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Basic mapping data of Jambi Province potency for a continuous livestock development strategy

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Abstract. Local commodity in Jambi Province consists of 20 kinds of product for plantation area, which in its entirety have the power of the biggest labour variation amount that is in plantation area (85%) followed by farm area (66,67%) and animal husbandry area (63,64%). Technique to identify regional input contribution. As for the quantity of input resources variation becomes the measurement of : (1) the unit size of commodity area, (2) effort variation and effort specification, (3) quantity of effort contribution, (4) alternative potency and prior potency of area effort that becomes a measurement. The result above can be used as precisely basic identification program in specifying program policy that is integrated to strengthen the commodity power. Jambi Province has the ability to apply integration program between farming-plantation, animal husbandry (P3) to support reinforcement of self sufficiency in food and effort. The action of maintaining this final potency of commodity can be taken as a recommendation to keep the stability of raw and final material availability as commodity of area requirement accomplished also can be developed continuously in Jambi Province To answer the second problem in this research, it is stated that the lowest standard pattern that can be done in developing local resources program to maintain food is by P3 pattern (Plantation, Animal Husbandry and Agriculture). Basic mapping data horizontally, the plantation mapping possesses 3 area categories of commodity : green zone A , orange zone B and C yellow zone. Sub-provinces with green zone commodity area 1,2,3,4,5,6,7,8,9. Zone B in sub-province (none), 5,6,7,8,9,11 and C Yellow zone sub-province is 10. Horizontally farming mapping owns 3 (three) area categories of commodity A green zone, B orange zone (none) and C yellow zone. Sub-province with green zone commodity are 1,2,3,4,5,6,7,8,9, zone B in sub-province in none and C yellow zone in sub province are 10,11. While horizontally animal husbandry mapping owns 4 area categories commodity. For Non Poultry livestock, B (non poultry livestock). Sub province non poultry livestock 1,2,3,4,5,6, Zone B (7,8,9,10,11), zone poultry livestock (1,2,3,4,5,6,7,8), B (9,10,11). while Vertically animal husbandry mapping owns 4 zone, they are active/high potency (A1,A2) non poultry livestock and poultry livestock conservation zone B and C. According to Nora (2016) identification of rescue conservation measures for livestock stock can be seen from: 1) whether or not there is integration of potential natural resources and animal husbandry activities (in terms of waste utilization), 2) an increase in deductions which causes changes in population to exceed the existing population, 3) absence of linearity between stock and cutting numbers, 4) mapping of conservation positions starting from level 2, 3, and 4.

Keywords – mapping data, livestock development, Jambi Province.

1. Introduction

The position of agricultural commodities is a commodity that has a promising regional potential in terms of the availability of raw materials for waste, but when linked to the role of leading commodities

(plantations) it turns out that agriculture still cannot support integration efforts, so that the relationship between availability and effort that can be developed requires utilization strategies. The right SDL (Local Resources) and the empowerment of the role of the intervention of the side processing technology of the plantation business as a supplier of raw materials for animal feed business need to be improved. Agricultural and plantation by-products have their own strength for livestock development businesses. Agricultural business needs to be intensified and livestock businesses can be used as other businesses that need to be developed as sustainable superior potential with integration patterns. Raw materials in the form of raw materials in fresh form and waste can be used as indicators of the potential of commodity resources. Leading commodity and business relationships as the basis for evaluating Local Resources (SDL).

1.1. The purpose of the research

The purpose of this research is : the act of maintaining this potential commodity can be used as a recommendation to maintain the balance of raw material availability, results as a commodity that meets the needs of the region, can be developed as a WASH-WASTE AND CLS (Croop Livestock System) or wild plats PROGRAM in a sustainable manner to achieve food and raw material self-sufficiency, to answer the second problem in this study, it was produced that the lowest standard pattern in the location that this program could do in developing SDL (or :local resources-indonesia) potential for food security, and P3 (Pattern Planning Program) or (Plantation, Animal Husbandry and Agriculture) or 3 in 1 field of livestock development and livestock development

2. Materials and methods

2.1. The material of the research

The data is continued by taking a 100% sample from all regencies in Jambi Province to get the strongest potential position and possible variation of additional efforts from the business. Commodities contained in a diverse area produce a variety of potential possibilities for further development and empowerment optimally to strengthen the potential that already exists in the future. The data obtained were analyzed based on the assessment data matrix measured in percentage, ranking, scoring and comparison, and the analysis used was descriptive analysis, LQ (Location Quotation) and continued with QSPM analysis to determine priority policy.

