

Strategy of Organik Agriculture Development in West Sumatra

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Received: 06 Apr. 2023, Revised: 23 Apr. 2023, Accepted: 01 Jun. 2023

ABSTRACT

This study reviews the development of organic farming, especially in the paddy field sector, since the introduction of Organic Agriculture Certification (SPO) in 2010. The method used The research was conducted using a qualitative approach and using the Interpretative Structural Modeling (ISM) method, while the population used for the research is in the areas of Agam Regency and Padang Pariaman Regency, West Sumatra as well as a sample of farmer groups/individual farmers in Agam Regency and Padang Pariaman Regency who have obtained SPO certification. The results of an analysis of organic farming in Agam Regency and Padang Pariaman Regency, West Sumatra, focus on paddy fields for several farmer groups that have been certified until 2023. This study details the growth of organic farming in West Sumatra and strategies to support sustainability in the region. Efforts such as SLAPO, PPO, and organic certification are supported by the Organic Task Force and LSO. The strategy analysis involved coordination between Provincial and Regency governments, strengthening farmer groups, active incentives, production subsidies, and wholesaler partnerships. The ISM method is used to identify priorities, including government coordination and improvement of field officers and farmers.

KeyWords: Organic Agriculture, Development Strategy, Certification, Rice Fields, West Sumatra.



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INTRODUCTION

West Sumatra is a province that is developing from the agricultural sector. The agricultural sector is important in the economy of West Sumatra (Adnani et al., 2018; Prahara et al., 2021). This can be seen from the size of West Sumatra's Gross Regional Domestic Product (GRDP) from the contribution of the agricultural sector, based on data from the Central Statistics Agency (BPS) in 2022 it was 21.20%, in 2021 it reached 21.71%. Previously in 2020, the GRDP of West Sumatra Province from the agricultural sector was 22.38%.

Moving on from the existing potential, the West Sumatra Provincial Government has aligned it with the Regional Medium Term Development Plan (RPJMD), by including the agricultural sector in the development mission. In the period 2021-2026, the development mission of West Sumatra Province, namely the third mission/task, contains: "Increasing added value and productivity: agricultural products, plantation products, livestock products, and fishery products". In the explanation of this third mission/task, agriculture in a broad sense is a strategic development sector in West Sumatra for several reasons: 1) this sector plays a role in providing food (not only for West Sumatra but also for neighboring provinces); and 2) the potential for development of the agricultural industry which is supported by the ability to produce raw materials that support development in the long term. Furthermore, if we look back at the RPJMD for West Sumatra for the current period, to realize the achievement of the Vision and Mission for the development of West

Sumatra, the flagship Program/Work Plan for the Regional Government of West Sumatra Province for 2021-2026 has been established, namely: flagship program 3, namely Prosperous West Sumatra. West Sumatra Sejahtera is aimed at realizing West Sumatra as a rice and corn granary. From the superior programs mentioned above, it can be seen that the West Sumatra Provincial Government's desire for 2021-2026 is to realize sustainable community food security and security, one of which is through the implementation of organic farming which produces healthier food products.

Moving on from the ups and downs of organic farming development in West Sumatra, the difficulty of farmers obtaining subsidized inorganic fertilizers on the market (Walters, 2016), the issue of damage to agricultural land due to the application of inorganic fertilizers, and efforts to support the achievement of Sustainable Development Goals (SDGs) (especially the goal of ending hunger, achieve food security and better nutrition and support sustainable agriculture) amidst the increasing human population, researchers have conducted research with the title "Strategy for the Development of Organic Agriculture in Agam Regency and Padang Pariaman Regency), so it is hoped that with this research, the problem of developing organic agriculture in West Sumatra, the right strategy can be found to solve it in a structured manner. Therefore, this research uses the application of ISM in determining a structured strategy, so that it is clear which priority strategies will be taken.

METHODS

The research was conducted using a qualitative approach by relying on data interpretation in its analysis, namely various observations, interviews, and descriptions of written materials (Andrews et al., 2004). Then according to Muzari et al (2022), qualitative analysis emphasizes tendencies, where qualitative research relates to the ideas, perceptions, opinions, or beliefs of the individuals studied, the results cannot be measured with numbers.

