Agropolitan Area Development Model as an Effort to Improve Local Economic Growth Enrekang District

Sandi Ahmad[1], Haeruddin Saleh[2]

[1]Department of Management, Universitas Bosowa Makassar, Indonesia
sandyamad229@gmail.com
[2]Department of Management, Universitas Bosowa Makassar, Indonesia

Abstract— *The development of the Belajen Agropolitan area, characterized by agricultural activities, can improve the local economy. This research aims to study and analyze the development model of Agropolitan area as well as its influence on local economy. This research uses quantitative and qualitative approaches, data obtained through observation, surveys, documentation and questionnaires, case studies in this writing were chosen to answer the question of how to conduct or implement the model development of local economic-based Agropolitan areas. While quantitative analysis to measure the influence between variables using multiple regression with the Eviews program, Samples of 30 farmers in the Agropolitan area. The results of the study gave the idea that the use of Agropolitan area development model in the form of upstream-aquaculture model in Agropolitan area running is not optimal especially on the downstream model that the agroindustry process has not been running with the economic constrition and labor absorption. Downstream does not go well, this can be seen from activities on the area of Agrpolitan on the downstream activities only limited to conducting marketing activities products of cultivation, but there is no activity how to cultivate or process an agroindustry that is raw material into a final product ready for consumption. Until the future development of the model downstream in the area of Agropolitan Belajen can not be separated with upstream sub system and cultivation. The need for models that conform to the spatial structure of the area of Agropolitan Belajen is absolutely absolute, so that the productivity of horticultural crops can further provide a coherence to the regional economy.*

Keywords— *region development Model, productivity, and the local economy.*

I. INTRODUCTION

The gap between urban and rural areas resulted in poverty in the rural area, and uncontrolled urbanization process increasingly urged land productivity. Based on the fact, it has been affirmed in the national program that the main target of development is declining number of the poor and the creation of employment that is able to reduce open unemployment supported by Economic stability is maintained and the second target is reduced gaps between regions. One of the concept of rural development planning is development with the region model. With the development of this area is expected to be able to improve the community economy around the area. Formation of the region can benefit from economic agglomeration, namely increased productivity of business derived from spatial concentrations of economic activity (Krugman 1991, Newman and Page 2017)

The basic concept of Agropolitan development is an effort to create a balanced regional development, especially by increasing the linkage of rural city

development that is integrated in urban system functionally and spatially. Economic development of local community/rural is very important, with the effort to optimize the utilization of local resources through the development of community economy, social capital investment and human capital, investment in the field of infrastructure and resources Natural.

Social capital in the local community is more important in developing the regional economy, (J. Rudnick et al. 2019 & Beugelsdijk, S., & Van Schaik, T. 2005), meaning the role of community groups in agricultural activities is decisive in the development of Economic. The development of Agropolitan areas is carried out by the efforts to increase capacity of building in the community and government level in order to ensure the main benefits can be enjoyed by the community (Charron, N., Dijkstra, L., & Lapuente, V. 2014). In law No. 26 of 2007 about spatial arrangement, that Agropolitan area is an area consisting of one or more centers of activities in rural areas as agricultural production system and the management of

certain natural resources Demonstrated by the functional interconnectedness and hierarchy of system of residential units and agribusiness system. It is explained also that the spatial plan of rural areas is part of the district spatial plan that can be compiled as a space utilization instrument to optimize agricultural activities that can form Agropolitan areas. Enrekang District Regulation No. 14 Year 2008 (RPJPD year 2008-2028). Agropolitan areas are established and centered on the Agropolitan area of the district of Alla. Agropolitan Area Belajen District Enrekang, identified to have potential natural resources in the agricultural sector and has a superior commodity in horticultural crops, the condition is also supported by human resources potential Dominant work on agricultural sectors. Belajen Agropolitan area identified not optimal development in terms of achievement of production business based on economic business and regional based excellence. According to Budiningsih (2015), the development of Agropolitan area can not be done only by local government, but need to involvement of various stakeholders, especially existing farmers in Agropolitan area with farmers institutional strengthening pattern And revitalizing the farmer group as an important element in the development of Agropolitan areas. Meanwhile, according to Bahua, M.I., M. Arsyad, M.H. Jamil (2016),

To develop an Agropolitan area in Enrekang District, it is needed a model of upstream to downstream development so that the development process will not be hampered from production, post production, transportation, to processing. In order to implement this policy, a strategic linkage development strategy that includes regional economic governance, human resource quality/competence, infrastructure, public private partnership, and development facilities Local economic Area. It is necessary as a requirement to focus on the action for the development of mainstay, regional growth centers such as core competency based industrial area industry in the area of cluster shaped production center, new urban area. The area is expected to trigger the improvement of Community welfare and increase the regional genuine revenue through the development of superior products with market assurance.