2.2. Methods

The method used is a survey method, where the data inputted is primary data and secondary data from previous research which is a continuation of the identification of the sample location mapping in one of the districts in Jambi Province. The selected location is the basic location of alternative policy making and priority policy for the development of beef cattle in Jambi Province, while the commodity data is the result of secondary data analysis of Jambi Province in the fields of agriculture, plantations and livestock. The output of the previous research was in the form of the position of the conservation area of livestock, especially in densely populated areas of livestock and the lack of utilization of natural resources which led to changes in the situation of livestock stock maps.

2.3. Basic mapping data processing [4]

The steps that must be taken in the basic mapping of data are as follows: position on the potential base map box, knowing the location boundaries and regional criteria based on the zone (A.B.C), give green marks for active / potential, yellow (empowerment) and orange (conservation), and than after knowing the zones, continue by looking at the potential ability of the overall potential that exists in a particular area (can be broad or small).

2.4. Processing organic fertilizer [4]

The prosedure of making basic mapping data that was : 1 The first step is to do commodity grouping in each district by creeping to find out Advanced Potentia Mapping with Livestock for

covering determine Variative Commodities All Regencies, Overall Variable Amount, Potential Variation Percentage (As for this step is intended to determine the rank, grade, potential and potential value, 2) The results of the main potentials of each dominant sector look for their potential value in basic mapping data, with the provisions of existing commodities being given overall green color, then after the overall potential in potential boxes for regions with moderate potential criteria and slightly given the flowering line between the largest and the smallest so that there are differences in zones, for the most zones are colored green and medium yellow and slightly orange, and 3) The difference in vertical lines will be known as their potential zones while in the horizontal line it will be known the criteria for the regions that have the largest, medium to the least commodity.

3. Result and discussion
3.1 Basic mapping data the plantation potency of Jambi Province
3.1.1. Basic Jambi Province plantation mapping data
    Based on the results of research on Basic Mapping Data of Jambi Province, the results were shown in Table 1.

Table 1. Mapping variation of plantation potential in Jambi Province.

Commodity Judging Criteria	Number of Similar Province Commodity Scores	Number of Commodities	Indonesia Code	Commodity Name	Percentage of Commodities	**Ranking**	Advanced Potential Mapping with Livestock
Score A	30	3	kd,Kr,pi	Kelapa dalam, Robusta Coffee, Pinang	3,88372	1	Coffee
Score B	18	2	k,cl	Rubber, Chocolate	2,32558	2	Chocolate
Score B	6	1	ki	Candlenut	6,97674	3	
Score B	10	2	l,a	Pepper, Aren	11,62791	4	
Score B	8	2	kh,kkm	Hybrid coconut, cinnamon bark	9,30233	5	
Score B	6	2	tu,n	Tobacco, Patchouli	6,97674	6	
Score B	6	3	ka, kp,tb	Arabica coffee, kapok, sugar cane	6,97674	7	
Score B	2	2	ck,v	Cloves, Vanilla	2,32558	8	
Score C	0	3	ks,jp,th	Palm oil, Jatropha curcas, Tea	0	9	Palm oil
Variative Commodities All Regencies	86	20			Total: 20,93022		
Overall Variable Amount		220					
Potential Variation Percentage	39,09						

Source: Primary data analysis (2017)

    The strengths of the highest potential in the plantation sector that can be included in the CLS Program are 3 types of commodities (15%) in the coffee and chocolate specifications which are sufficiently wasteful and not widely used and used as a source of CLS Program activities. Variations in provincial plantation commodities were found as many as 86 types (39.09%) of 220 potential if considered to cover all districts. Although the percentage based on coffee and chocolate scores is not the largest position produced, but when viewed from the source of conventional SDL utilization, this type of waste is quite abundant and can be used as the main potential supporting business for the CLS

program. The potential that can be developed for the integration of the plantation and livestock sector is the use of coffee waste and chocolate waste as an alternative feed source for livestock, which of course must go through the process of making feed processing technology for livestock from the waste.