Method ISM according to Eriyatno & Larasati (2013); Rini et al (2023) in ranking very complex problems, describing problems, and determining cause and effect relationships is very effective. Based on expert opinion, the contextual relationship between elements can be determined. Several criteria for determining a research expert are as follows: 1) the person has experience in the field being researched; 2) have a reputation or expertise in the field of study; and 3) have high credibility. In this research, 5 experts will be involved. With the following details: 3 people from the West Sumatra Organic Certification Institute (Ir. Yelfi Fatriezi, MP; Pastaliza Fatma, STP, MP; Wina Rizki Hartati, STP), 1 person from the Organic Task Force (Ir. Yusman Amir, MP) and 1 lecturer who concentrate on and master organic farming (Dr. Ir. Nofialdi, M.Si). Apart from that, Marimin (2005); Umar & Dewata (2020) mention the steps of the ISM method, namely: 1) dividing elements into several sub-sections; 2) building contextual relationships between sub-items; 3) matrixself-linking structural (SSIM) specified; 4) create a proximity matrix (RM); 5) carry out transitivity; 6) determine the vertical hierarchical structure; and 7) determine the relationship between matrices Driving Power (DP) and Demand (D) to produce SSIM through pairwise comparison with the VAXO symbol. Symbols have meaning:

- V; if $E_{ij} = 1$ and $E_{ji} = 0$; V = The i-th sub-element plays a greater role than the j-th sub-element and not vice versa.
- A; if $E_{ij} = 0$ and $E_{ji} = 1$; A = the jth sub-element has a more important role than the ith sub-element and not vice versa.

- X; if $E_{ij} = 1$ and $E_{ji} = 1$; X = both sub-elements have the same role level value and are related.
- Oh; if $E_{ij} = 0$ and $E_{ji} = 0$; O = the two sub-elements are not related to each other.

Four categories resulting from the classification of element relationships according to Marimin (2005); Umar & Dewata (2017) are as follows:

- Quadrant I called Autonomous, consists of sub-elements whose values are Driver Performance (DP) less than $0.5 X$ and value Dependence (D) less than $0.5 X$, where X is the number of sub-elements of each element. The sub-elements in this first quadrant can be considered as not having any relationship with the system or having no relationship with it.
- Quadrant II is called dependent, $DP \leq 0,5 X$ and $D\text{-value} \geq 0.5 X$. Second quadrant sub-elements depend on quadrant III elements.
- Quadrant III hooks are composed of sub-elements having a DP number of at least $0.5X$, and a dependency value (D) of at least $0.5X$. The number of sub-items in each item is called.
- Quadrant IV is Drivers (Independent) consisting of sub-elements with a large DP value equal to $0.5 X$, and a small D value equal to $0.5X$. Where X is the number of sub-items of each item.

RESULTS

3.1 Existing conditions of organic farming in rice fields

Agam Regency and Padang Pariaman Regency are a big part of the history of organic agricultural development in West Sumatra. At the start of Organic Agriculture Certification (SPO) in West Sumatra, namely in 2010, there were 5 SPO certified, of which 2 came from Kab. Agam, 2 came from Limapuluh Kota Regency and 1 came from Solok Regency. As of 2023, in Agam Regency, there have been 12 groups of farmers/individual farmers who have received SPO certification, out of a total of 45 groups of farmers/farmers in West Sumatra who have had SPO certification. Meanwhile in Padang Pariaman Regency, from 2010 until now there are 7 who have received organic certification. Thus, since 2010, Agam Regency and Padang Pariaman Regency have contributed 19 farmer groups/individual farmers who have SPO certification for rice fields out of a total of 45 farmer groups/individual farmers in West Sumatra. A total of 26 others are spread across 6 other regencies/cities in West Sumatra, including Limapuluh Kota Regency (10 farmer groups), Tanah Datar Regency (5), Solok Regency (4), Solok Regency (3), Dharmasraya Regency (1) and Padang Panjang City (3). In Table 1 below, a list of farmer groups/individual farmers in Agam Regency and Padang Pariaman Regency that have obtained SPO certification is displayed.

