

IS THE SECOND GENERATION OF TRANSMIGRANTS MORE PROSPEROUS? A STUDY OF INTERGENERATIONAL WELFARE IN EX-TRANSMIGRATION SETTLEMENTS

Purpose. *This study aims to analyze: (1) the characteristics of the second generation of transmigrants; (2) the welfare of the second generation compared to the first generation.*

Methodology / approach. *The research setting is two villages in Rimbo Bujang District, Tebo Regency, Jambi Province, Indonesia. The population of this study consists of second-generation transmigrant families over the age of 20 or married. A simple random sampling method determined the sample. The number of samples is 40 respondents for each selected village; the total sample is 80 respondents for the second generation and 80 for the first generation. A descriptive analysis was conducted with the help of single and cross-frequency tables.*

Results. *The welfare of the second generation is improved compared to the first generation. The study found that land fragmentation occurred in transmigrant families, but this did not cause a decrease in welfare, as there are job opportunities outside the agricultural sector and land fragmentation already within the family. The second generation of transmigrants can take advantage of these job opportunities outside the agricultural sector because their education is better than the first generation.*

Originality / scientific novelty. *The scientific novelty of this research is related to the object of research, namely the welfare of transmigrant descendants. So far, research on transmigration has focused more on the first generation of transmigration and the macro aspects of the transmigration program.*

Practical value / implications. *The government is recommended to facilitate and create a favorable investment climate so that non-agricultural business activities in transmigration villages can develop better. The development of these non-agricultural activities will open up new job opportunities and be able to eliminate the decline in welfare due to the fragmentation of land within the family.*

Key words: *agriculture, family welfare, land fragmentation, transmigration, Indonesia.*

Introduction and review of the literature. As one of Indonesia's population and agricultural-based regional development programs, the transmigration program in Indonesia has been going on for a relatively long time: indeed, it began during the Dutch East Indies colonial period (Lai et al., 2021; Oostindie, 2008; Sulaiman et al., 2019). During this period (1905–1941), the main objective of colonial governance was to reduce the population density of the island of Java and to supply agricultural labor in areas outside of Java. Furthermore, during the Japanese colonial period (1942–1945), transmigration endeavored to forcibly transfer people from Java to other islands in Indonesia to work for Japanese defense purposes (Dahlan, 2014).

After Indonesia gained independence, transmigration's purpose has increasingly expanded to include non-demographic goals: improving living standards, encouraging regional development, balancing population distribution, ensuring equitable development throughout Indonesia, utilizing natural resources and human labor, fostering national unity and integrity, and strengthening national defense and resilience (Tirtosudarmo, 2018). Moreover, according to Ningsih & Najamudin (2021), the implementation of transmigration activities is directed at increasing farming businesses oriented to land-based business patterns – therefore, the leading emerging businesses are those more focused on agriculture and plantations. Consequently, economic development in the transmigration area unit is evidenced by the successful development of the agricultural and plantation sectors.

Numerous achievements have marked the long historical trajectory of transmigration's implementation. Various studies, for example, indicate that the transmigration program has improved transmigrants' welfare and quality of life (Murtisari et al., 2022b). In addition to enhancing well-being of transmigrants, research has found that transmigration contributes to the social, economic, and cultural development of regions (Nova, 2016; Purnamasari, 2021; Rachman & Noviarini, 2018). Conversely, other research by (Junaidi, 2012) suggests that many failures in the transmigration of food crop programs have an impact on emerging low-income groups. As indicated by the findings of a number of earlier studies, the phenomenon of poor transmigrants persists in several areas (Murtisari et al., 2021; Nugroho et al., 2012; Rachman & Noviarini, 2018). The transmigration program has also caused social disturbance or conflict, leading to rejection of the program in several areas (Budianto, 2020; Oktafiani & Yogaswara, 2020; Sarmita, 2014).

Jambi Province is one of the transmigration placement areas in Indonesia. Resettlement to this territory took place before independence in 1940 and continues to this day. Thus, the number of transmigrants settled in Jambi Province has reached 83,641 families (355,221 people), positioning Jambi Province as one of the main areas for settlement of transmigrants in Indonesia (Yulmardi et al., 2018).

In addition, the transmigration program's success in Jambi Province is observable in various social and economic aspects. Still, one should note that the transmigration program only prepares land for one generation (2–3 ha per household). Currently, however, the transmigrants in Jambi Province already have a second and even third generation (descendants of transmigrants who are adults and have separate families). Suppose the descendants of transmigrants are still in the transmigration location with a livelihood dependent on the land of the first generation (parents who become transmigrants). In that case, it will undoubtedly impact the division of land in the family (Junaidi, 2022; Yulmardi et al., 2020). Therefore, land fragmentation or shrinking agricultural land ownership has reduced the scale of farmers' businesses (Umyati et al., 2022); moreover, land fragmentation increases production costs and decreases yields, revenue, profitability, and efficiency. As a result, land fragmentation contributes to relatively low rural household living

standards (Ali et al., 2019; Sui et al., 2022; Tran & Vu, 2019; Van Phan & O'Brien, 2022).

Because the transmigration settlement in this province has been going on for years, even decades, the issue that requires urgent attention is the survival of the descendants of the second-generation transmigrants. Hence, it is necessary to find appropriate policies to develop the second generation of transmigration in the future, which is even more pressing due to how the problem relates to an objective of the transmigration program's implementation: to improve the welfare of transmigrants and their families, including their descendants. Based on the discussion above, the research question in this study is, "Is the second generation of transmigrants more prosperous than the first generation of transmigrants?"