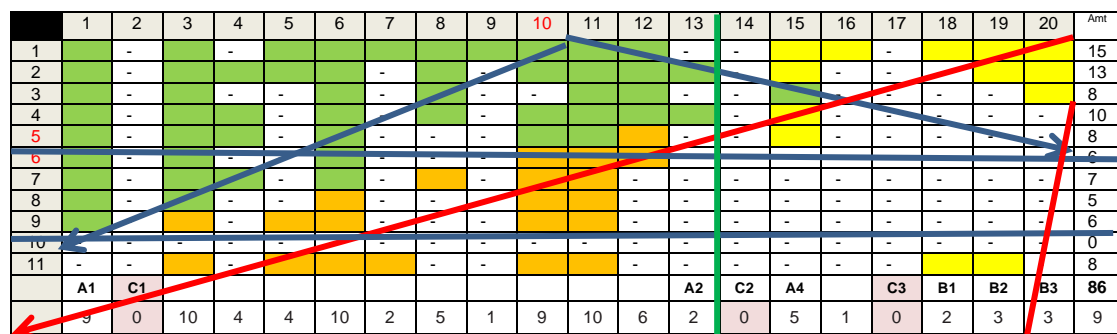*3.1.2. Mapping of plantation potential*

Figure 1. Mapping of plantation potential.

In Figure 1, the plantation mapping horizontally / transversely has 3 (three) areas of commodity categories for green zone A (A1, A2), zone orange B (A4, B1, B2, B3) and yellow zone C (C1, C2, C3). Regency with green zone commodity is 1, 2, 3, 4, 5, 6, 7, 8, 9. zone B in regency 5, 6, 7, 8, 9, 11 and yellow zone C in regency 10. While vertically mapping plantation has 2 zones namely Active / High Potential (A1, A2) and Passive / Medium Potential zone (A4, B1, B2, B3), and conservation zones (C1, C2, C3).

3.2 Basic mapping data the agriculture potency of Jambi Province
3.2.1. Basic Jambi Province plantation mapping data

Based on the results of research on Basic Mapping Data of Jambi Province, the results were shown in Table 2.

Variative diversity of agricultural fields is dominated by corn and rice plants. Thus integration efforts can be optimally carried out for the development of animal feed in the form of integration of agricultural crops and livestock waste in supporting alternative animal feed self-sufficiency in Jambi Province with strength variation 66.66% greater than the byproducts of waste from plantations such as rubber and coffee. Conversion of productive agricultural land and marginal land for non-agricultural activities will automatically have an impact on the reduced availability of feed base for ruminant livestock production. If the condition continues until there are no more areas left for overgrown fodder, the productivity of the national assets in the form of ruminants will also automatically decrease. To prevent this from happening, the maintenance of existing animal feed forages must certainly be a priority so that the future need for feed for the ruminant industry can be believed to be fulfilled sustainably. The intended industry will still be needed by the new generations of the coming Indonesian nation.

The amount of contribution of agricultural waste dry matter product Y (135,764,61 ton / BK / year) can be classified as the highest for the comparison of superior commodity waste supporting self-sufficiency in animal feed from waste. Mapping of the potential of Jambi Province Agriculture can be seen in Figure 2.

Based on the results of research on Basic Mapping Data of Jambi Province, the results were shown in Table 2.