Table 1. List of farmer groups/individual farmers in Agam and Padang Pariaman who have obtained SPO certification

No	Certificate Farmer Group	Address	Land Area (Ha)	No. Certificate (LSO-SB)	Be in effect	Deadline Happens	Regency/ City
1	Organic Young Enterprises (085274425831)	Jrg. Pauh, Ngr. Kamang Mudiak, District. Kamang Magek, Kab. Agam	19,9	Reg.067/2018	10-9-2018	9-9-2021	Agam

No	Certificate Farmer Group	Address	Land Area (Ha)	No. Certificate (LSO-SB)	Be in effect	Deadline Happens	Regency/ City
2	Tani Village, Head of Sepakat Village (081363258416)	Jrg. Simarasok Koto Tuo, Ngr. Simarasok, Kec. Baso, Kab. Agam	0,64	Reg.002/2020	2-10-2020	1-10-2023	Agam
3	Edit Mas Organic (081363466347)	Jrg. Pasanehan, Ngr. Lasi, District. Canduang, Kab. Agam	1,75	Reg.012/2011	16-11-2011	16-11-2014	Agam
4	Agro Trust/ (085263555627)	Jrg. Sungai Angek, Ngr. Simarasok, Kec. Baso, Kab. Agam	4,06	Reg.016/2012	23-11-2012	22-11-2015	Agam
5	Organic Hall	Jr. Palupuh, Mr. Pasie Laweh, Kec. Palupuh, District religion	4,6	Reg.023/2012	31-12-2012	30-12-2015	Agam
6	New Hope (085375955774)	Jrg. Pauh, Ngr. Kamang Mudiak, District. Kamang Magek, Kab. Agam	4,05	Reg.027/2013	23-12-2013	22-12-2016	Agam
7	AA Taluak Organik (081374084990)	Jrg. Jambu Aia, Ngr. Taluak Ampek Tribe, District. Banuhampu, Kab. Agam	0,346	Reg.049/2016	28-10-2016	27-10-2019	Agam
8	Blessings Sure (081275759190)	Jr. Bukik Apik, Ngr. Padang Tarok, District Baso, Agam Regency	1,455	Reg.055/2017	20-11-2017	19-11-2020	Agam
9	New Hope (082390717879)	Jrg. Simarasok, Ngr. Simarasok, Kec. Baso, Kab. Agam	1,9152	Reg.056/2017	20-11-2017	19-11-2020	Agam
10	Keynara Organic (085271129668)	Jrg. Tigo Kampuang, Ngr. Salo, District. Baso, Kab. Agam	0,674	Reg.078/2020	21-12-2020	20-12-2023	Agam
11	Sawah Bangsa/ Riza Yendra (081374539642)	Jrg. Bansa, Ngr. Kamang Mudiak, District. Kamang Magek, Kab. Agam	4,134	Reg.083/2021	12-11-2021	11-11-2024	Agam
12	Cita Nala/ Syafrial (085214072731)	Jrg. Labuang, Ngr. Canduang Koto Laweh, District. Canduang, Kab. Agam	0,28	Reg.089/2022	23-12-2022	22-12-2025	Agam
13	Salodako Saiyo Sakato	Jrg. Padang Lapai, Ngr. Guguk, Kec. 2 x 11 Planting Wood Padang Pariaman Regency	4,25	Reg.020/2012	31-12-2012	30-12-2015	Padang Pariaman
14	Space	Jrg. Duku Surau, Ngr. Tapakis, District. Ulakan Tapakis, Padang Pariaman Regency	7,33	Reg.029/2014	28-11-2014	27-11-2017	Padang Pariaman
15	Be kind to you	Jrg. Pasa Karambia, Ngr. Guguk, District. 2x11 Planting Wood Padang Pariaman Regency	9,9	Reg.035/2015	3-3-2015	2-3-2018	Padang Pariaman
16	Mountain Lamp	Jrg. Kabun, Ngr. Sungai Buluh, District. Batang Anai, Padang Pariaman Regency	10,9803	Reg.036/2021	9-6-2021	8-6-2024	Padang Pariaman
17	Hidayah	Jrg. Talang Jala, Ngr. Sungai Buluh, Kec. Batang Anai, Padang Pariaman Regency	6,12	Reg.041/2015	5-10-2015	4-10-2018	Padang Pariaman
18	Beautiful Sakato	Jr. Kasai Kanagarian Kasang, District. Batang Anai, Padang Pariaman Regency	12,275	Reg.048/2022	16-8-2022	15-8-2025	Padang Pariaman
19	Tigo intersection	Jr. Talao Mundam, Ngr. Katapiang, District Batang Anai, Padang Pariaman Regency	9,05	Reg.059/2020	9-12-2020	8-12-2023	Padang Pariaman

Source: West Sumatra Organic Certification Institute, 2023.

