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## **Strategies of Transmigrant Autonomy Development in Farming in South Sumatera Province, Indonesia**

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### **Abstract**

The development of the autonomy of transmigration community in farming is very necessary to make the transmigrants able to increase their income and achieve prosperity. Autonomy is an inner capability that joins with the capabilities of other individuals who form a partnership to achieve the greatest success together. The objectives of the research were to formulate an effective strategy to develop the autonomy of transmigrants in farming. The study was conducted from May 2016 to January 2017. The total population was 3,537 transmigrant households. The size of the sample in this study was determined by using the Slovin formula. The number of samples was 359 respondents, using the stratified random sampling. The research data consisted of primary data and secondary data. The primary data were obtained through structured interviews, in-depth interviews, and field observations. The development strategy of transmigrants' autonomy in farming was formulated based on the result of SEM (Structural Equation Modeling). The results of the study showed that the strategy to develop the autonomy of transmigrants in farming was by increasing access to resources, support of socio-cultural environment, extension activities, and the quality of individual characteristics of transmigrants.

**Keywords:** autonomy; farming; transmigrants; transmigration.

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## **1. Introduction**

Transmigration is a program of population movement from one island to the island in Indonesia, organized by the government. Transmigration is not only to move the population, but to the development of the region and the establishment of growth centers. Transmigration is a cross-regional program to address the problems faced by regions within the framework of national development. The development of transmigration has so far contributed to regional development. However, there are still some drawbacks or weaknesses. Although numerous efforts have been made by the government to develop transmigration areas, until now many transmigration areas are still unable develop into growth centers as expected. New paradigms or concepts in the implementation of transmigration, especially in the era of the reform governments, come and go in attempts to address the various problems that arise in the field. Nevertheless, very often the facts in the field are quite different from the initial expectations. According to [1,2], most transmigration settlements have not developed well. Based on the research conducted by [3] and the data of the Ministry of Transmigration [4, 5], it is obvious that after the mentoring period is over, only about 30-40 percent of transmigration settlements can develop independently. References [6,7] point out that the transmigration sites that are not able to develop will create transmigrant families who live below the poverty line. As a result, many families decide to leave their transmigration sites, making the areas underdeveloped. The research by [8,9] indicated that low-quality human resources was one of the reasons why many transmigrants could not develop their transmigration sites fast. Reference [10] mentioned that many transmigration sites had complete infrastructure, but due to the low productivity of the transmigrants, the site were unfortunately unable to achieve satisfactory economic growth. This usually happened because the development of infrastructure and facilities in the transmigration sites was not in line with the improvement of the quality and competence of transmigrants. The research by [11] found that the government policy in developing transmigration areas put more emphasis on the improvement of infrastructure and facilities than on the improvement of transmigrants' skills, making them uninformed and less able to access information and technology / innovation in the field of business. The research by [12,13] also mentioned that, in general, transmigrants (mostly farmers) had no entrepreneurial knowledge. They were unable to innovate well and had insufficient network with potential business partners.

The above-mentioned findings show the low autonomy of transmigrants in farming. Therefore, relevant efforts are required to develop the autonomy of transmigration communities in farming so that they will be able to increase their income tremendously to achieve prosperity. In this case, it is necessary to have an effective strategy to enable to realize the autonomy of the transmigration communities in farming.

## **2. Research methods**

This was actually explanatory research and it tried to examine the relationship between research variables and, at the same time, to test the hypothesis that had previously been formulated. The research was conducted in the regencies of Banyuasin and Ogan Ilir, South Sumatera Province, considering that these regencies had the most transmigrants in the province. The total population was 3,537 transmigrant households. The size of the sample in this study was determined by using the Slovin formula. The number of samples was 359 respondents with a method of stratified random sampling, with stratification: length of stay, residential area, origin, and type of

transmigration.

Data collection was carried out to obtain primary data and secondary data. The primary data were obtained through structured interviews, in-depth interviews, and field observations. The strategy of transmigrant autonomy development in farming was formulated based on the result of SEM (Structural Equation Modeling) analysis.