Table 2. Mapping variation of agriculture potential in Jambi Province.

| Kabupaten	P	TON	Ranking	Grade			Information	Potential Value
				A	B	C		
Kerinci	85,71	809,29	1		B		Potency	Normal
Merangin	100,00	524,76	3	A			Potency	Normal
Sarolangun	100,00	418,86	10	A			Potency	Normal
Batang Hari	85,71	443,95	6		B		Potency	Normal
Muaro Jambi	100,00	443,98	7	A			Potency	Normal
Tanjung Jabung Timur	85,71	409,29	11		B		Potency	Normal
Tanjung Jabung Barat	100,00	475,80	5	A			Potency	Normal
Tebo	100,00	440,92	8	A			Potency	Normal
Bungo	100,00	476,18	4	A			Potency	Normal
Kota Jambi		420,61	9				Normal Conservation	Normal
Kota Sungai Penuh		589,45	2				Normal Conservation	Normal
Amount	999,99	5.444,28		6	3	2		
Average Harvest	90,91	494,93						
District Conservation Map	0,01						Conservation Low	
Percentage				54,55	2	18,18		

Source: Primary data analysis (2017)

Districts with high harvest rates will produce high side waste and can be used as a source of alternative feed ingredients, especially cassava in the districts 2,3,4,5,6, 8,9,10 with the ability to harvest (ton) 90,91% if it is associated with the inter-population of livestock and the contribution of waste (135,775.61) then the potential map is n is the conventional raw material (food) and waste (By Product) for alternative feed. Maintaining the planted area (Ha) and harvest area (tons) of plantation crops resources will maintain the availability of alternative feed ingredients especially for grade A areas (the plantation harvest barns and waste barns indicated from the area's information have more plantation potential and lead to conservation value low (0,01).

[4] stated that, some of the problems in the development of beef cattle business in Indonesia are: (1) livestock productivity is still low, (2) the availability of local superior seeds is limited, (3) human resources are less productive and low knowledge, (4) the availability of feed is not continuous, especially in the dry season, (5) the livestock business system is not optimal, and (6) yield marketing is not yet efficient. Tawaf and Kuswaryan (2006) stated that, the low productivity of livestock and the limited availability of local superior seeds were caused by: (1) nursery sources were still dominated by folk farmers who spread widely with low ownership (1-4), (2) the existing nursery institutions (nursery business groups) have not developed towards professional business, (3) the weak reach of nursery UPT services due to the wide distribution of livestock, and (4) the high cutting of productive female livestock as a result of high demand for beef.

The results of agricultural mapping show that the division of zones is based on the same criteria with the results on the mapping of the farm, namely the green zone, orange zone and yellow zone. The yellow zone is a conservation zone, for areas that are not shaded are areas that have no supporting potential for this type of commodity variation.

3.2.2. Mapping of agriculture potential
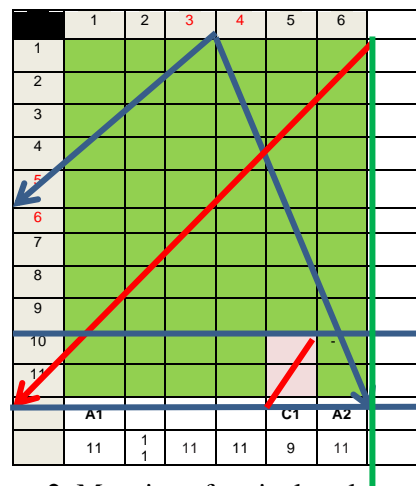
Figure 2. Mapping of agricultural potential.

In Figure 2, the horizontal / transverse mapping of agriculture has 2 (three) areas of commodity categories for green zone A (A1), zone orange B (B1) and yellow zone C (0). Regency with green zone commodity is 1,2,3,4,5,6,7,8,9. zone B in district 0 and yellow zone C in district 10, 11. While vertically mapping plantations have 1 zone (Figure 2), namely Active / High Potential (A1, A2) and Passive / Medium Potential zone (0), and conservation zone (C1). Basic mapping of agricultural potential that can be developed as a varied potential in the empowerment of local natural resources is the effort to integrate agricultural livestock as an alternative feed procurement business, especially those that are areas in the active zone. Thus the district can be developed as an agricultural-livestock integration zone.