Based on interviews with the relevant agencies, in this case, the Organic Task Force and Semi-Autonomous Institutions (LSO), information was obtained that to manage organic farming in West Sumatra, a special team had been formed and handed over, namely the Organic Task Force, aimed at supporting the development of organic farming in West Sumatra. and LSO is intended to assess and certify organic agriculture.

According to information obtained from informant 19 (Chair of the West Sumatra Organic Task Force), the activities carried out by the Organic Task Force to provide support for the development of organic agriculture in West Sumatra in 2023 include:

– Organic Agriculture Field School (SLAPO): There are 6 SLAPO packages planned. For

- 1 package, 12 meetings were held (1 coordination/preliminary meeting, 10 implementation meetings, and 1 field day).
- Center for Organic Agriculture Studies (PPO) for vegetables and horticulture: Located in Alahan Panjang, aimed at finding technology at the farmer level related to organic farming. There is no PPO regarding lowland rice yet. However, it is also possible that the results obtained from this PPO can be utilized by lowland rice farmers.
 - SPO Training: Before certification by LSO, the Organic Task Force trains farmers to prepare certification documents. This training was carried out in 7 meetings.
 - Organic Farmers Technical Meeting: Attended by organic farmers, aimed at exchanging information between organic farmers. Technical meetings are held 5 times a year. Two provincial-level meetings, and 3 regional-level meetings.

Support for activities as mentioned above is once again budgeted for a maximum of 2022 and will continue in 2023. Support for this activity has experienced a dark period, where the available support was very minimal in the period 2018 to 2021. Regarding the activities of the Organic Task Force, informants 20 and 21 who were both from LSO said that the Organic Task Force also provided packaging to organic rice farmers in West Sumatra. It is hoped that this packaging will encourage potential consumers' assessment of organic rice. Furthermore, based on information obtained from informant 21 (LSO personnel), the LSO in charge of conducting assessments and SPOs has the following activities:

- Processing requests for organic certification for free: To provide certainty and organic recognition for organic farming activities, organic certification is required. This certification process is carried out by the LSO which was formed by the Governor of West Sumatra with Governor Decree No. 520-24-2007. This Organic Certification Institute belonging to the West Sumatra Provincial Government has been accredited by KAN with Register Number LSPO-004- IDN SNI-6729-2013. For farmers groups throughout West Sumatra Province who will carry out certification, there is no fee charged, no matter how small, all services are provided free of charge by LSO.
- Organic Farmers Technical Meeting: The Organic Farmers technical meeting was allocated 2 times by LSO. This technical meeting brought together organic farming practitioners in West Sumatra. In this technical meeting, material was provided regarding technical problems faced by organic farmers. At the last meeting, the material raised was the issue of marketing organic agricultural products.

3.2 Organic Agriculture Development Strategy in West Sumatra

To achieve the goals of developing organic agriculture, solving problems is of course by using good strategies. Moving on from the existing problems, the activities carried out by the relevant agencies in developing organic farming in West Sumatra were then included in the problem-solving strategy. Next, a strategy is formulated based on the analysis of existing problems. We can show this strategy in Table 2 below.

Table 2. Formulation of strategies to resolve problems in developing organic agriculture in West Sumatra

Problem	Existing strategy	Strategy Proposal
Low level of farmer confidence in the level of success of organic farming businesses	SLAPO PPO	Increasing farmers' understanding through Optimizing SLAPO, PPO and Technical Meetings
Transfer of Ownership/Concession of land, transfer of commodities	Ago Technical	Prevent land conversion and commodity transfer through policy and outreach involving local government and local community leaders.

The work requires more time/energy than conventional cultivation, especially the provision of fertilizers and pesticides/herbicides, organic fertilizers and pesticides are not/rarely available on the market		Encourage investment in the production of organic fertilizers and vegetable pesticides that are certified organic on a regional basis
Tendency to reduce results during the conversion period		Increasing farmers' understanding through Optimizing SLAPO, PPO and Technical Meetings
The difficulty of marketing at a good price		Branding organic rice products
There are minimal rewards or incentives or program priorities for organic farmers		Strengthening organic farmer group institutions and providing incentives for active groups
There is a distribution program for free fertilizer and subsidized fertilizer	Providing packaging to farmers organic rice	Providing subsidies for organic agricultural production facilities
Lack of guidance, synergy between provincial and district governments in developing organic agriculture		Facilitate partnerships between farmer groups and large/private traders
		Improving coordination between the provincial and district governments by increasing human resources for field officers and producing militant expert farmers

Source: Results of analysis of problems and activities carried out by the special team for the development of organic agriculture in West Sumatra, 2023.