II. RESEARCH METHODOLOGY

The selection of research locations is based on consideration; (a) that the district of Alla is the location of production centers and producers of horticultural commodities, (b) The main activity of the dominant population working in the agricultural sector or 29.44%, of the total population. This article is aimed at reviewing and analyzing the application model of the Belajen Agropolitan development area. Thus, the type of research chosen is the case study using a quantitative-qualitative approach. The reason for the protection of both approaches is; (i) The growing reality is not singular but plural, (ii) This paper is intended to describe the local economic potential related to the development of the Belajen Agropolitan region, and (iii) Belajen's agropolitan area is completely developed optimally through Agropolitan development model of upstream - downstream. Qualitative research will be able to capture a variety of qualitative information with a description, which is more valuable than merely statement of number or frequency in the form of numbers, evaluate the potential based on certain criteria, among others, Issues of farmers on Agropolitan, climate, social economic, demographic and agroecological diversity and know the role of government and non-government (Forch et al, 2013). Subsequently Bog and Biklen (1982), asserted that case studies were research that sought to describe a particular setting, object or event. Thus the case study in this article was chosen to answer the question of how implementation or implementing a model of Agropolitan-based local economic development. Quantitative analysis to measure the influence between variables using multiple regression with the Eviews program, with samples of 30 farmers present in Agropolitan areas.

III. RESULTS AND DISCUSSION

Potential of Agropolitan areas of Belajen

City of Belajen located in the administration area of Alla District, Kota Belajen consists of 3 (three) environments, namely the North Belajen area of 3.05 km², the western Belajen environment covering an area of 3.38 km² and the East Belajen environment area of 1.63 km². Geographically The location of Kota Belajen is located north of the city of Enrekang within 38 Km and located in the north of Makassar City is about 265 Km on the regional road to Tana Toraja Regency. Division of Kota Belajen aims as strategic director of regional development of the city.
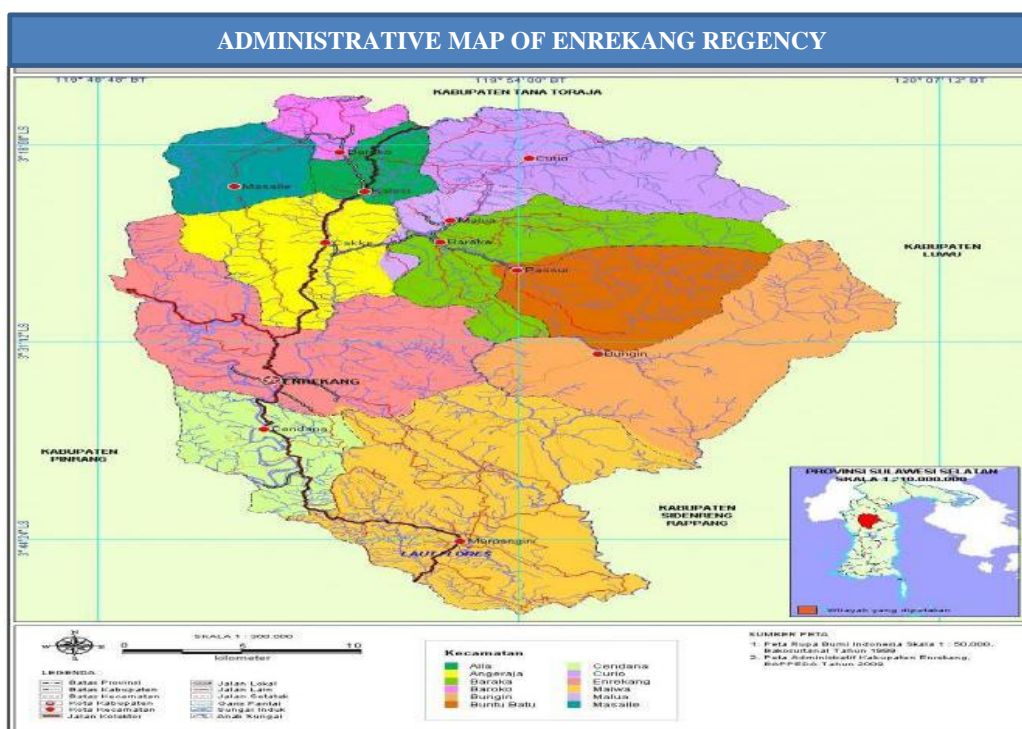
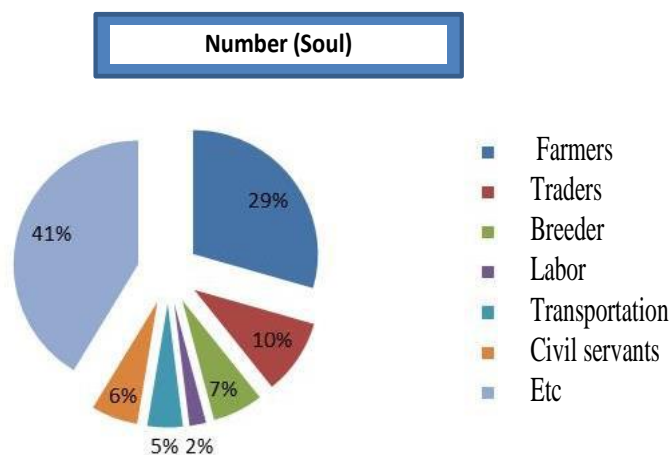**Figure 1. Location Map of Agropolitan Belajen District Enrekang**