### 3. Results and discussion

#### 3.1. Transmigrant autonomy

The autonomy level of transmigrants which was measured by such aspects as partnership, modernity, and competitiveness was in the low category. Percentages of each category are presented in Table 1.

**Table 1:** Distribution of the autonomy level of transmigrants in Banyuasin and Ogan Ilir in 2016

Sub-variables of autonomy level	Category	Regency		Total (n=359) (%)
		Banyuasin (n=284)	Ogan Ilir (n=75)	
		(%)	(%)	
Partnership Average score: 42,4	Low	81.0	84.0	81.6
	Medium	14.8	8.0	13.4
	High	4.2	8.0	5.0
	Total	100.0	100.0	100.0
Modernity Average score: 33,9	Low	89.3	80.0	87.5
	Medium	10.7	20.0	12.5
	High	0.0	0.0	0.0
	Total	100.0	100.0	100.0
Competitiveness Average score: 22,2	Low	89.4	72.0	85.8
	Medium	10.6	28.0	14.2
	High	0.0	0.0	0.0
	Total	100.0	100.0	100.0

Note: Average score: Low = 0-50, Medium = 51-75, High = 76-100

The low autonomy of transmigrants in partnership was indicated by the lack of their partnership building, for example, with traders and companies. The existing partnership practice was just 28 percent of all transmigrants in both regencies. The autonomy of transmigrants in modernity was categorized as low, indicated by the lack of their capability to find and implement innovations, especially in planting, pest control, and post-harvest. The transmigrants' limited knowledge on innovations and access to capital and the low level of their risk-taking courage were the main inhibiting factors for the transmigrants to make more innovative decisions. The role of outsiders such as agents of change was indispensable in motivating and encouraging transmigrants to create

innovation in farming. According to [14], motivators should be able to arouse enthusiasm and bury the weaknesses of the subject, regardless of the background of their life and despite the heavy burden of the challenge.

The low autonomy of transmigrants in competitiveness was indicated by the lack of transmigrants' attention to consumer services and less commitment to the needs and expectations of customers. The farming activities carried out by the transmigrants turned into routines to make money without much thinking about the direction of commodity development in order to improve the competitiveness of farm products according to the tastes of the market and consumers, resulting in low competitiveness.

### ***3.2. Strategy of transmigrant autonomy development in farming***

The development of the transmigrants' autonomy in farming is interpreted as a learning process aimed at transforming the transmigrants' behavior to be highly knowledgeable, positive and skilled in running their farms. The development of communities and transmigration areas is very important to achieve the autonomy of transmigrants in an effort to improve welfare.

In general, the social condition of the transmigrant communities in the regencies of Banyuasin and Ogan Ilir was generally low, among others, indicated by the low level of their formal education. The support of their social environment was also low, especially the support of community leaders and the presence of farmer groups. The support of several related institutions for the transmigrant farming was also low, especially in the provision of money capital, production inputs, and information. Similarly, non-intensive extension activities and little attention to the needs and problems of transmigrants had also contributed to this condition. Transmigrant empowerment was low in all aspects, such as business planning, production management, capital management, and marketing management. The autonomy of transmigrants was low both in terms of modernity and competitiveness.

Based on the analysis of the dominant factors affecting the level of autonomy of transmigrants in farming using SEM, it was obtained an empirical model of the structure of research variables relationship in the form of a track diagram as presented in Figure 1. The model had met the test of fit model criteria, consisting of of: GFI value = 0.98 (> 0.90); AGFI = 0.95 (> 0.90); RMR = 0.058 (<0.07); RMSEA = 0.061 (<0.08); NFI = 1.00 (> 0.95); RFI = 1.00 (> 0.90); CFI = 1.00 (> 0.95), so that the model generated from the study was qualified for predicting the population. Based on the model, it was then operationalized into three development strategies for the autonomy of transmigrants in farming. The development of transmigrant autonomy in farming in terms of system approach can be done by referring to the situation in the transmigrant community. Furthermore, the program can be applied from available inputs, such as transmigrants, community leaders, groups, extension agencies, and support institutions. Based on the existing inputs, a participatory extension process is undertaken, optimizing groups as learning media, intensifying a cooperation with related parties, and producing output or outcome as expected. The expected output out of the process is the increased empowerment of transmigrants in farming. Finally, the outcome of the output was the increasing autonomy of transmigrants in farming (Figure 2). The development of transmigrant autonomy is formulated as follows:

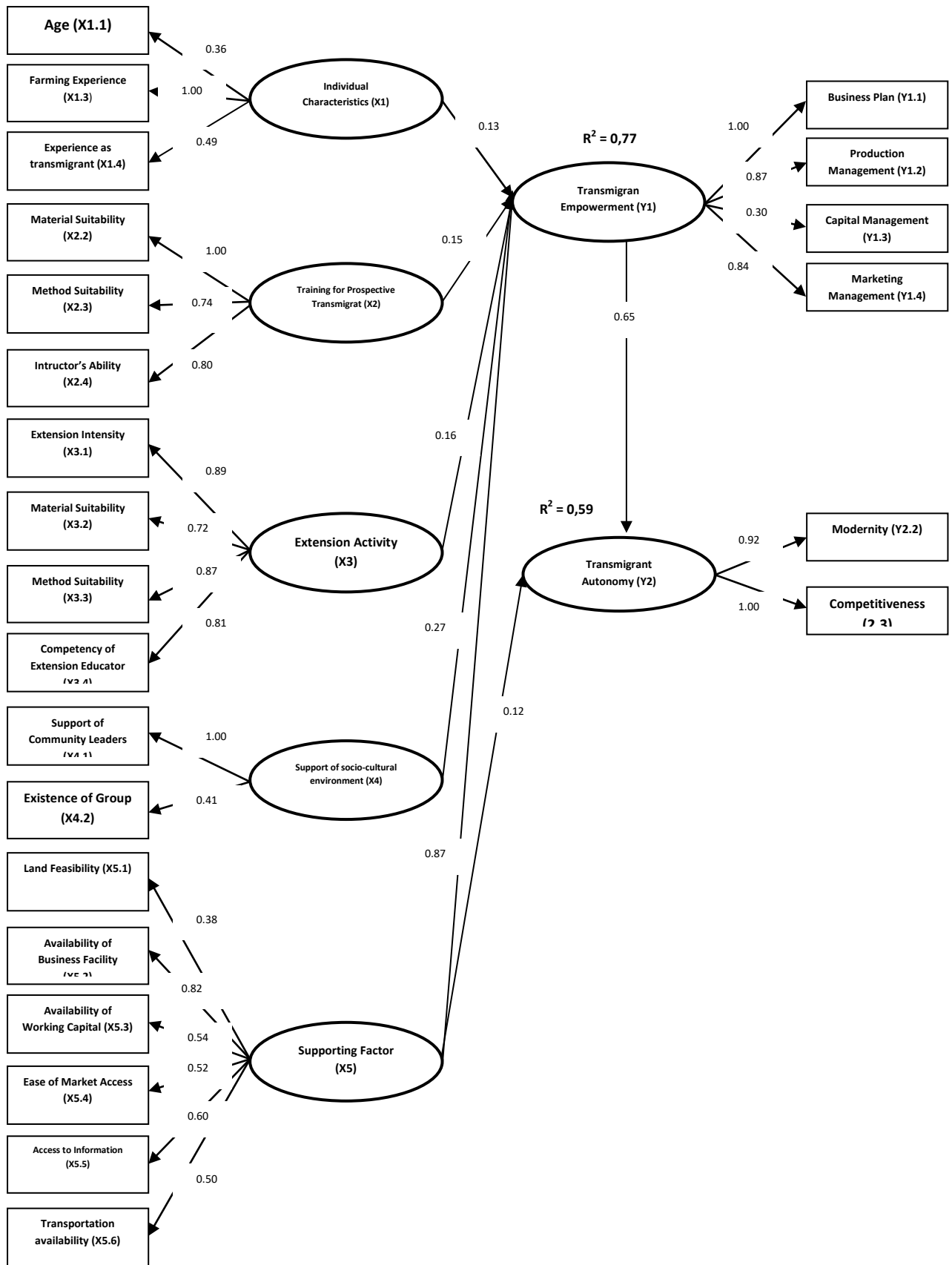