The strategies formulated in Table 2 above were obtained from analysis of interview results and literature review. Based on Table 2 above, the certification problem no longer arises, because it has been completely resolved through activities carried out by the relevant technical agencies, through free organic farming certification activities. In order to make the development of organic farming in West Sumatra a success, free certification activities need to be maintained. Next, to structure the strategies above, analysis was carried out using ISM. The following are the steps and results obtained from ISM, namely:

1. Sub-elements used in the ISM method: Before data processing is carried out using ISM software, coding is first carried out on the sub-elements of the organic farming development strategy. The code for these sub-elements is as follows:
 - A.1. Increasing farmers' understanding through Optimizing SLAPO, PPO and Technical Meetings.
 - A.2. Prevent land conversion and commodity transfer through policy and outreach involving local government and local community leaders.
 - A.3. Encourage investment in the production of organic fertilizers and vegetable pesticides that are certified organic on a regional basis.
 - A.4. Branding organic rice products.
 - A.5. Facilitate partnerships between farmer groups and large/private traders.
 - A.6. Strengthening organic farmer group institutions and providing incentives for active groups.
 - A.7. Providing subsidies for organic agricultural production facilities.
 - A.8. Improving coordination between the provincial and district governments by increasing human resources for field officers and producing militant expert farmers.
2. Building contextual relationships between sub-elements.

Table 3. Symbols and definitions used in filling in contextual relationships

Symbol	Definition
V	The ith sub-element has more priority than the jth sub-element
A	The jth sub-element has more priority than the ith sub-element
X	Both sub-elements have the same priority
O	Both sub-elements are equally unnecessary

Furthermore, in Fig 1 below is the contextual relationship between the sub-elements that are built.

		Usulan Strategi							
I	J	A1	A2	A3	A4	A5	A6	A7	A8
A1									
A2									
A3									
A4									
A5									
A6									
A7									
A8									

Figure 1. Contextual relationships between built sub-elements

The contextual relationships between the sub-elements that are built will be filled in by experts. The expert will determine the priority level of the relationship between sub-elements of the organic farming development strategy in West Sumatra (A1-A2, A1-A3, and so on, and ends up comparing sub-elements A7-A8).

3. SSIM: Next, Fig 2 below is the SSIM determined by experts from a selection of sub-elements of organic farming development strategies.

NO	A1	A2	A3	A4	A5	A6	A7	A8
A1		V	V	A	X	A	A	A
A2			A	X	A	A	A	A
A3				A	X	A	A	A
A4					A	A	A	A
A5						A	A	A
A6							V	A
A7								A
A8								

Figure 2. SSIM determined

In the matrix above, it appears that sub-element A8 (Improving provincial/regency government coordination by increasing human resources for field officers and producing militant expert farmers) dominates the priority scale when connected with all other sub-elements. Likewise, sub-element A6 (Strengthening organic farmer group institutions and providing incentives for active groups), is also on the priority scale when linked to all sub-elements, except when linked to sub-element A8. Based on this SSIM matrix, it seems that experts agree that sub-element A8 is the most important sub-element in the development of organic agriculture.

4. Revision Matrix (RM): Next, Figure 3 is the next process of SSIM, namely RM from the results of SSIM sub-elements of organic farming development strategies.

NO	A1	A2	A3	A4	A5	A6	A7	A8
A1	1	1	1	0	1	0	0	0
A2	0	1	0	1	0	0	0	0
A3	0	1	1	0	1	0	0	0
A4	1	1	1	1	0	0	0	0
A5	1	1	1	1	1	0	0	0
A6	1	1	1	1	1	1	1	0
A7	1	1	1	1	1	0	1	0
A8	1	1	1	1	1	1	1	1

Figure 3. RM revenue

5. Revision Matrix: Next, Figure 4 below is the resultRevision Matrix from the RM of the strategy selection process for the development of organic agriculture in West Sumatra. ValueInconsistency Index The SSIM determined from expert selection is 9.38%, so the validity value is 90.62%. The validity value of 90.62% means that the SSIM

determination by experts is acceptable. The level of consistency of the experts' choices is quite high, above 90%.