This research is scientifically new and original as it relates to the research object, the welfare of transmigrant descendants. So far, various studies related to transmigration have focused more on the transmigrants themselves (the first generation) with aspects such as (1) identity, local community, acculturation, assimilation, multiculturalism, ethnicity, culture, and indigenous people (Burton, 2004; De Haan & Rogaly, 2015; Elmhirst, 2001; Evers & Gerke, 1992; Hoshour, 1997; Lai et al., 2021; Lee, 2010; Meda, 2017; Nergaard, 2020; Sutrisno et al., 2020; Warganegara & Waley, 2022), (2) shifting cultivation, multiple cropping, agriculture activities (Dewi & Mendoza, 2006; Holden et al., 1995; Widiatmaka et al., 2019; Widyatmoko & Dewi, 2019), or (3) family livelihoods, family life cycle, employment opportunities, and transmigrant welfare (Dawson, 2008; Leinbach & Smith, 1994; Murtisari et al., 2022a, 2022b; Ochiai et al., 2018; Oktafiani & Yogaswara, 2020; Watkins et al., 1993).

In addition, many studies of transmigration have been conducted at a macro level covering aspects such as (1) land use, land clearing, environmental degradation, deforestation, and forest conversion (Burbridge et al., 1981; Hanson, 2019; Holden et al., 1995; Leinbach & Smith, 1994; O'Connor, 2003; Ross, 1985; Suwardjo, 1986; Whitten, 1987); (2) history, migration processes, and resettlement issues, or transmigration planning and programs (Dawson, 1994; Evers & Gerke, 1992; Hanson, 2019; Hoshour, 1997; Linn, 2015; Simpson, 2021; Zaman, 2021); or (3) nationalism, regional economy, regional development, state development, transnational migration (Evers & Gerke, 1992; Hoshour, 1997; Korwa et al., 2021; Ma Mung, 2012; Potter, 2012; Purwaningsih et al., 2019).

Few research objects related directly to the second generation of transmigrants, and the literature does not contain definitive studies of their welfare. However, some (Gowricharn, 2009; Haikkola, 2011; Pratiwi et al., 2022) have linked the second generation of transmigrants with transnational and cultural aspects. Many studies have also been done on socio-economic conditions and livelihood strategies for the offspring of transmigrants. However, they (second-generation transmigrants) were discussed individually (or compared to non-migrants) instead of being compared to their parents (Maftuchin et al., 2019; Pratiwi et al., 2022; Siahaan, 2016).

The purpose of the article. This study aims to analyze: (1) the characteristics of

the second generation of transmigrants and (2) the welfare of the second generation compared to the first generation.

Material and methods. The research was conducted in two villages in Rimbo Bujang District, Tebo Regency, Jambi Province. Rimbo Bujang District was chosen because the district was the first transmigration area in Tebo Regency. Of the 10 villages in this district, two villages were designated as research locations: Desa Perintis (Perintis Village) in the district's western part and Desa Rimbo Mulyo (Rimbo Mulyo Village) in the eastern part of the district.

The target population in this study were all transmigrant families in the selected villages who already had a second generation over age 20 or were married. At the beginning of the transmigration settlement (1975), the number of families settled in the two villages was 500 families in each village. However, at this time, there was no data on the number of first-generation transmigrants in each village according to the target population criteria. Therefore, to obtain the data, an initial survey was carried out. Based on the initial survey, the total population was 397 families in Perintis Village and 380 families in Rimbo Mulyo Village.

The number of samples was set at 40 families for each selected village, so the total sample was 80 respondents for the second generation and 80 respondents for the first generation. It met the requirements according to Gay & Diehl (1992). They suggested that the minimum sample for descriptive research is 10 %. Likewise, as stated by Yount (2006), the minimum sample for a population between 101–1000 is 10 %.

The sample is determined by simple random sampling. It is based on the sample base of this research, which is the relatively homogeneous first generation.

The analysis was carried out descriptively with the help of single and cross-frequency tables. The analysis concerns the characteristics and socio-economic conditions of the transmigrants' second generation and compares the welfare of the first and second generations of transmigrants.

Results and discussion. This section analyzes the second generation of transmigrants' demographic, educational, and employment characteristics. It also contains an analysis of the welfare of the second generation of transmigrants compared to the first generation.

Characteristics of the Second Generation of Transmigrants. The features of the second generation analyzed in this case cover demography, education, and employment. Table 1 indicates the demographic characteristics of the second generation of transmigrants.

Age has a direct or indirect effect on behavior and individual decision-making patterns. The average age of the second generation is 42.05 years, with most of the group aged 40–49 years (60.00 %). In other words, the second generation of transmigrants is currently in their productive ages.

Based on gender, more than two-thirds (68.75 %) of respondents are male, and the remaining 31.25 % are female. Furthermore, based on marital status, most (93.75 %) are married, and 6.25 % are divorced.

Table 1

Demographic characteristics of second-generation transmigrants

Demographic characteristics	Frequency	Percentage
Age		
20–29	7	8.75
30–39	15	18.75
40–49	48	60.00
50–59	10	12.50
Total	80	100.00
Average age (years)	42.05	
Gender		
Male	55	68.75
Female	25	31.25
Total	80	100.00
Marital status		
Marry	75	93.75
Divorced	5	6.25
Total	80	100.00

Source: authors' calculations.

The second generation's education is generally better than their parents – the initial transmigration from their area of origin, Java. Table 2 compares the education levels of first and second generations.

Table 2

Comparison of education levels of first- and second-generation transmigrants

Indicator	First generation	Second generation
Not completed in primary school	51 (63.75)	4 (5.00)
Elementary school	24 (30.00)	8 (10.00)
Junior high school	3 (3.75)	25 (31.25)
High school	2 (2.50)	25 (31.25)
Diploma I–III	0 (0.00)	2 (2.50)
Diploma IV/Bachelor	0 (0.00)	11 (13.75)
Master/Doctor	0 (0.00)	5 (6.25)
Total	80 (100.00 %)	80 (100.00 %)

Source: authors' calculations.