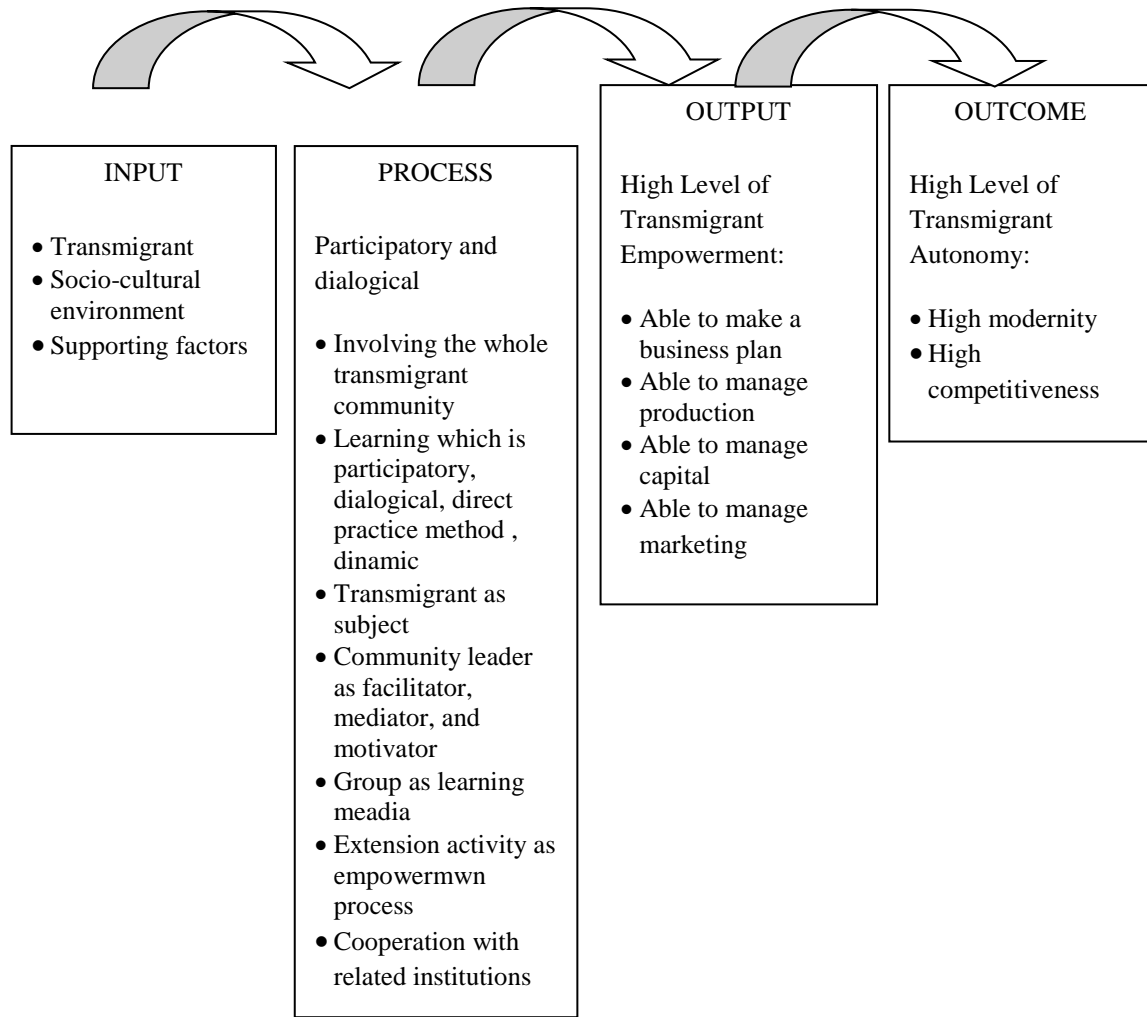


