimately become the basis in the preparation of agribusiness-oriented regional development plan and become an integral part in improving welfare and income community of Kediri Regency.

## Material and Methods

The national development planning system is a unity of development planning procedures to produce long-term, medium-term and annual development plans implemented by the state and community organizers at the Central and Regional levels. The national economic development is organized based on democracy with the principles of togetherness, justice, sustainability, environmental insight, and independence.

The inclusive growth of maximizing economic potential and incorporating as much of the workforce in a decent work market and in favor of impoverished families will be able to foster equity improvements, and the reduction of inequalities. The creation of support to the inclusive economy can encourage growth in various development sectors such as agriculture, agro-industry, and services to avoid growth that tends to be capital-intensive and not labor-intensive.

One strategy that can be used in regional economic development through the agricultural sector in the era of regional autonomy today is through the development of regional commodities. The development of the commodity-based region is expected to spur the growth of an area that ultimately can increase the income of the community.

In the development of regional industries should begin to try to explore the available natural resources and the ability of the community by producing something unique. This uniqueness is a separate value that other regions do not have, and therefore would be an advantage for the region that owns it. The selection of economic base should consider the condition of the region with due regard to competition criteria such as: the existence of high added value, the existence of linkages and opportunities to compete in the market outside the region / national, so the great impact in giving stimulus to the regional economy.

Determination of base economy, especially commodity of livestock in a region is the first step toward the development of livestock which is based on the concept of efficiency to achieve comparative and competitive advantage in face of trade competition faced. Step toward efficiency can be reached by using commodities that have comparative advantages both in terms of harvested area, production, and supply or demand.

The leading sector is a sector that can be developed further and aims to improve the economic growth of a region. The superior sector is formed from the development of production generated by the potential of the region. The superior sector is also not only able to meet the demand from within the region alone but also able to meet the demand from outside the region. It is said that the leading sector if the sector has advantages both comparative and competitive (Erawati, 2011). The leading sector can be one of the drivers in accelerating economic growth in each region.

The Location Quotient (LQ) method is a data analysis technique that examines the condition of an economy of economic activity, so that LQ value is often used for the determination of superior sectors. Tarigan (2005) stated that the calculation results of Location Quotient shows a comparison between the role of a sector or industry in a region to the magnitude of the role of sector or industry in the reference area.

Stipulation of a commodity as a pre-eminent commodity must be adapted to the available natural resources and human resources owned by the region. Commodities selected as the region's superior commodities are commodities that have high productivity and can provide added value so as to have a positive impact on the welfare of the community. In addition, the determination of superior commodity areas should also consider the contribution of a commodity to economic growth and development equity in an area.

The method used in this research is exploratory method and collecting data and information. The data come from literature review and official documents of Kediri and or Kediri Regency Statistics. This research uses Location Quotient Analysis (LQ) method, to identify livestock sector commodity in each subdistrict in Kediri Regency. The first provision if the value of  $LQ > 1$ , meaning that this commodity has a comparative advantage, commodities not only can meet the needs of the region but also can be exported out of the region, secondly if the value of  $LQ = 1$  means this commodity does not have a comparative advantage, enough to meet the needs of its own territory and can not afford to be exported, the third if the value of  $LQ < 1$

means that this commodity does not have a comparative advantage, the commodity can not meet its own needs so that it needs supply or import from outside. Location Quotient (LQ) Location Analysis formula of all base economic commodities of livestock sector in Kediri Regency as follows:

$$LQ = \frac{p_i / p_t}{P_i / P_t}$$

Note:

- pi: Production of commodity i at the sub-district level
- pt: Production of all commodities j at the sub-district level
- Pi: Production of commodity i at the district level
- Pt: Production of all commodities j at the district level