Agropolitan Area Belajen District of Alla, which set has an area of approximately 457.60 Ha. From the area's total physically spatial and geographic areas, the Belajen Agropolitan region is supported by the presence of Alla Mata's eyes as a contributing factor to increased agricultural sector productivity and particularly in the efforts to increase Production of vegetable and fruit horticultural commodities. Thus, the Belajen Agropolitan area has direct influence on the existence of surrounding villages as the location of agricultural production centers. Potential of hinterland of Belajen Agropolitan area which is dominant with rural agrarian and community business activities oriented to the development of commodity horticultural vegetables and fruits.

Table 1. Extensive and horticultural crops in the Agropolitan area of Belajen

No.	Plant type	Harvest Area	Production (hundreds of Tons)
1	Rice	78	3.276
2	Corn	20	0.72
3	Cassava	11	1.87
4	Sweet potato	4	0.58
5	Cabbage	91	209.5
6	Tomato	38	6.49
7	Onion	81	90.65
8	Scallion	31	32.3
9	Red Chili	12	6.12
10	Beans	9	5.7
11	Rawit Cabet	30	19.16
12	Siamese Pumpkin	10	20.5
13	Peanut	14	0.182

Source: Office of the Food plant Department of Enrekang District, 2019

Picture. 2. Development of Community Business field in Agropolitan area

From picture 2 above, some interpretation can be submitted, ie; (1), potential population of Agropolitan area of Belajen dominant as farmer or as many as 1,389 people (29%). That is, that the agriculture sector is the dominant activity of leading sectors of economic growth in the district Alla. (2). Horticultural commodities and fruits are the main commodities developed by the population. That is, that the orientation of the main activities of the population associations positive towards the development of agropolitan areas and local economic potential. (3). The dominant human resource potential engaged in the agriculture sector, become the basic capital in the development of Agropolitan-based areas of farmer empowerment. (4). Trading activities at the center of the Agropolitan area is sufficiently developed, characterized by the number of people engaged in trading efforts of 465 people or 10%. That is, that the mechanism of marketing of agricultural produce is not experiencing obstacles in the process of developing the Belajen Agropolitan area. Thereby, it can be concluded that the development of the Belajen Agropolitan area will require the integration of farmer activity patterns in terms of increasing agricultural production, processing agricultural products through rural agribusiness and marketing systems sustainable production through the optimization of economic potentials and transport transportation services.