As illustrated in the table, the higher an individuals' education level, the higher their ability to make decisions using various existing resources to increase income (Neumann et al., 2021). More than half (53.75 %) of the second generation has a high school education and above. In addition, 6.25 % have a master's or doctoral education. Conversely, most (63.75 %) of the first generation have no education –

only 2.50 % of the first generation has a high school education, and no first-generation participant in the sample has beyond a high school education (diploma I through doctoral level). Previous researchers, such as Pratiwi et al. (2022) in Lampung and Fitriani & Khairulyadi (2019) in Aceh, also identified this trend of higher education level of the second-generation transmigrants compared to their parents.

Better educational attainment in the second generation is primarily due to the Indonesian government's expanding access to education. However, the second generation's achievements far exceed the educational attainment of the total population in the Tebo District. In 2022, the proportion of the population over age 15 with a high school education level and above will only reach 31.71 % (BPS, 2022).

Children's education correlates with the income of their parents. Children with parents who earn more are more likely to gain a high education, have more skills, and be invested before participating in the labor market (Bai et al., 2021; Syakoer, 2022). The first generation's financial capacity demonstrates levels of household economic resources; these, in turn, determine the ability of the first generation to provide access to education and a better standard of living for the second generation. So that variations in the level of economic resources of the first generation determine the transmission of educational attainment to the next generation (Dong et al., 2019; Huang, 2013).

In this case, the educational level of the second generation correlates with the income of their parents – the first generation. Families of the first generation benefit via income transfer and higher resources; as a result, the second generation often has higher educational attainment than the first generation (Thaning, 2021). Similarly, Koeniger & Zanella (2022) found that education-related spending depends on human capital investment made by first-generation parents based on their background, affecting the outcomes experienced by second-generation children.

In addition to the two aspects above, this study recorded observations on the second generation's employment aspects, including the field of business, type of work, job status, side work, and working hours per week. Table 3 outlines the employment aspects of second generation of transmigrants.

Unlike the first generation, the business areas of the second generation are more developed and varied. Although the agricultural sector still dominates among the second generation's professions, more than a third already work in non-agricultural sectors, such as industry and services. This finding aligns with the results of Pratiwi et al. (2022) and Siahaan (2016), which reveal that one of the livelihood strategies of transmigrant descendants is to combine work from agricultural and non-agricultural sectors. There are three reasons related to this, outlined below.

The first reason for this shift concerns land ownership and the area of agricultural land owned. Among the second generation of transmigrants, land ownership and the amount owned is relatively limited compared to the first generation. For example, Table 4 indicates that 93.75 % of the first generation still owns agricultural land, with an average area of 2.36 ha. By contrast, only 65 % of the

second generation own agricultural land, with a smaller average area of 1.13 ha. This finding aligns with several previous studies, such as Xu et al. (2022) & Yan et al. (2021) in China, Mengistu (2022) in Ethiopia, Kamwi et al. (2018) in Namibia, Barati et al. (2022) in Iran, Iqbal et al. (2021) in Pakistan. Land fragmentation and limited land ownership are positively correlated with the choice of livelihood strategies for rural communities, one of which is through employment outside the agricultural sector.

Table 3

Employment characteristics of the second generation of transmigrants

Employment characteristics	Frequency	Percentage
Main industry		
Agriculture	54	67.50
Industry	9	11.25
Services	17	21.25
Total	80	100.00
Employment type		
Skilled workers	7	8.75
Semi-skilled workers	66	82.50
Blue-collar workers	7	8.75
Total	80	100.00
Employment status		
Informal workers	66	82.50
Formal workers	14	17.50
Total	80	100.00
Side job		
Have a side job	34	42.50
Don't have a side job	46	57.50
Total	80	100.00
Working hours per week		
< 35	15	18.75
35–40	25	31.25
> 40	40	50.00
Total	80	100.00

Source: authors' calculations.

The second reason concerns the productivity and labor income in the agricultural sector in Indonesia. It is relatively lower than the non-agricultural sector as it is a common condition in developing countries (including Indonesia) (Caselli, 2005; Diao et al., 2018; Restuccia et al., 2008). That condition has encouraged second-generation transmigrants to combine work in agricultural and non-agricultural sectors or switch to agriculture.

A third reason why the second generation focused on non-agricultural sectors is the growth of economic activity outside agriculture. Therefore, establishing growth centers – gathering places for activities that can drive economic growth and have vertical and horizontal production links formed by transmigration – has considerable potential for further development.

Regarding the type of work each generation does, only 8.75 % of the second

generation are categorized as unskilled workers. Instead, most (82.50 %) fall into the category of semi-skilled workers, with 8.75 % qualifying as skilled workers. In addition, regarding employment status, while most (82.50 %) are still informal (or untaxed and unmonitored by the government) sector workers, around 17.50 % of the second generation are already categorized as formal sector workers. This condition is possible both due to the second generation of transmigrants' attainment of higher education levels and the development of non-agricultural job opportunities in the destination to which their parents migrated.

Table 4

Comparison of agricultural land ownership by the first and second generations of transmigrants

Indicator	First generation	Second generation
Agricultural land ownership, %	93.75	65.00
The average area of agricultural land owned, ha	2.36	1.13

Source: authors' calculations.

Adding to the above context, 42.50 % of the second generation have a side job. This proportion, associated with the dominance of employment in the agricultural sector, indicates that income from employment in the agricultural sector is deemed insufficient to meet the needs of the second generation. The results of this study are consistent with previous findings (Junaidi et al., 2022), which suggest that rural communities' strategy for increasing incomes is to find side jobs.

According to Biczkowski et al. (2021) & Tefera (2009), job diversification in rural areas is only possible if natural resource diversity provides the foundation for new livelihood platforms. Still, jobs in the agricultural sector – especially in oil palm plantations – do not require long working hours, so the second generation uses their time to work on other side jobs to increase their income. This results in the total working hours of the second generation, or their main work plus side work, being relatively long. Half of the second generation work above average – or more than 40 hours a week, and 18.75% work below normal – or less than 35 hours a week.