## Results and Discussion

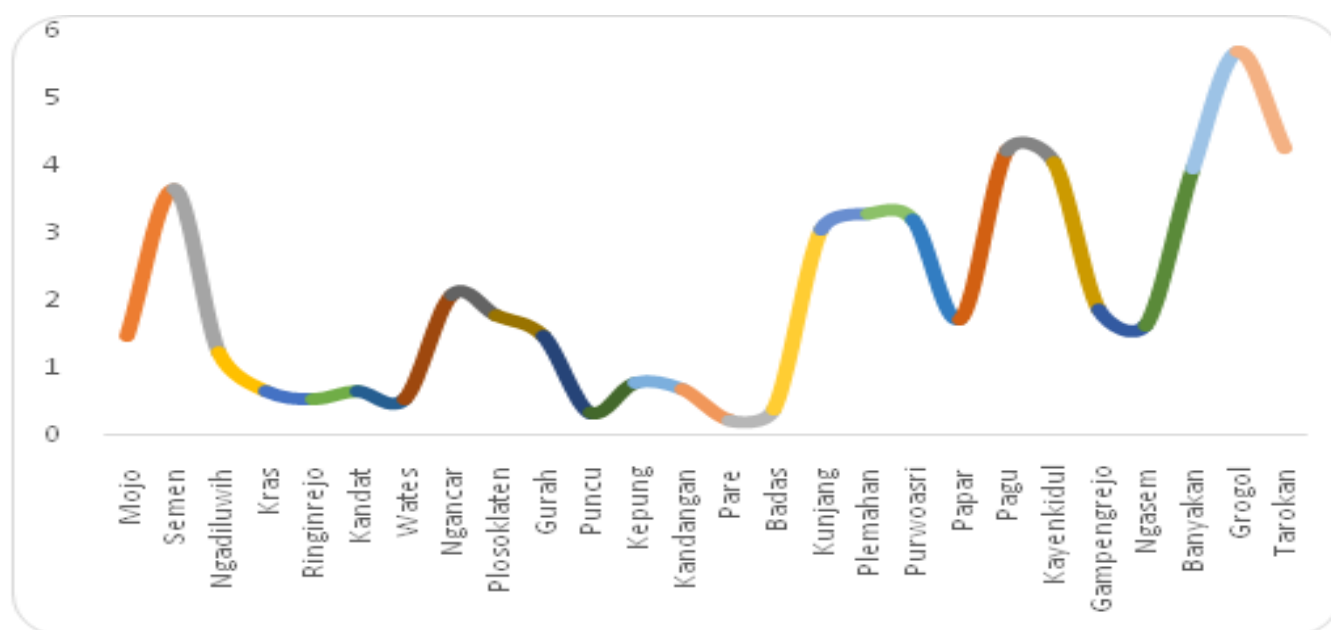
Kediri Regency is located in the southern part of East Java Province which is located between 1110 47 '05 "to 1120 18' 20" East Longitude and 70 36 '12 "s / d 800' 32" South Latitude, with boundaries as follows : North side of Jombang and Nganjuk regency. South side of Blitar and Tulungagung regencies. East side of Malang Regency and Jombang. West side of Nganjuk and Tulungagung regencies. Kediri Regency has an area of 1.386.05 Km<sup>2</sup> or 138 606 Ha which is divided into 26 districts, as well as 343 villages and 1 village. The livestock sector in Kediri Regency consists of beef cattle, dairy cows, buffaloes, horses, pigs, goats / sheep, chicken chickens, ducks / entok / ethok and rabbits.

Kediri Regency has the potential and opportunities as a region that is a contributor to the provision of livestock commodities either in East Java Province or even in Indonesia. This is based on data of livestock population of Kediri district in 2011 - 2015 showing how much and potential availability of livestock commodity resources in Kediri.

Livestock of beef cattle that exist in district Kediri region spread in 26 districts, with result of LQ as shown in picture 1.

**Table 1 Livestock Population in Kediri Regency**

livestock commodities	2011	2012	2013	2014	2015	Average
Beef cattle	268230	287943	181727	192631	202263	226558.8
dairy cows	12387	13437	8558	9029	9390	10560.2
Buffalo	468	475	382	382	371	415.6
Horse	289	292	293	292	295	292.2
Pork	2870	2985	3024	2945	2986	2962
goats / sheep	147283	170411	175411	177959	180287	170270.2
local chicken	1203000	1243000	1263000	1281000	1298000	1257600
broiler chicken	10259000	10941000	11137000	11240000	11332000	10981800
duck / etog	231000	239000	241000	244000	247000	240400
Rabbit	11431	10958	10970	11014	11058	11086.2
Amount	12135958	12909501	13021365	13159252	13283650	12901945