Model of Agropolitan area development in Belajen

Agropolitan areas can be developed and sustainable when the development model is well executed consisting of:

a. Upstream efforts on Agropolitan areas

Including the procurement of agricultural production facilities, among others, consisting of seeds, seedlings, fertilizers, medicine pests and diseases, credit institutions, fuels, tools, machinery, and equipment agricultural production.

Perpetrators of procurement and distribution of production facilities are individuals, private companies, governments, cooperatives. How important this subsystem remembers the need to be the alignment of various elements to realize the success of agribusiness. Industries that provide agricultural production facilities are also referred to as upstream agro-industry.

b. Farming

Farming produces agricultural products in the form of foodstuffs, plantation crops, fruits, flowers and ornamental plants. Perpetrators of the activities in this subsystem are producers consisting of farmers, etc.

c. Downstream ventures

In this subsystem there is a series of activities ranging from the collection of agricultural products, processing, storage and distribution. Some of the At this stage of the division of work in agriculture activities become increasingly clear, namely: farming activities as agricultural activities in a narrow sense, the production of farm supplies as an upstream industry and agricultural commodity processing activities AS Downstream industry. Produced from the farmer's business are distributed directly to consumers inside or outside the country. Some others undergo first processing process and then distributed to consumers. Perpetrators of the activities in this subsystem are collectors of products, processors, merchants, distributors to consumers, Canning and others. Industries that process farming products are called downstream Agro-industry. The role is very important when placed in the countryside because it can be the motor of driving economy wheels in the countryside, by absorbing/creating employment so as to increase the income and welfare of rural communities.

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agricultural commodity processing activities as downstream industry. The research results in Agropolitan area by looking at the development model of Agropolitan area, has been implemented Upstream , cultivation and Downstream, statistic by using program of regression analysis of Eviews method obtained results:

Table 2. Multiple regression analysis results with Eviews

Dependent Variable: Y
Method: Least Squares
Date: 04/19/19   Time: 06:41
Sample: 1 30
Included observations : 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.98566	7.295704	1.505771	0.1442
X1	0.556256	0.280044	1.986313	0.0576
X2	0.711582	0.297121	2.394926	0.0241
X3	0.102650	0.298582	0.343792	0.7338

R-squared	0.528151	Mean dependent var	49.53333
Adjusted R-squared	0.473707	S.D. dependent var	5.462937
S.E. of regression	3.963144	Akaike info criterion	5.715518
Sum squared resid	408.3692	Dependent Variable: Y	
Log likelihood	-81.73277	Method: Least Squares	
F-statistic	9.700809	Date: 04/19/19 Time: 06:41	
Prob(F-statistic)	0.000180	Sample: 1 30	

Source: Processed data, 2019

The statistic of the implementation of the development model of Belajen Agropolitan area in Enrekang district, can be explained that partially indicated by T-Statistic X_1 (the business of Upstream) with a value of 1.986 greater than the T-table 1.697, meaning variable X_1 partially influential to the Y (development of Agropolitan areas), as a system of economic activity, Agropolitan activities divided into three sub systems are intertwined with each other. Sub system is upstream sub system, downstream sub system and cultivation sub system (processing). The development of Belajen Agropolitan area that supports the increase of production of superior commodities, such as the provision of agricultural sector production facilities, Provision of infrastructure and supply of refrigeration machines and other means, has been provided by the Government so as to support the development of agropolitan areas in increasing productivity in the region. According to G. Rasul and Sharma (2014), the role of government, effective administration and major investment is the main thing in increasing economic growth, meaning that the Agropolitan region can develop when there is a government role and development of various Infrastructure on agricultural sectors. Meanwhile, according to B. Mueller, C. Mueller (2016), in Brazil the policy in agriculture works best with the network with various related markets, good institutional existence, and without intervention so that free farmers thrive, means the agricultural sector will advance when there is an infrastructure required by farmers.