Welfare Analysis of the Second Generation of Transmigrants. The analysis of the welfare of the second generation and its comparison with the first generation of transmigrants is based on several indicators, including housing quality, motor vehicle ownership, and savings. At the family level, housing quality, such as the house size, floor type, and wall type, are objective indicators of a family's welfare (Alabshar et al., 2020). Previous studies have demonstrated a strong relationship between housing quality and family welfare (Angrist, 1974). Housing quality can be a determinant and a component of family welfare (Evans et al., 2003). On the other hand, housing quality also impacts family welfare (Angrist, 1974).

Inadequate housing conditions are often associated with and become an indicator of the poverty characteristics of a family (Decancq et al., 2019; Moonansingh et al., 2019; Pham et al., 2020; Smits & Steendijk, 2015; Wong & Chan, 2019; Yang et al., 2019).

Table 5 compares housing quality between first- and second-generation

transmigrants.

Table 5

Comparison of housing quality for first- and second-generation transmigrants

Indicator	First generation		Second generation	
	Frequency	Percentage	Frequency	Percentage
Average floor area (M2)	28.76		23.41	
Floor-type				
Soil	6	7.50	5	6.25
Cement	60	75.00	42	52.50
Ceramic	14	17.50	33	41.25
Total	80	100.00	80	100.00
Wall type				
Board	34	42.50	21	26.25
Brick	46	57.50	59	73.75
Total	80	100.00	80	100.00
Roof type				
Zinc	33	41.25	21	26.25
Roof tile	47	58.75	58	72.50
Total	80	100.00	80	100.00

Source: authors' calculations.

Floor area is one of the indicators used to determine housing conditions (Clair, 2019). Measuring the floor area per capita is achievable by comparing the overall floor area with the number of household members as residents. The household can meet the requirements for proper housing conditions with a specific floor area.

The floor area per capita of the house occupied by the second generation is 23.41 m². This figure is lower than the floor area per capita of the first-generation household, which is 28.76 m². The smaller per capita floor area of the houses occupied by the first generation is due to the increasingly narrow land available in ex-transmigration settlement areas. However, in general, the floor area per capita in both the first and second generations is already above the minimum adequacy of 15 m² per capita (Millward-Hopkins et al., 2020).

Although the average floor area of the houses occupied by the second generation is narrower, in terms of the quality/condition of their houses, they are better than the first generation. Of the total sampled houses of the second generation, 41.25 % have tiled floors, while for the first generation, only 17.50 %. The better socio-economic conditions of transmigrants also impact the type of house walls they have. Only 26.25 % of the houses owned by the second generation are made of boards, and most (73.75 %) are made of bricks. In contrast, about 42.50 % of the houses owned by the first generation are constructed with boards, and only approximately 57.50 % use bricks as the primary material. The type of floor is directly depends on the well-being of the family, especially on the health of the residents (Padmonobo et al., 2013).

In addition, tile roofs are economically more valuable and high-quality than zinc roofs. For example, tile roofing on houses is observed to ensure a comfortable and beautified housing style. Among the first generation, tile was the most popular roof material: the number of respondents used tile was 58.75 %, and the rest (41.25 %)

used zinc. The same situation also occurs in the second generation, who often chooses tile roofs. However, the gap between zinc and tile roofing for second-generation transmigrants is much wider: 73.75 % versus 26.25 % for tile and zinc roofs, respectively.

Homeownership feasibility is often associated with a person's level of welfare and the classification of a household into marginal household groups. Second-generation children who experience the poor household conditions of first-generation parents risk declining welfare regarding education, employment, and income potential. By contrast, if good first-generation household conditions support the second generation, the potential of human resources in the second generation will increase so that they can live more prosperously than their parents (Bubonya & Cobb-Clark, 2021).

Improvements in the quality of second-generation housing are inseparable from the ease of obtaining credit at this time to buy or build houses or buy durable goods. However, the ability to obtain credit and make credit repayments also depends on the better financial capabilities of second generation than the first generation of transmigrants.

Aside from serving as a means of transportation, motorcycles, and cars are also household assets (Saleem et al., 2022). Therefore, the level of household welfare can be measured using a measure of household asset ownership in durable goods (Smits & Steendijk, 2015). Table 6 compares motor vehicle ownership between first- and second-generation transmigrants.

Table 6

Comparison of ownership of motorized vehicles for the first- and second-generation transmigrants

Motorized vehicle	First generation		Second generation	
	Frequency	Percentage	Frequency	Percentage
Motorcycle				
Do not have	33	41.25	3	3.75
Have one motorcycle	26	32.50	29	36.25
Have more than a motorcycle	21	26.25	48	60.00
Total	80	100.00	80	100.00
Car				
Do not have	76	95.00	59	73.75
Have one car	4	5.00	21	26.25
Total	80	100.00	80	100.00

Source: authors' calculations.

Ownership of this motorcycle is much more in the second generation than in the first generation. On the one hand, only 3.75 % of the second generation do not own a motorcycle; even 60.00 % of the first generation own more than one motorcycle. On the other hand, almost half (41.25 %) of the first generation does not own a motorcycle.

In addition, cars are a means of transportation classified as a luxury among the community; more than a quarter (26.25 %) of the second generation already own a

car. This proportion is much higher than the first generation's car ownership, only 5.00 %.

The level of household welfare can also be measured by using a household's ownership of durable goods (Puspitawati, 2013; Smith & Steendijk, 2015). Households that have assets at high prices are considered more prosperous than households that do not. In the context of asset ownership, motorbike and car ownership is one indicator used in measuring levels of family material well-being in the International Wealth Index (IWI) (Smits & Steendijk, 2015)

The next aspect analyzed is the economic aspect, specifically savings. Savings is one economic parameter representing the welfare household (Iorember, 2020; Tan et al., 2022). The size of the savings is primarily determined by how much income transmigrants receive.