Figure 1: Model of the dominant structural factor that influences the autonomy of transmigrants in farming



**Figure 2:** Scheme of the development of transmigrant autonomy in farming

**3.2.1. First, Improving the availability and quality of supporting resources**

**3.2.1.1. Increasing the availability of the agricultural facilities**

Seeds are the main input in transmigrant farming with rubber and oil palm commodities. In fact, transmigrants have difficulty obtaining such inputs with proper quantity, quality, and prices. Most transmigrants go seeds by purchasing local seeds that were not superior seeds. The use of seeds from the local farm had an effect on the low crop productivity, decreasing productivity to below 50 percent and making transmigrant farming ineffective and inefficient.

It is necessary to initiate a cooperation with Sembawa Rubber Research Center in Banyuwangi Regency, a government institution that provides superior seeds of rubber and oil palm. The agency opens a cooperation opportunity in form of franchise. Transmigration Office plays an important role in strengthening transmigration institutions to realize the cooperation between the franchise and Sembawa Rubber Research Center, so that transmigrants have access to superior seeds. Counseling should be continuously available to inform transmigrants about the importance and benefits of using superior seeds and their effects on quantity, quality,

and production sustainability.

In addition to seeds, fertilizers and pesticides are important elements as production input. Not all transmigration sites have kiosks of agricultural facilities. Many transmigrants find it difficult to get pesticides because they have to go to the town to buy. If pesticides are available in the transmigration side, the price is very often not affordable. Because of the inactive location of farmer groups, the transmigrants could not access subsidized fertilizer, so that they had to buy non-subsidized fertilizer at a more expensive price. The farmer groups should be strengthened so that the transmigrants can get access to subsidized fertilizer. The kiosks of agricultural facilities should also be sustained to be managed by farmer groups or a combination of farmer groups (*gapoktan*), so it would facilitate the transmigrants to obtain pesticides plants. The roles of extension educators and Transmigration Office are to strengthen farmer groups and facilitate transmigrants through farmer groups to cooperate with production input providers, such as fertilizer distributors and pesticides plants to obtain lower prices.

### **3.2.1.2. Increasing access to information**

Transmigrant information access to researchers, extension orkers and mass media was at a low level due to the low intensity of interaction with such parties and the lack of innovative technologies offered. More information was obtained from fellow transmigrants, group leaders, and traders, but it was not yet in accordance with the needs and solutions of transmigrant problems.

It is necessary to facilitate transmigrants through farmer groups to cooperate with research institutions, such as BPTP (South Sumatra Agricultural Technology Assessment Institute), Sembawa Rubber Research Center in Banyuasin Regency, and universities (such as Sriwijaya University) as a source of information on rubber cultivation technology and oil palm.

Other sources of information can be utilized to develop a transmigrant farming enterprise, with the concept of Agricultural Knowledge and Information System (AKIS). In this system, there is a synergic cooperation to increase harmony between knowledge and environment, and the technology used in farming. New knowledge is developed not only by research institutions but also by many other sources.

Related to the development of information system, the utilization of information-based communication and information technology should be optimized. It is necessary to continue building the availability of the Internet network at transmigration sites, so that up-to-date information can be quickly accessed and utilized. Cyber extension is one of agriculture innovation communication systems that can be functioned to bring together research, development and assessment institutes with innovation disseminators (extension agents), educators, farmers, and other stakeholder groups. Each stakeholder has a need for different types and forms of information so that they can play a synergistic and complementary role.

A mechanism of information exchange through cyber areas with cafeteria principles (various types of innovations available) can be used by transmigrants. Institutions of local communities, such as farmer groups and village counseling posts (*posluhdes*) should continue to be developed as a media forum so that

transmigrants who can access information-based communications and information technology can continue sharing other transmigrants with farmers' groups and *posluhdes* as forums to meet and share information. Extension educators are expected to be facilitators so that transmigrants are able to choose and decide for themselves something that is needed in the proper farming management.