**Figure 1: District of beef cattle base**

Livestock sector commodities in Kediri regency include beef cattle, dairy cow, buffalo, horse, pig, goat / sheep, chicken, chicken (laying, broiler), duck / ethog / entok, and rabbit. Various potential livestock commodities are maintained by the people of Kediri regency certainly not separated with the carrying capacity of the environment and the character of the community that exist in certain districts. By using the provision that which includes the economic base if the value of  $LQ > 1$ , the economic

base of various livestock commodities in Kediri Regency as follows: (1) Subdistrict The bases of beef cattle commodities are located in the subdistrict: Mojo, Semen, Ngadiluwih, Ngancar, Plosoklaten, Gurah, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan, (2) Subdistricts of dairy cattle commodity base include: Ngancar, Plosoklaten, Kandangan, KayenKidul, and Gampengrejo. (3) Subdistrict base of buffalo cattle commodities include: Mojo, and

Ngadiluwih, Kepung, Kandangan, Badas, Kunjang, Gampeng, Ngasem, and Grogol, (4) Subdistrict of horse commodity base include: Mojo, Semen, Kandangan, Kunjang, Plemahan, Gampengrejo, Banyakan, Grogol, and Tarokan, (5) Subdistrict of pigs commodity base include sub-district: Wates, Ngancar, Gampengrejo, and Banyakan, and (6) Subdistricts of goats / sheep bases include: Mojo, Semen, Kras, Ngancar, Plosoklaten, Gurah, Kepung, Kandangan, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan.

Livestock chicken commodity base includes subdistrict: Mojo, Semen, Ngadiluwih, Kras, Gurah, Kepung, Kandangan, Kunjang, Plemahan, Purwoasri, Papar, Pagu, KayenKidul, Gampengrejo, Ngasem, Banyakan, Grogol, and Tarokan.

Subdistricts of commodity base of poultry include subdistrict: Kras, Ringinrejo, Kandat, Wates, Plosoklaten, Puncu, Pare, and Badas.

Duck / etog commodity bases include sub-district: Mojo, Semen, Ngadiluwih, Kandat, Ngancar, Kandangan, Badas, Plemahan, Pagu, Gampengrejo, Ngasem, Banyakan, Grogol and Tarokan.

Base of livestock commodities rabbit include: Semen, Kras, Ngancar, Plosoklaten, Gurah, Kepung, Kandangan, Gampengrejo, Ngasem, Banyakan and Grogol.

The existing climate in Kediri regency is very supportive for the development of livestock commodities as well as business optimization that combines various types of community businesses related to livestock business. Kediri regency is one of the areas in East Java province that has a very decisive livestock for regional and national.

A variety of potential livestock commodities that are maintained by the people of Kediri Regency due to the carrying capacity of the environment and the character of the community in certain sub-districts. But what needs to be paid attention to in this case is the condition of cattle spread and the domination of small-scale business cattle and with simple technology. Livestock business is still a side business and is not yet the main economic sector in running its

business.

Most residents of Kediri Regency who keep ruminant livestock (cattle, goats, rabbits) make the majority of these businesses a byproduct. Decision breeders make livestock business as a side-line can be caused by internal factors of farmers that courage in developing low-scale business or entrepreneurial spirit is still low. This is as the opinion of solikin (2016) stating that the level of entrepreneurial spirit in the farmer / livestock group in the district kediri is still low constrained by the motivation in running a business is traditional.

The government needs to take various strategic steps to help develop the existing livestock commodity in Kediri regency. Livestock non ruminasia (poultry) is managed with the maximum and even become a staple business, but in the case of waste processing in the form of livestock manure has not been used as an additional source of income. Willingness to process into organic fertilizer by applying microorganism decomposers have not been optimally run so that sometimes a factor of air pollution for residents around the location of livestock.

Participation of all parties will be more decisive for the development of livestock sector in Kediri Regency. This is intended to realize the economic power of the people of Kediri Regency and the fulfillment of animal protein requirements for the people of Indonesia.

## Conclusion

Kediri regency has characteristics of potential economic base of livestock sector spread in each district, with 10 livestock commodities by small scale farmers.

## Suggestion

The district government needs to take appropriate strategic steps in developing the potential of the livestock sector by considering the internal and external factors that can be used as the starting point for the development and production of livestock to improve and empower farmers' economics.

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