The savings of first and second generations are kept in banks, cooperatives, or at home. The average savings owned by the first generation amounts to IDR 1,756,450. Conversely, the second generation's current average savings is IDR 1,895,215. The savings' distribution (%) of first generation and second generation is illustrated in Figure 1.

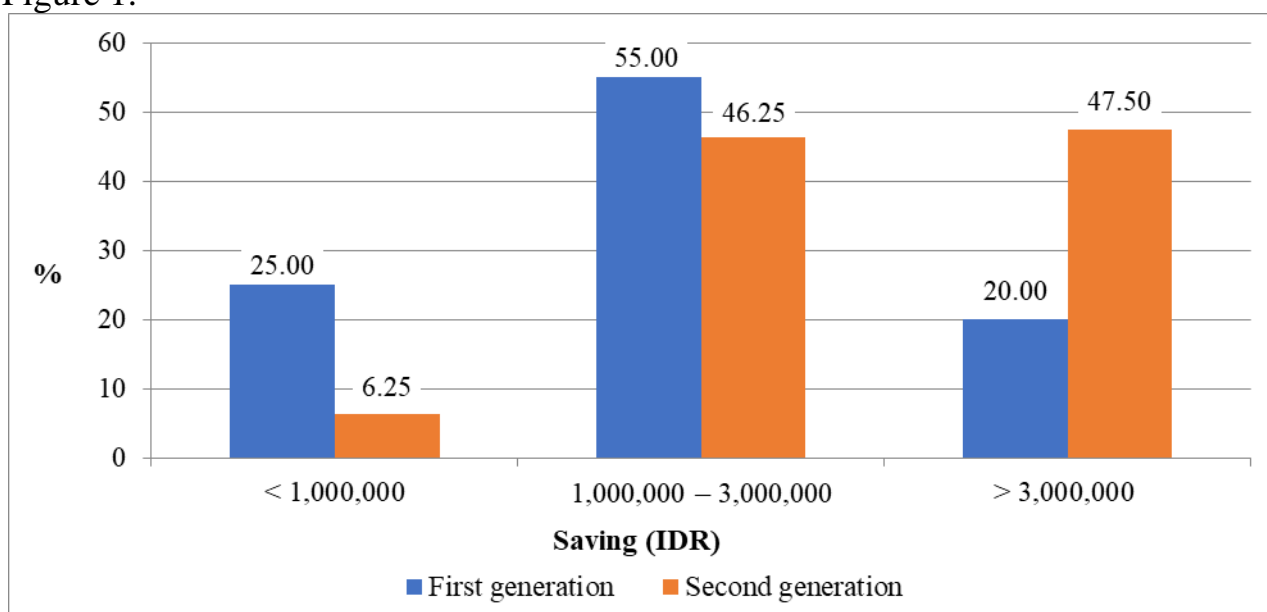


Figure 1. Comparison of savings of the first- and second-generation transmigrants

Source: authors' calculations.

Most of those sampled in the first generation (55.00 %) have a total savings of between IDR 1,000,000–3,000,000, which amounts to moderate savings. Only 20.00 % have savings above IDR 3,000,000 or a high savings total. Regarding the second generation, the current average of their savings is IDR 1,895,215. The largest savings rate in this generation (47.50 %) has a total savings of more than IDR 3,000,000, it is a high amount. Meanwhile, only 6.25 % have savings below IDR 1,000,000.

The larger average saving rate of second-generation transmigrants implies two critical things. First, the income of the second generation is higher than that of the

first generation. Second, a higher awareness of saving was observed in the second generation compared to the first generation, perhaps due to level of higher education of the second generation. Better education and income in the second generation are also found in the research findings of Matfuchin et al. (2019). Better conditions of education and income for the second generation are not only found in cases related to transmigration, but also in migration in general. This is supported by several previous studies regarding migrants' second generation (Alexander et al., 2017; Elk et al., 2019; Ivlevs & King, 2012; Jiang, 2022).

Conclusions. The transmigration program in Indonesia has been going on for a long time. This program has successfully improved transmigrants' welfare and regional development in the destination areas. However, the transmigration program only prepares the land for one generation. If the second generation of transmigrants remains in the transmigration location, and their livelihoods depend on the land of the first generation, this can affect the fragmentation of land within the family; in addition, new areas of poverty may emerge.

The study found that land fragmentation did occur in transmigrant families, but this did not cause a decrease in welfare. The welfare of the second generation turned out to be better than the first generation. It is because there are also job opportunities outside the agricultural sector and land fragmentation within the family. The second generation of transmigrants can take advantage of these job opportunities outside the agricultural sector because their education is better than the first generation.

The main findings of this study can serve as a starting point for the government to improve household welfare sustainability in transmigration villages. The government is advised to facilitate and build a conducive investment climate so that non-agricultural business activities in transmigration villages can develop better. The development of these non-agricultural activities will generate new job opportunities and eliminate the decline in welfare from land fragmentation within families.

The increase in non-agricultural activities should also aim at industries based on the processing of agricultural products. Thus, the development of non-agricultural activities will also increase the demand for and selling prices of agricultural products and, in the next stage, will increase the welfare of farmers.

Research limitations. This research considers two transmigration patterns based on the primary agricultural commodities: the plantation and food crop patterns. Transmigrants in these two patterns have different characteristics.

This study has limitations related to its area of research. For example, the study only covers ex-transmigration areas with plantation patterns and does not compare them with those with food crop patterns.

For future research, this study suggests examining the pattern of land inheritance from transmigrants (first generation) to their descendants (second generation of transmigrants). In addition, this study also suggests examining the transmission of welfare between generations that occurs in ex-transmigration locations.

Acknowledgments. We want to thank Master's Program in Economics, Faculty of Economics and Business, Universitas Jambi, for providing us with research funds

through the 2020 *Skema Penelitian Terapan Unggulan* (Excellence Applied Research Scheme) with the contract number 563/UN21.18/PG/SPK/2020 dated April 20, 2020.