Corn plants can be used as alternative feed ingredients for livestock through a fermentation process to increase the value of its protein content so that the value of crude fiber raw materials that previously had a high content. In addition, corn plants have not been widely used so that efforts are needed to empower local resources in the form of corn waste to be used as a source of animal feed which is widely available from agricultural activities, besides that this agricultural potential is also actually strong from commodity commodities (66, 66%) contributors to the overall source of animal feed ingredients such as rice in the form of rice bran waste, soybean in the form of soybean meal, and cassava in the form of left over waste (Indonesian : *onggok)* as the implementation of crop and livestock integration (Crop Livestock System), namely through optimizing the utilization of crop farming waste for feed and utilization of livestock manure for fertilizer plants.

The potential of a region's resources has different characteristics. These differences exist that are very visible and invisible when analyzed, as a result there is a division of regions that differ in size based on the availability of resources. To simplify the identification of an area from a simple observation angle, it is often constrained because of the parameters that are not owned to support an analysis of the things to be examined. Various formulas and techniques are used with the aim to answer about a problem that will be examined. The strengths and weaknesses encountered in an area lead to a new paradigm of technical fast observing the potential whether it leads to the development or improvement of conditions (Nora, 2016).

Mapping of the varied potential of agriculture is seen from various sources of waste, namely the harvested area of rice, corn, cassava, sweet potato, soybeans and peanuts. The biggest contribution of waste is corn plants can be seen in Table 3.

Table 3. Mapping of variative potentials of agriculture in Jambi Province.

No	District	Number Y (tons of BK / yr) 1 Y	Regency Rank 2 R	Main Commodity 3 C	Supply Map of Commodity / Biggest Commodity Rice	corn	Soy	Cassava	Amount Total Commodity
	Y (Tons / BK / Yr)	135.764,61			3	6	1	1	71
	Percentage				27,27	54,55	9,09	9,09	
	Province Commodity Ranking				2	1	3	4	
	Commodity Category :								
	1. Most Commodities	Corn				54,55			
	2. Medium Commodity	Rice			27,27				
	3. Little Commodity	Soy, Cassava					18,18		
	Number of Commodity Diversities	4							
	Percentage of Commodity Diversity	66,66%							

Source: Results of Research Analysis (2017)

3.3 Basic mapping data the animal husbandry potency of Jambi Province

3.3.1. Basic Jambi Province plantation mapping data

In Figure 3, the horizontal / transverse mapping of farms has 4 (four) areas of commodity categories in green zone A Non Poultry Cattle (A1, A2, A3, A4), zone orange B (B1, B2, B3), and orange zone C (C1, C2, C3).

Regency with commodity of green zone of non-poultry livestock namely 1,2,3,4,5,6, zone B of non-poultry livestock (B1, B2) in regency namely 7,8,9,10,11 and green zone of poultry in district 1,2,3,4,5,6,7,8 and zone B of poultry in district 9.10.11. While vertically mapping farms have 4 zones, namely Active / High Potential (A1, A2) non-poultry livestock and poultry and the Passive / Medium Potential zone (B1) of non-poultry livestock and poultry and conservation zones (B1, B2) and for livestock non poultry and poultry (C1, C2, C3).

Based on the results of research on Basic Mapping Data of Jambi Province, the results were shown in Table 4.

Most districts have the potential for livestock farming, especially 1,5,6,8,9. With illustrations as follows:

| 1	2	3	4	5	6	7	8	9	10	11
11	2	9	3	11	11	4	11	11	10	7

Table 4. Mapping variation of the animal husbandry potential in Jambi Province.

No	Analysis Results	Non Poultry Farming							Poultry Farming				Total
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**KV**
1	Amount	11	2	9	3	11	11	4	11	11	10	7	90
2	Province Commodity Ranking	1	6	3	5	1	1	5	1	1	2	4	
3	Commodity Category												
4	1. Most Commodity	11				11	11		11	11	10		**65**
5	3. Medium Commodity			9								7	**16**
6	3. Little Commodity		2		3			4					**9**
7	**Number of Commodity Diversities**												**90**
	Percentage of Commodity Diversity	74,38											

Source: Analysis Results (2017).