For variable X_2 (farming cultivation) the value of T-Statistic 2.394 is greater than the T-table 1.697, has a significant influence means farming business in the area of Agropolitan goes well.   The cultivation development Model of the Belajen Agropolitan area plays an important role in the development of Agropolitan areas. Based on the diversity of agricultural products Enrekang, it takes the concept of developing agropolitan areas that are integrated horizontally. The biggest benefit of integrated and thorough agricultural production is not only through the processing technique of one branch of the business, which is derived on the branches of other farmers. Azas conformity and complement each other in the application of various excellent techniques in the processing of agricultural enterprises that produce positive and synergistic interaction is a major foundation in the development of integrated agricultural enterprises.
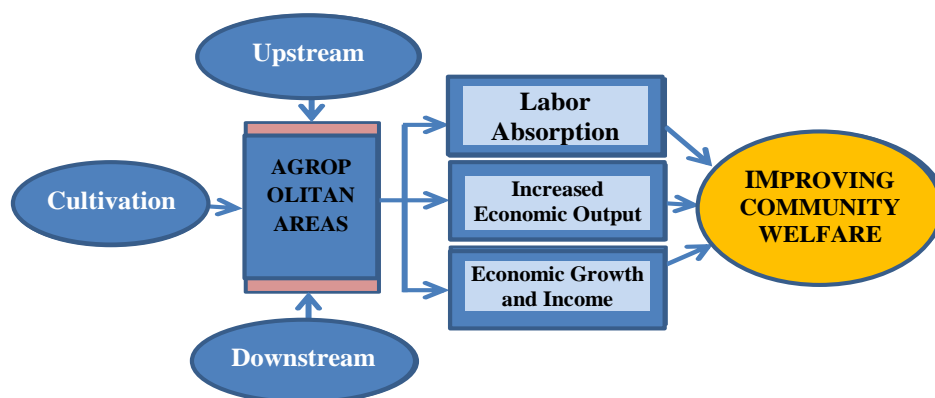
Diversification of agriculture sector efforts in the framework of the integrated agricultural sector business model should certainly be directed towards the sustainability of agricultural commodities. Therefore, attention should be centered on using the local resources efficiently. The development of Agropolitan areas is also aimed at the sustainability of the ecosystem in the ecoregion. Intensification of agricultural efforts with the productivity, stability and sustainability of income and community participation. The success of an integrated

agricultural program is determined by the ability and accuracy in determining the commodity, cultivation and development techniques in accordance with the specific local conditions of each ecoregion, so that the Agropolitan models developed in addition Can meet the high productivity criteria also meet the socio-cultural criteria.

As for the activities downstream (X_3) the value of 0.343 is smaller than the T-table value of 1.697 thus insignificant, meaning that the downstream does not go well, this can be seen from the activities of Agrpolitan areas on activities downstream is limited to doing marketing activities of cultivation products, but there is no activity how to cultivate or process the agroindustry that is the raw material into the final product ready to be consumed. Until the future development of the model downstream in the area of Agropolitan Belajen can not be separated with upstream sub system and cultivation. The

need for a model that corresponds to the structure of the spatial area of Agropolitan absolute Belajen.

Based on the theory and concept of Agropolitan area development, the Belajen Agropolitan area needs to do the development that is vertical. This concept means recommending that Agropolitan activities in Belajen be the main drivers. The Model is very suitable because it is able to accommodate economic activities and in accordance with the planned spatial structure of the Belajen Agropolitan area. Economic activities based on trading of agricultural sector commodity in the form of backward and forward team that are associated with upstream - cultivation-downstream system. According to P. Dorosh, J. Thurlow (2018), the level of elasticity is higher for agricultural products than non-agricultural as a whole, meaning that agricultural products in terms of prices vary according to the season and consumer demand.

Picture. 3. Agropolitan Area Development Model

In the model of development of Agropolitan area of Belajen give social economic benefits, namely if the area of Agropolitan develop then the higher labor absorption, increase economic output as well as local economic growth and Community income, thereby giving effect to improving people's welfare.

Local Economic Development

Agricultural sectors play an important role in the economic development of an area, agricultural sector development is determined by the use of technology means how to utilize the results of research in developing agricultural sectors, according to Keith Fuglie (2016), technology has considerable importance and is increasingly important for developing countries in developing agricultural sectors. This indicates that an area with potential agriculture needs to utilize technology and

develop agricultural areas professionally based on the excellence that has, the local economy is growing.