References

1. Alabshar, N., Giyarsih, S. R., & Pitoyo, A. J. (2020). Analisis kesejahteraan migran di Indonesia. *Jurnal Litbang Sukowati: Media Penelitian Dan Pengembangan*, 5(1), 1–10. <https://doi.org/10.32630/sukowati.v5i1.165>.
2. Alexander, J. T., Leibbrand, C., Massey, C., & Tolnay, S. (2017). Second-generation outcomes of the great migration. *Demography*, 54(6), 2249–2271. <https://doi.org/10.1007/s13524-017-0625-8>.
3. Ali, D. A., Deininger, K., & Ronchi, L. (2019). Costs and benefits of land fragmentation: evidence from Rwanda. *The World Bank Economic Review*, 33(3), 750–771. <https://doi.org/10.1093/wber/lhx019>.
4. Angrist, S. S. (1974). Dimensions of well-being in public housing families. *Environment and Behavior*, 6(4), 495–516. <https://doi.org/10.1177/001391657400600404>.
5. Bai, Y., Zhang, L., Sun, M., & Xu, X. (2021). Status and path of intergenerational transmission of poverty in rural China: a human capital investment perspective. *Journal of Integrative Agriculture*, 20(4), 1080–1091. [https://doi.org/10.1016/S2095-3119\(20\)63373-1](https://doi.org/10.1016/S2095-3119(20)63373-1).
6. Barati, A. A., Zhoolideh, M., Moradi, M., Sohrabi Mollayousef, E., & Fürst, C. (2022). Multidimensional poverty and livelihood strategies in rural Iran. *Environment, Development and Sustainability*, 24(11), 12963–12993. <https://doi.org/10.1007/s10668-021-01977-x>.
7. Biczkowski, M., Jezierska-Thöle, A., & Rudnicki, R. (2021). The impact of RDP measures on the diversification of agriculture and rural development – seeking additional livelihoods: the case of Poland. *Agriculture*, 11(3), 253. <https://doi.org/10.3390/agriculture11030253>.
8. BPS (2022). *Statistik Kesejahteraan Rakyat Provinsi Jambi 2022*. Available at: <https://jambi.bps.go.id/publication/2022/12/28/c7de6f13e535ff61ab481eb0/statistik-kesejahteraan-rakyat-provinsi-jambi-2022.html>.
9. Bubonya, M., & Cobb-Clark, D. A. (2021). Pathways of disadvantage: unpacking the intergenerational correlation in welfare. *Economics of Education Review*, 80, 102066. <https://doi.org/10.1016/j.econedurev.2020.102066>.
10. Budianto, A. (2020). Ketegangan sosial di Lampung Akibat program transmigrasi di era 1950an. *Jurnal CANDI*, 20(1), 18–31. Available at: <https://jurnal.uns.ac.id/candi/article/view/41327>.
11. Burbidge, P., Dixon, J. A., & Soewardi, B. (1981). Land allocation for transmigration. *Bulletin of Indonesian Economic Studies*, 17(1), 108–113. <https://doi.org/10.1080/00074918112331333949>.
12. Burton, B. (2004). The transmigration of rights: women, movement and the grassroots in Latin American and Caribbean communities. *Development and Change*, 35(4), 773–798. <https://doi.org/10.1111/j.0012-155X.2004.00379.x>.

13. Caselli, F. (2005). Chapter 9 accounting for cross-country income differences. In P. Aghion, S. N. Durlauf (Eds.), *Handbook of Economic Growth*, vol. 1, part A (pp. 679–741). Elsevier. [https://doi.org/10.1016/S1574-0684\(05\)01009-9](https://doi.org/10.1016/S1574-0684(05)01009-9).

14. Clair, A. (2019). Housing: an under-explored influence on children's well-being and becoming. *Child Indicators Research*, 12(2), 609–626. <https://doi.org/10.1007/s12187-018-9550-7>.

15. Dahlan, M. H. (2014). Perpindahan penduduk dalam tiga masa: kolonisasi, kokuminggakari, dan transmigrasi di provinsi Lampung (1905–1979). *Patanjala: Jurnal Penelitian Sejarah Dan Budaya*, 6(3), 335. <https://doi.org/10.30959/patanjala.v6i3.164>.

16. Dawson, G. (1994). Development planning for women. *Women's Studies International Forum*, 17(1), 69–81. [https://doi.org/10.1016/0277-5395\(94\)90008-6](https://doi.org/10.1016/0277-5395(94)90008-6).

17. Dawson, G. (2008). Women and work in Indonesia. In M. Ford, L. Parker (Eds.), *Women and Work in Indonesia*. London, Routledge. <https://doi.org/10.4324/9780203932360>.

18. De Haan, A., & Rogaly, B. (2015). Labour mobility and rural society. In A. de Haan, B. Rogaly (Eds.), *Labour Mobility and Rural Society*. London, Routledge. <https://doi.org/10.4324/9781315827827>.

19. Decancq, K., Fleurbaey, M., & Maniquet, F. (2019). Multidimensional poverty measurement with individual preferences. *The Journal of Economic Inequality*, 17(1), 29–49. <https://doi.org/10.1007/s10888-019-09407-9>.

20. Dewi, D. O., & Mendoza, T. C. (2006). Productivity, profitability and efficiency of diversified rice-based farming systems in the transmigration villages of Rasau Jaya District in West Kalimantan, Indonesia. *Philippine Agricultural Scientist*, 89(3), 238–248. Available at: <https://agris.fao.org/agris-search/search.do?recordID=PH2009000023>.

21. Diao, X., McMillan, M., & Wangwe, S. (2018). Agricultural labour productivity and industrialisation: lessons for Africa. *Journal of African Economies*, 27(1), 28–65. <https://doi.org/10.1093/jae/ejx034>.

22. Dong, Y., Luo, R., Zhang, L., Liu, C., & Bai, Y. (2019). Intergenerational transmission of education: the case of rural China. *China Economic Review*, 53, 311–323. <https://doi.org/10.1016/j.chieco.2018.09.011>.