3.3.2. Mapping of animal husbandry potential
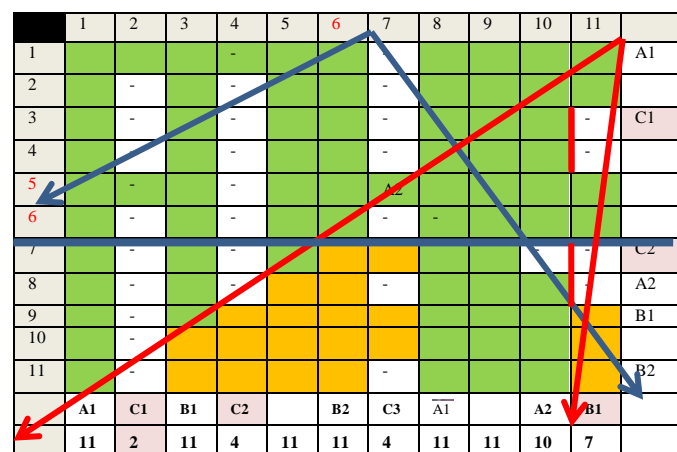
Figure 3. Mapping of animal husbandry potential.

The most commodity in the province is in the field of livestock, the highest variative commodity in the district of Kerinci. The diversity of provincial commodities is quite good and has the potential if CLS technology is developed to increase the variative diversity of commodities through the creation of alternative technologies in addition to the main waste.

Fields that can be used as a basic integration effort in Jambi Province have the potential to develop agricultural-livestock integration efforts seen from the production of animal feed commodities in the form of corn waste production output (54.55%), rice (27.27%), soybeans and cassava respectively - (9.09%). Districts that have waste output contribution from agricultural business are in Kerinci Regency with rice harvest area of 26,142 Ha or 25.58% and corn harvest area of 2,017 Ha or 23.77% of the total land area in Jambi Province.

The diversity of the percentage of livestock potential is 74.35%. The results of the study get basic mapping data information as a whole that Jambi Province can be used as a CLS program with the following data bases, namely: 1) basic data mapping obtained from the diversity of commodity potential, 2) varied combinations of commodity potential and 3) varied potential wastes for Crop programs Livestock System (CLS). Waste and livestock barns can be seen in Table 5 below.

Table 5. Mapping of variative potential of Jambi Province.

No	District	Potency			Commodity	
		PV 1	PV2	PV3	Amount	Status
1	Total	71	84	90	245	Potential
2	Global Province Commodity Ranking	3	2	1		
3	Commodity Category				Potential Ability	Commodity Total
3.1	1. Most Commodity			PV3	11	121
3.2	2. Medium Commodity		PV2		15	165
3.3	3. Little Commodity	PV1			7	77
3.4	**Number of Commodity Diversity**	245				**363**
3.5	**Percentage of Commodity Diversity**	67,49				

Source: Analysis Results (2017)

CLS policies that can be applied in Jambi Province are: 1) all potential commodities have strong integration, 2) integration of variative waste commodities based on efforts made to optimize waste, 3) total varied combinations of waste connecting CLS business with a strength of 69.70% (Table 6). The variant religious data produced from waste can be seen in Table 6.

Table 6. Mapping of Jambi Province variative waste potential.

No	Commodity	Amount		Potential Value	Status	Output
		Variative Combination	Factory Waste			Authority
1	Plantation	71	71	1	Based on the dominant kind	CLS
2	Farming	84	84	1	Based on the dominant kind	CLS
3	Animal Husbandry	90	8	0,08	Feces, Urine, Blood, Skin, Bones, Fur, Nails, Horns	CLS, Factory Waste Optimization
	Amount	245	163			
	Global Province Commodity Ranking	1	2			
	Commodity Category :					
	1. Most Commodity	Animal Husbandry	98			
	2. Medium Commodity	Farming	84			
	3. Little Commodity	Plantation	71			
	Number of Commodity Diversity		**253**			
	Percentage of Commodity Waste Diversities					
	1. Animal Husbandry	**98**	**38,74**			
	2. Agriculture	**84**	**33,20**			
	3. Plantation	**71**	**28,06**			

Source: Analysis Results (2017)

The diversity of sub-sectors in Jambi Province is 66.67% (Table 5) of all businesses managed in the field of food.