Local economic development based on agriculture is an orientation process, which puts the formation of new institutions, development of the alternative industry, increasing the capacity of actors to produce better products, identification New markets, the transfer of science, and stimulate the rise of new ventures and entrepreneurial spirit. According to Edmund Amann, Armando Barrientos, (2016), in overcoming challenges in economic development, can harness the strengths and abilities of the community by managing resources and natural resource-based products, So that economic growth will be sustainable, meaning that the management of agricultural sectors, especially in agropolitan areas, can provide a coherence to regional economic growth.

Expected in the development of local economies, agricultural activities in its development will be oriented to

the market (consumers) in case of the spread of resources and the production factor is evenly and the transportation is relatively cheap. This market orientation will show that each location can produce a superior agricultural commodity. According to Perez, C., Marin, A., & Navás-Aleman, L. (2014), the Economic development model can be sustainable when the products produced have comparative advantages in agriculture, increase productivity and increase the value added from Products produced, it is indicated that to increase the development of an area in line with the model of Agropolitan, namely downstream means that the resulting product must have economic added value.

With the proliferation of upstream, cultivation and downstream models of Agropolitan companions, agricultural activities will be more developed due to the convenience of consumers who come from inside or outside the location to come to Marketing location of the agricultural commodity, the development of Agropolitan areas can give constriction to the economic structure of the region. The economic structure of Enrekang District for 5 years has been reported to be less shifting, where the role of agriculture sector is still dominant with average still above 43.16%. The high contribution of the agricultural sector is supported by subsectors of the plant, the average contribution of food above 36% per year. Next table 3, the economic structure of Enrekang District:

Table 3. Economic structure of Enrekang District 2013-2017

No	Business field	PDRB Development (%)				
		2013	2014	2015	2016	2017
1	Agriculture	41,96	42,76	42,65	42,45	43,16
2	Mining & Excavations	2,96	3,08	3,58	3,73	3,69
3	Industrial processing	9,83	12,35	12,65	12,34	12,15
4	Electricity, Gas, & drinking water	0,59	0,52	0,46	0,45	0,44
6	Building	4,69	4,48	5,78	5,80	5,31
7	Transportation & Communications	2,42	2,41	2,18	2,27	2,29
8	Bank & Financial Institutions	3,45	3,83	3,97	4,05	3,90
9	Services	20,35	24,60	29,89	28,32	28,66
PDRB		100	100	100	100	100

Source: Agency of the Statitic Center, 2019

The existence of Belajen Agropolitan area in Enrekang District, contributing to the development of local economic, agricultural production is the most coherence to economic growth, in the area of Agropoitan is expected to model the development of Agropolitan area is upstream-aquaculture downstream, so productivity and value added is greater.

IV.   CONCLUSIONS

The areas of Agropolitan Belajen have the potential of natural resources and human resources that are engaged in the agricultural sector, in the implementation of the development of Agropolitan area has been running which is the process of upstream of the provision of infrastructure Agricultural that regenerate from the procurement of seedlings, fertilizer, medicines,

warehousing, the provision of irrigation and the availability of the economic and cooperative banking. Similarly, in cultivation, farmers in the Agropolitan region have done the cultivation of horticultural farming as the flagship product of the region. For the model of downstream has been running in the area of Agropolitan but not optimal, meaning downstream activities are only limited to the marketing of agricultural products, have not conducted agro-industry activities that cultivate horticultural results into products that can be International market, such as products that are packaged in the form of cans that are managed by the industry.

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VI. DISCLOSURE STATEMENT

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ORCID

Haeruddin Saleh http://orcid.org/0000-0003-3060-5185

REFERENCES

[1] Bahua, M.I., M. Arsyad, M.H. Jamil (2016). *Farmers Community Empowerment through Institutional Strengthening of Rural Food Barn.* International Journal of Agriculture System, 4(2):161-167. DOI: http://dx.doi.org/10.20956/ijas.v4i2.689

[2] Bernardo Mueller, & Charles Mueller (2016). *The political economy of the Brazilian model of agricultural development: Institutions versus sectoral policy*. The Quarterly Review of Economics and Finance 62 (2016) 12–20. https://doi.org/10.1016/j.qref.2016.07.012

[3] Beugelsdijk, S., & van Schaik, T. (2005). S*ocial capital and growth in European regions: An empirical test*. European Journal of Political Economy, 21, 301–324 https://doi.org/10.1016/j.ejpoleco.2004.07.004

[4] Bog & Biklen, 1982. *Qualitative Research for Education*. United States of America: McGraw-Hill,Inc.