23. Elk, R. van, Jongen, E. L. W., & Koot, P. (2019). Income differences across migrant groups in the Netherlands: an intergenerational perspective. Leiden University. Available at: <https://hdl.handle.net/1887/86151>.

24. Elmhirst, R. (2001). Resource struggles and the politics of place in North Lampung, Indonesia. *Singapore Journal of Tropical Geography*, 22(3), 284–306. <https://doi.org/10.1111/1467-9493.00111>.

25. Evans, G. W., Wells, N. M., & Moch, A. (2003). Housing and mental health: a review of the evidence and a methodological and conceptual critique. *Journal of Social Issues*, 59(3), 475–500. <https://doi.org/10.1111/1540-4560.00074>.

26. Evers, H.-D., & Gerke, S. (1992). The culture of planning: transmigration

area development in East Kalimantan, Indonesia. *International Sociology*, 7(2), 141–151. <https://doi.org/10.1177/026858092007002002>.

27. Fitriani, R., & Khairulyadi, K. (2019). Mobilitas sosial pada keluarga transmigrasi (studi deskriptif kuantitatif di kecamatan Singkohor Kabupaten Aceh Singkil). *Jurnal Ilmiah Mahasiswa*, 4(2). Available at: <http://www.jim.unsyiah.ac.id/FISIP/article/view/10693>.

28. Gay, L. R., & Diehl, P. L. (1992). *Research Methods for Business and Management*. New York, MacMillan Publishing Company.

29. Gowricharn, R. (2009). Changing forms of transnationalism. *Ethnic and Racial Studies*, 32(9), 1619–1638. <https://doi.org/10.1080/01419870902853232>.

30. Haikkola, L. (2011). Making connections: second-generation children and the transnational field of relations. *Journal of Ethnic and Migration Studies*, 37(8), 1201–1217. <https://doi.org/10.1080/1369183X.2011.590925>.

31. Hanson, A. J. (2019). Transmigration and marginal land development. In G. E. Hansen (Ed.), *Agricultural and Rural Development in Indonesia* (pp. 219–235). London, Routledge. <https://doi.org/10.4324/9780429048364-18>.

32. Holden, S., Hvoslef, H., & Simanjuntak, R. (1995). Transmigration settlements in Seberida, Sumatra: deterioration of farming systems in a rain forest environment. *Agricultural Systems*, 49(3), 237–258. [https://doi.org/10.1016/0308-521X\(94\)00046-T](https://doi.org/10.1016/0308-521X(94)00046-T).

33. Hoshour, C. A. (1997). Resettlement and the politicization of ethnicity in Indonesia. *Bijdragen tot de taal-, land- en volkenkunde*, 153(4), 557–576. <https://doi.org/10.1163/22134379-90003915>.

34. Huang, J. (2013). Intergenerational transmission of educational attainment: the role of household assets. *Economics of Education Review*, 33, 112–123. <https://doi.org/10.1016/j.econedurev.2012.09.013>.

35. Iorember, P. T. (2020). Domestic demand-led growth and household welfare in Nigeria: a computable general equilibrium approach. *Journal of Economics and Allied Research*, 4(2), 1–12. <https://jearecons.com/index.php/jearecons/article/view/67>.

36. Iqbal, M. A., Rizwan, M., Abbas, A., Makhdam, M. S. A., Kousar, R., Nazam, M., Samie, A., & Nadeem, N. (2021). A quest for livelihood sustainability? Patterns, motives and determinants of non-farm income diversification among agricultural households in Punjab, Pakistan. *Sustainability*, 13(16), 9084. <https://doi.org/10.3390/su13169084>.

37. Ivlevs, A., & King, R. M. (2012). Family migration capital and migration intentions. *Journal of Family and Economic Issues*, 33(1), 118–129. <https://doi.org/10.1007/s10834-011-9269-9>.

38. Jiang, W. (2022). *The Relationship Between Migrants, Education, and Income in the EU*. Undergraduate Theses and Capstone Projects 27. Available at: <https://dc.suffolk.edu/undergrad/27>.

39. Junaidi, J. (2012). *Perkembangan desa-desa eks transmigrasi dan interaksi dengan wilayah sekitarnya serta kebijakan ke depan (kajian di Provinsi Jambi)* (PhD

thesis). Insitut Pertanian Bogor. Available at:
<https://repository.ipb.ac.id/handle/123456789/58350>.

40. Junaidi, J. (2022). Transmigration in Jambi Province from the perspective of regional policymakers. *Jambura Agribusiness Journal*, 4(1), 13–22. Available at: <https://ejurnal.ung.ac.id/index.php/jaj/article/view/15429>.

41. Junaidi, J., Amril, A., & Hernando, R. (2022). Economic coping strategies and food security in poor rural households. *Agricultural and Resource Economics*, 8(1), 30–51. <https://doi.org/10.51599/are.2022.08.01.02>.

42. Kamwi, J. M., Chirwa, P., Graz, F., Manda, S., Mosimane, A., & Kätsch, C. (2018). Livelihood activities and skills in rural areas of the Zambezi region, Namibia: implications for policy and poverty reduction. *African Journal of Food, Agriculture, Nutrition and Development*, 18(01), 13074–13094. <https://doi.org/10.18697/ajfand.81.16640>.

43. Koeniger, W., & Zanella, C. (2022). Opportunity and inequality across generations. *Journal of Public Economics*, 208, 104623. <https://doi.org/10.1016/j.jpubeco.2022.104623>.

44. Korwa, J. R. V., Metherall, N., Rumabar, B., Mampioer, J. H., & Ranathunga, T. (2021). Peri-urbanisation in Papua: a participatory and geospatial impact assessment of peri-urban development and transmigration in Port Numbay. *Asia & the Pacific Policy Studies*, 8(1), 129–150. <https://doi.org/10.1002/app5.322>.