Table 7. Location Mapping and variative Potential of Jambi Province.

No	District	Potency			Commodity		Development
		PV 1	PV2	PV3	Amount	Rating	
1	Kerinci	**6**	15	**9**	**30**	**1**	**Active potential**
2	Merangin	**7**	13	**8**	**28**	**2**	**Active potential**
3	Sarolangun	**7**	8	**7**	**22**	**5**	**Passive Potential**
4	Batang Hari	**7**	**10**	**7**	**24**	**3**	**Active potential**
5	Muaro Jambi	**7**	5	**10**	**22**	**5**	**Active potential**
6	Tanjung Jabung Timur	**7**	5	**8**	**20**	**7**	**Empowerment**
7	Tanjung Jabung Barat	**6**	8	**7**	**21**	**6**	**Passive Potential**
8	Tebo	**7**	5	**7**	**19**	**8**	**Empowerment**
9	Bungo	**7**	**6**	**10**	**23**	**4**	**Passive Potential**
10	Kota Jambi	**5**	0	**9**	**14**	**9**	**Empowerment**
11	Kota Sungai Penuh	**5**	9	**8**	**22**	**5**	**Passive Potential**
	Total	71	84	90	245		

Source: Analysis Results (2017)

Jambi Province has 3 main commodities, namely livestock (38.74%), agriculture (33.20) and plantations (28.06) with the amount of waste diversity is 253 varied combinations of waste potential when compared with the overall variative potential of the province's potential strength is the percentage of the ratio of waste to overall commodities is 69.70%.

Location mapping and varied potential Jambi Province has 3 (three) potential development areas namely active, passive and empowerment potential. In detail LQ Potential analysis can be detailed in Table 8.

Table 8. QSPM analysis.

	Horizontal/Priority	Vertical/Alternative	Active potential	Passive Potential	Conservation	Amount
Picture 1	Horizontally / transversely the plantation mapping has 3 (three) areas of commodity categories for green zone A (A1, A2), zone orange B (A4, B1, B2, B3) and yellow zone C (C1, C2, C3). Regency with green zone commodity is 1,2,3,4,5,6,7,8,9. zone B in the district 5,6,7,8,9,11 and yellow zone C in district 10.	Vertically mapping plantations has 2 zones, namely Active / High Potential (A1, A2) and Passive / Moderate Potential zones (A4, B1, B2, B3), and conservation zones (C1, C2, C3).	2	4	3	9
Picture 2	Horizontally / transversely the plantation mapping has 3 (three) areas of commodity categories for green zone A (A1, A2), zone orange B (A4, B1, B2, B3) and yellow zone C (C1, C2, C3). Regency with green zone commodity is 1,2,3,4,5,6,7,8,9. zone B in the district 5,6,7,8,9,11 and yellow zone C in district 10.	While vertically mapping plantations have 1 zone, namely Active / High Potential (A1, A2) and Passive / Medium Potential zone (0), and conservation zone (C1).	1	0	1	2
Picturer 3	horizontally / transversely the mapping of farms has 4 (four) areas of commodity categories for green zone A Non Poultry Cattle (A1, A2, A3, A4), zone orange B (B1, B2, B3), and orange zone C (C1, C2, C3) Regency with commodity of green zone of non-poultry livestock namely 1,2,3,4,5,6, zone B of non-poultry livestock (B1, B2) in regency namely 7,8,9,10,11 and green zone of poultry in district 1,2,3,4,5,6,7,8 and zone B of poultry in district 9.10.11.	While vertically mapping farms have 4 zones, namely Active / High Potential (A1, A2) non-poultry livestock and poultry and the Passive / Medium Potential zone (B1) of non-poultry livestock and poultry and conservation zones (B1, B2) and for livestock non poultry and poultry (C1, C2, C3). Most districts have the potential for livestock farming, especially 1,5,6,8,9 (For Livestock Barn Program	2	3	3	8
Amount			5	7	7	19