#### ***3.2.1.3. Increasing access to business capital***

Transmigrants access to formal financial institutions such as banking was very low. Existing conditions show that business capital needs were met by own capital which was generally very limited in amount, or borrowing from middlemen with a bond in the form of products that must be sold to the middleman at a price set by the middleman. On the other hand, there is a credit scheme available for farmers, namely Micro Business Credit (KUR) from the government through banks that can be utilized by transmigrants. Related to this, there should be a connection that brings both sides together. Facilitating transmigrants can be done through farmer groups to cooperate with financial institutions or banks that channel credit schemes, such as micro KUR.

The roles of extension educators and Transmigration Office are needed to bridge it. For the banks, extension educators can provide information on the value of the capital needed for farming and an appropriate installment system. In contrast to transmigrants, extension educators can provide information on the mechanisms and requirements of credit borrowing. The extension worker's clear explanation of the microcredit credit scheme to transmigrants has the potential to change the perception of transmigrants that borrowing capital credit to banks is troublesome and complicated. Management of venture capital with micro KUR credit by transmigrants requires counseling measures from extension educators, so that the capital can be used effectively to develop farming.

#### ***3.2.1.4. Increasing transportation access***

The availability of transportation at very low conditions. Most of the road conditions were still in bad condition, so during the rainy season could not be passed by four-wheeled vehicles. In addition, there was no public transport that could be used by transmigrants to go to the city from most locations, making the marketing of crops hard to do. Increasing the availability of transportation requires the government's policies and alignment in building roads and bridges at transmigration sites.

#### ***3.2.1.5. Increasing market access***

Transmigrants had no problem in marketing commodities because all products were absorbed by the market and transmigrants still got profits. Nevertheless, actual profits could be further enhanced by jointly selling through a group. There should be a move to form cooperatives in all transmigration settlements. The margin share that had more been enjoyed by many traders / middlemen, it would be enjoyed by cooperative members through direct sales to the company, cooperation with the principle of mutual benefits. Extension educators and Transmigration Offices could play a role in facilitating the establishment of cooperatives.



### **3.2.1.6. Increasing land eligibility**

Eligibility of land under low conditions. The land type in the transmigration area is tidal swamp land and low swamp land. Both types of the lands include suboptimal land, and the conditions of these lands affected the productivity of crops and ultimately would affect the income of transmigrants. About land status, there was still a dispute with a company so that transmigrants could not utilize the land at all.

Efforts to improve the eligibility of the lands require access to technology (such as from research institutions) for transmigrants to deal with low land fertility rates, and the government's support for the settlement of transmigrant land disputes with companies. It is necessary to facilitate transmigrants through farmer groups to cooperate with research institutions, such as BPTP (South Sumatra Agricultural Research Institute), Sembawa Rubber Research Center in Banyuasin Regency, and universities (such as Sriwijaya University) as a source of soil and water management technology information on swamplands to help address the problems facing transmigrants.

### **3.2.2. Second, Improving support of socio-cultural environment**

#### **3.2.2.1. Increasing the role of community leaders**

Support community leaders was in a low condition. Community leaders rarely provided information that supported farming activities. They were less helpful to transmigrants when there was a problem in running a farm, and when less motivated, transmigrants sought and disseminated new ideas / technologies for business progress. It is necessary to increase the role of community leaders by engaging in the application of technological innovation and assisting in bridging cooperation with related parties for access financial capital and markets. Training in order to develop the capacity of community leaders is necessary to institutionalize the development of the ability of community leaders as motivators and facilitators in the community.