[5] Budiningsih, W. (2015). *Pemberdayaan Petani Melalui Penguatan Modal Kelembagaan Petani Di Kawasan Agropolitan Kecamatan Belik Kabupaten Pemalang (Farmer Empowerment Through Capital Reinforcement Of Farmers Institution At Agropolitan Area Of Belik Sub District, Pemalang Rege).*Agriekonomika*, 4*(1), 50-58.http://journal.trunojoyo.ac.id/agriekonomika/article/view/673

[6] Charron, N., Dijkstra, L., & Lapuente, V. (2014). *Regional governance matters: Quality of government within European Union member states*. Regional Studies, 48(1), 68–90. http://dx.doi.org/10.1080/00343404.2013.770141

[7] Edmund Amann, Armando Barrientos, (2016). *Introduction – Is there a Brazilian development 'model*. The Quarterly Review of Economics and Finance 62 (2016) 7–11. DOI: 10.1016/j.qref.2016.07.013

[8] Förch, W., Sijmons, K., Mutie, I., Kiplimo, J., Cramer, L., Kristjanson, P., Radeny, M. (2013). *CCAFS Sites' Portfolio in the CCAFS Regions*: East Africa, West Africa and South Asia. Version 3. http://dx.*doi*.org/10.1080/14735903.2017.1336411.

[9] G. Rasul and E. Sharma, 2014. *Understanding the poor economic performance of Bihar and Uttar Pradesh, India*: a macroperspective Regional Studies, Regional Science,

Vol. 1, No. 1, 221–239, doi.org/10.1080/21681376.2014.943804

[10] Harun, Uton Ruston (2004) *Perencanaan Pengembangan Kawasan Agropolitan Dalam Sistem Perkotaan Regional Di Indonesia*. Bogor. Crespent Press.

[11] Jessica Rudnick, Meredith Niles, Mark Lubell & Laura Cramer (2019) . *A comparative analysis of gover-nance and leadership in agricu-ltural development policy networks*. World Development 117 (2019) 112–126. https://doi.org/10.1016/j.worlddev.2018.12.015

[12] Keith Fuglie, (2016). *The growing role of the private sector in agricultural research and development world-wide*. Global Food Security. Volume 10, September 2016, Pages 29-38. https://doi.org/10.1016/j.gfs.2016.07.

[13] Krugman, Paul. 1991. *Geography and Trade*. Cambridge, MA: MIT Press

[14] Lightfoot, C., Noble, R. (2001). *Tracking the ecological soundness of farming systems: instruments and indicators*. Journal of Sustainable Agriculture 19(1): 9-29 https://doi.org/10.1300/J064v19n01_03

[15] Mahi K.A., (2015)*, Agropolitan : Teori dan Aplikasi*, Graha Ilmu, Yogyakarta.

[16] Newman, Carol, and John Page. 2017. *Industrial Clusters: The Case for Special Economic Zones*. WIDER Working Paper 2017/15. https://www.wider.unu.edu/sites/default/files/wp2017-15.pdf

[17] P. Dorosh, J. Thurlow (2018). B*eyond Agriculture Versus Non-Agriculture: Decomposing Sectoral Growth–Poverty Linkages in Five African Countries*. World Development 109 (2018) 440–451. https://doi.org/10.1016/j.worlddev.2016.08.014

[18] Pawana Nur Indah, Zainal Abidin Sam, Effi Damaijati, (2017). *Identifying Potential Estate Commodity for Agropolitan*. International Journal of Agriculture System (IJAS) Development in Ponorogo, *Accepted: Jun 9, 2017* Volume 5 Issue 1 June 2017 (60-68). DOI: http://dx.doi.org/10.20956/ijas.v5i1.1171

[19] Perez, C., Marin, A., & Navás-Aleman, L. (2014). *The possible dynamic role of natural resource based networks in Latin American development strategies*. In G.Dutrenit, & J. Sutz (Eds.), National innovation systems, social inclusion and development. Cheltenham: Edward Elgar. https://www.elgaronline.com/view/9781782548676.00018.xml

[20] Soenarno. (2003). *Pengembangan Kawasan Agropolitan Dalam Rangka Pengembangan Wilayah*. Jakarta