Depreciation of the area and function of agricultural land if it occurs continuously will cause a decrease in waste production so that the ability to support waste is low against the availability of other food sources. In this condition, a breeder's business is needed to be more creative in procuring minimal animal feed, including the use of waste in the formulation of cattle rations. Consumption, efficiency and feed conversion affect the production and productivity of cattle. A good pastoral planting pattern

when followed by human resource management and pasture management for integrity between existing farms and plantations. Although the land continues to experience extensive decline as a productive land for agriculture, plantations and forestry, land management techniques are an urgent interest in anticipating a decrease in land area and land management patterns (Nora, 2016)

The large percentage of provincial waste strength has the opportunity to develop CLS, considering that the general types of business carried out covering livestock, agriculture and plantations produce a diversity of regional potential, a varied combination of commodity potential and varied potential wastes to optimize the CLS (Crop Livestock System (CLS) program. a combination of data mapping results can be seen in Table 9.

Table 9. Mapping of global potential of Jambi Province.

No.	Sector	A/H	B/O	C/K	Amount	A Active	P Passive	K Conservation
		Horizontal						
1	**Plantation**							
		1	1	1	3	1	1	1
		1	1	1	3	1	1	1
		1	1	1	3		1	1
			A/1		1		A/1	
	Amount	3	4	3	10	2	4	3
	K	9	6	1	16			
2	**Agriculture**	1	1	0	2	1		1
	Amount	1	1		2	1	0	1
	K	9	0	2	11	1		
3	Non Poultry Farms:	**1**	**1**	**1**		1/NU	1/NU. 1.U	1/U
		1	1	1		1/NU	1/U	1/U
		1	1	1				1/U
		1						
	Amount	4	3	3	10	2	3	3
	K	6	5		11			
	Poultry Farming	1	1	0				
		1						
	Amount	2	1	0	3			
	K	8	3		11			
	Amount (NU/U)	6	4	3	13			
	Amount (K)	14	8	22				
	Amount Number of Regencies (**T**)	18	6	3	27			
	Potential Amount (**T**)	4	5	3	12	3	4	4
	Amount Number of Regencies (**T**)	32	15	25	72		11	
	Potential Amount (**T**)	10	9	6	25			

Source: Results of Advanced Test Analysis (2017)

An alternative strategy that can be used in developing the potential as a basis for the utilization of Jambi Province's SDL is that potential mapping leads to periodic conservation, namely positions 5-7-7 = 5 where, the comparison between conservation areas is as large as active potential areas, prioritized potential utilization of locations the green zone mapping is the main priority of SDL for the CLS Program. While the passive potential area does not have a large influence on conservation conditions.

Weakness of passive potential is used as an alternative support program even though the strength of potential is not so great, but can be improved through accelerating the development of business types to support the main program in the green zone in 32 districts for all commodities with overall provincial potential strength (44.44%) for development Program CLS. According to Young (1992) that sustainable agricultural development policies are formulating environmental damage problems and resource deterioration which result in social costs and externalities in agricultural policy and internalized in economic policies through extension and relations approaches and economic incentives.

4. Conclusions

In Figure 1, the mapping of the plantation horizontally / transversely has 2 (two) areas, namely the green zone commodity category and vertically the plantation mapping in the zone, namely Active / High Potential (A1, A2). In Figure 2, the horizontal / transverse mapping of agriculture has 2 (two) areas, namely the green zone commodity category A (A1) and vertically the plantation mapping has 1 zone, namely Active / High Potential (A1, A2). In Figure 3, the horizontal / transverse mapping of farms has 2 (two) areas of commodity categories for green zone A Non Poultry Cattle (A1, A2, A3, A4) and green zone of poultry livestock in the district 1,2,3,4,5, 6,7,8. While vertically mapping farms have 2 zones, namely Active / High Potential (A1, A2) non-poultry livestock and poultry, and conservation zone (B1, B2) for non-poultry livestock and poultry (C1, C2, C3). Most districts have CLS potential for livestock, especially 1,5,6,8,9.

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