#### **3.2.2.2. Increasing the role of farmer groups**

The existence of the group in a low condition means that the group has less role as an interactive vehicle that is effective in the learning process and to strengthen the bargaining position. The roles of extension educators and the Transmigration Office are needed in encouraging the group to become a dynamic group, optimizing group activities to suit transmigrant needs, such as activating farmer groups with various empowerment activities for transmigrants and linking groups with experts in the field of farming. It is necessary to strengthen the existence of farmer groups as a vehicle in advocating the interests of transmigrants and bridging a transmigrant cooperation with the providers of production facilities, agricultural product buyers, technological information providers, and with financial institutions.

With respect to the transmigrants with low access to groups, extension educators need to motivate them to be interested and willing to participate in farmer group activities. This effort can be initiated by providing information to the transmigrants about the benefits of farmer groups. A person's perceived need will affect his or her motivation to act, and the motivation will further influence his or her activities. Extension educators need to involve local community leaders to motivate the transmigrants to be active in farmer groups.

### **3.2.3. Third, Development of extension activities**

The frequency of implementation of extension activities was low, and this was related to the specification of the extension instructor (about food crops and horticulture) which was different from the main commodity crop of transmigrants ie plantation crops. This made extension educators unable to help solve the problems faced by transmigrants in farming.

It is necessary to increase the participation of transmigrants in extension activities as a learning process to develop participatory, communicative and dialogical extension activities. Some ways to achieve this include: (a) the use of varied and "direct practice" counseling methods, with the aim of increasing the participants' comprehension of extension materials; (b) learning materials according to the needs and problems faced by transmigrants, and the suitability of the material weight with the number of hours of learning; (c) the increase in the competency of extension educators. Competent extension educators are required in the field of cultivation of plantation crops. The competency of extension educators can be enhanced through trainings on the cultivation technology of plantation crops, management aspects, and adult education methods; (d) given the limited availability of government extension agents (Civil Servants), it is necessary to recruit self-employed extension educators from among the transmigrants who succeed in farming. In this regard, what is needed is needed training for prospective extension officers and the availability of government's financial budget; and (e) the performance improvement of extension educators in the Agriculture Department is necessary for farmers / transmigrants to have an easy access to connect with extension agencies, support facilities needed by farmers, as well as the continuity of program implementation conducted.

## **4. Limitations**

This research uses positivism paradigm with quantitative research approach. The study was conducted in only one province and only in transmigrant receiving areas. The study was not conducted on the origin of transmigrants. The study was conducted on transmigrants who have participated in the transmigration program since 2000 (the period of regional autonomy) and have participated in at least five years of transmigration.

## **5. Conclusion**

Effective strategies for developing the autonomy of transmigrants in farming include (a) facilitating transmigrants through farmer groups to cooperate with relevant agencies, such as providers of production facilities, research institutions and financial institutions; (b) having government's policy and alignment in building infrastructure at the transmigration site; (c) developing cooperatives at all transmigration settlements; (d) accessing technology for transmigrants to deal with low land fertility and involving the government to resolve transmigrant land disputes with corporations, (e) involving community leaders in the application of technological innovations, as well as assisting in bridging cooperation with related parties for capital and market access, and (f) increasing the number and competence of extension educators, increasing the frequency of participatory extension activities that pay attention to learning materials in accordance with the problems faced by transmigrants as well as participatory, communicative and dialogical extension methods.

## **6. Recommendations**

Implementing the development strategy of transmigrant self-reliance in farming, requires the involvement of various stakeholders. With regard to the above mentioned recommendations are as follows: (i) to facilitate pioneering franchise cooperation, transmigrant institution with Sembawa Rubber Research Center in Banyuasin Regency South Sumatera, as a producer of superior rubber and palm seeds; so that transmigrants have access to superior seeds; (ii) strengthening the farmers' groups so that the transmigrants get access to subsidized fertilizers; (iii) facilitate the formation of kiosks of agricultural facilities managed by farmer groups, thus facilitating transmigrants to obtain pesticides plants; (iv) continue to develop farmer groups and village counseling posts as a media forum in forwarding information, including information-based communications technology; (v) pioneering the establishment and strengthening of cooperatives in all UPTs, to bridge commodity sales directly to companies that promote cooperation with the principle of mutual benefits.

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