NO	A1	A2	A3	A4	A5	A6	A7	A8
A1	1	1	1	1	1	0	0	0
A2	1	1	1	1	0	0	0	0
A3	1	1	1	1	1	0	0	0
A4	1	1	1	1	1	0	0	0
A5	1	1	1	1	1	0	0	0
A6	1	1	1	1	1	1	1	0
A7	1	1	1	1	1	0	1	0
A8	1	1	1	1	1	1	1	1

Figure 4.Revision Matrix and the Inconsistency Index from SSIM

6. Final Matrix: In Fig 5 it appears Final Matrix SSIM organic farming development strategy is the next processing process after it is carried out Revision Matrix.

NO	A1	A2	A3	A4	A5	A6	A7	A8	DP	R
A1	1	1	1	1	1	0	0	0	5	4
A2	1	1	1	1	0	0	0	0	4	5
A3	1	1	1	1	1	0	0	0	5	4
A4	1	1	1	1	1	0	0	0	5	4
A5	1	1	1	1	1	0	0	0	5	4
A6	1	1	1	1	1	1	1	0	7	2
A7	1	1	1	1	1	0	1	0	6	3
A8	1	1	1	1	1	1	1	1	8	1
D	8	8	8	8	7	2	3	1		
L	1	1	1	1	2	4	3	5		

Figure 5.Final Matrix SSIM organic farming development strategy

7. Determine the vertical hierarchical structure. Fig 6 below shows a graph of the vertical hierarchical structure of the organic farming development strategy obtained from processing using ISM.

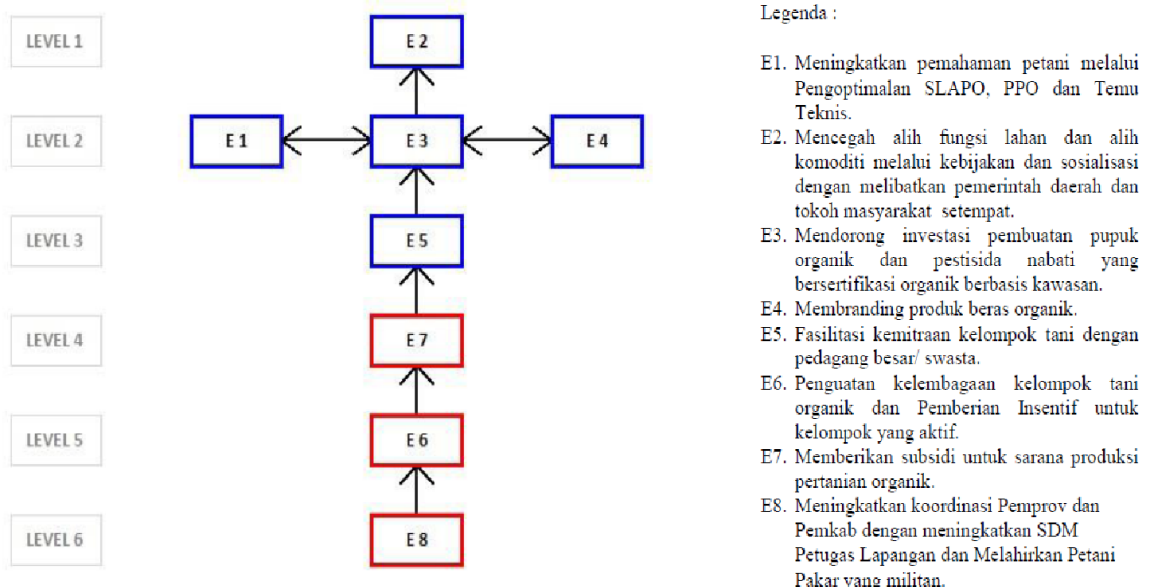


Figure 6. Graph of the vertical hierarchical structure of organic farming development strategies (In Indonesia)

Based on the graph in Fig 6 above, it can be seen that the strategy that must be implemented first in developing organic farming in West Sumatra is "Improving coordination between the Provincial/District Government by increasing human resources

for field officers and producing militant expert farmers", followed by "Strengthening the institutions of organic farmer groups and providing Incentives for active groups", then "Providing subsidies for organic agricultural production facilities".

After the above strategy has been implemented, the next step is to "facilitate partnerships between farmer groups and large/private traders". If these strategies have been implemented then simultaneously the strategies of "Increasing farmer understanding through Optimizing SLAPO, PPO and Technical Meetings", "Encouraging investment in making organic fertilizers and vegetable pesticides that are organically certified on a regional basis" and "Branding organic rice products" can be carried out simultaneously. ". Meanwhile, the strategy "Preventing land conversion and commodity transfer through policy and outreach involving local government and local community leaders" is the last part carried out according to experts based on ISM analysis.

- Determine the relationship of DP and D to produce SSIM through pairwise comparison with the VAXO symbol. In Figure 7 it can be seen in the SSIM interaction matrix of organic farming development strategies, the relationship matrix of DP and D.

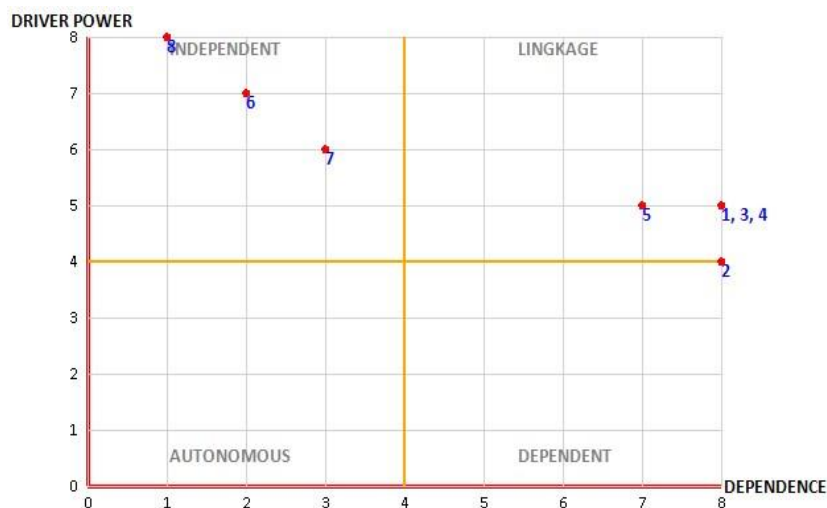


Figure 7. SSIM interaction matrix for organic farming development strategy, relationship matrix between DP and D

Based on Fig 7 above, we can see that none of the strategies offered are in quadrants 1 and 2. All the strategies offered are divided into quadrants 3 and 4. Strategy to improve coordination between provincial and district governments by increasing human resources for field and delivery officers. Militant expert farmers (8), institutional strengthening of organic farmer groups and providing incentives for active groups (6); and Providing subsidies for organic agricultural production facilities (7) are in quadrant 4 (independent).

A strategy in quadrant 4 means having a strong driving force and low dependency for solving existing problems. We must take advantage of the strategic strengths that exist in quadrant 4. For the initial stage, these 3 strategies must be implemented. Of the 3 strategies in quadrant 4, strategy 8 has the highest driving force and the lowest has a dependency value. Next, successively followed by strategies 6 and 7.

The other five (5) strategies offered are in quadrant 3 (Lingkage). A strategy in quadrant 3 means having a strong driving force and great dependence. The strategies in quadrant 3 will influence the strategies in quadrants 4 and 2, but none of the strategies we offer are in quadrant 2. However, in implementation, caution is still needed, so as not to influence the strategies in quadrant 4. Of the five (5) strategies in quadrant 3, 4 strategies have the same

driving force, namely the strategy of facilitating partnerships between farmer groups and large/private traders (5), increasing farmers' understanding through SLAPO optimization, Center for Organic Agriculture Studies and Gathering Technical (1), Encouraging investment in making organic fertilizers and vegetable pesticides that are certified organic on a regional basis (3), and Branding organic rice products (4), but strategy 5 has the lowest dependency value, the other 3 strategies have the same dependency value . Of the strategies included in quadrant 3, the strategy of preventing land conversion and commodity transfer through policy and outreach involving local government and local community leaders (2) is the strategy that has the lowest driving force and the highest dependency.

CONCLUSIONS

The development strategy analysis outlines main steps including better coordination between Provincial and Regency Governments, Strengthening Farmer Group Institutions, Incentives for active farmer groups, subsidies for production facilities, and partnerships with large traders. This research provides a comprehensive overview of the development of organic farming in West Sumatra and outlines important strategies to support the continuation and success of organic farming in the region.

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