45. Lai, J. Y., Hamilton, A., & Staddon, S. (2021). Transmigrants experiences of recognitional (in)justice in Indonesia's environmental impact assessment. *Society & Natural Resources*, 34(8), 1056–1074. <https://doi.org/10.1080/08941920.2021.1942350>.

46. Lee, H.-C. (2010). Reformation of taiwanese indigenoussness and transmigration to China. *Alternatives: Global, Local, Political*, 35(3), 241–258. <https://doi.org/10.1177/030437541003500304>.

47. Leinbach, T. R., & Smith, A. (1994). Off-farm employment, land, and life cycle: transmigrant households in South Sumatra, Indonesia. *Economic Geography*, 70(3), 273. <https://doi.org/10.2307/143994>.

48. Linn, A. R. (2015). From Voss to New York. Norwegian transmigration to America and the use of virtual worlds in historical research. *Historisk Tidsskrift*, 94(2), 229–255. <https://doi.org/10.18261/ISSN1504-2944-2015-02-04>.

49. Ma Mung, E. (2012). Migrations et transmigrations dans la diaspora entrepreneuriale chinoise. *Multitudes*, 49(2), 53–61. <https://doi.org/10.3917/mult.049.0053>.

50. Maftuchin, M., Imron, A., & Arif, S. (2019). Karakteristik kondisi keluarga masyarakat keturunan transmigrasi di desa Margorejo Kecamatan Jati Agung Kabupaten Lampung selatan. *Jurnal Pendidikan dan Penelitian Sejarah*, 7(5). Available at: <http://jurnal.fkip.unila.ac.id/index.php/PES/article/view/19778>.

51. Meda, L. (2017). A journey without planned destination: traumatic transmigration experiences of refugee children. *Journal of International Migration and Integration*, 18(1), 131–142. <https://doi.org/10.1007/s12134-016-0477-x>.

52. Mengistu, E. C. (2022). Rural livelihood activities. *International Journal of Social Ecology and Sustainable Development*, 13(1), 1–17. <https://doi.org/10.4018/IJSESD.293246>.

53. Millward-Hopkins, J., Steinberger, J. K., Rao, N. D., & Oswald, Y. (2020). Providing decent living with minimum energy: a global scenario. *Global Environmental Change*, 65, 102168. <https://doi.org/10.1016/j.gloenvcha.2020.102168>.

54. Moonansingh, C. A., Wallace, W. C., & Dialsingh, I. (2019). From unidimensional to multidimensional measurement of poverty in Trinidad and Tobago: the latent class analysis of poverty measurement as an alternative to the financial deprivation model. *Poverty & Public Policy*, 11(1–2), 57–72. <https://doi.org/10.1002/pop4.248>.

55. Murtisari, A., Irham, I., Mulyo, J. H., & Waluyati, L. R. (2021). Household poverty analysis of local farmers and transmigrants in Gorontalo district. *1st International Conference on Sustainable Agricultural Socio-Economics, Agribusiness, and Rural Development (ICSASARD 2021)*. <https://doi.org/10.2991/aebmr.k.211214.026>.

56. Murtisari, A., Irham, I., Mulyo, J. H., & Waluyati, L. R. (2022a). Do poor farmers have entrepreneurship skill, intention, and competence? Lessons from transmigration program in rural Gorontalo Province, Indonesia. *Open Agriculture*, 7(1), 794–807. <https://doi.org/10.1515/opag-2022-0131>.

57. Murtisari, A., Irham, I., Mulyo, J. H., & Waluyati, L. R. (2022b). The effects of the transmigration programme on poverty reduction in Indonesia's Gorontalo province: a multidimensional approach. *Economies*, 10(11), 267. <https://doi.org/10.3390/economies10110267>.

58. Nergaard, S. (2020). *Translation and Transmigration*. London, Routledge. <https://doi.org/10.4324/9781003141716>.

59. Neumann, M., Hengeveld, M., Niessen, A. S. M., Tendeiro, J. N., & Meijer, R. R. (2021). Education increases decision-rule use: an investigation of education and incentives to improve decision making. *Journal of Experimental Psychology: Applied*, 28(1), 166–178. <https://doi.org/10.1037/xap0000372>.

60. Ningsih, R. V., & Najamudin, N. (2021). Pengembangan kawasan transmigrasi dalam rangka meningkatkan pembangunan pada dinas transmigrasi dan tenaga kerja. *Journal of Social and Policy Issues*, 1(3), 116–121. Available at: <https://journal.pencerah.org/index.php/jspi/article/view/61>.

61. Nova, Y. (2016). Dampak transmigrasi terhadap kehidupan sosial masyarakat: studi sejarah masyarakat Timpeh Dharmasraya. *Jurnal Ilmu Sosial Mamangan*, 5(1), 23–26. <https://doi.org/10.22202/mamangan.1927>.

62. Nugroho, A. S., Fujimura, M., & Inaoka, T. (2012). Changes in socioeconomic status, community health and environmental conditions of fishermen by transmigration (transmigrasi) in Lampung Timur, Indonesia. *Life Science Journal*, 9(3), 2547–2556. Available at: http://www.lifesciencesite.com/ljsj/life0903/370_10919life0903_2547_2556.pdf.

63. O'Connor, C. M. (2003). Effects of central decisions on local livelihoods in Indonesia: potential synergies between the programs of transmigration and industrial forest conversion. *Population and Environment*, 25(4), 319–333. <https://doi.org/10.1023/B:POEN.0000036483.48822.2f>.

64. Ochiai, C., Laplace Resende, R., & Okazaki, K. (2018). A study on living environment adaptation processes of transmigration community in Indonesia. *Journal of the City Planning Institute of Japan*, 53(3), 365–371. <https://doi.org/10.11361/journalcpij.53.365>.

65. Oktafiani, I., & Yogaswara, H. (2020). Transmigration program can be failed, but transmigrant stay life: portraits of transmigrant families in Sorong Regency, West Papua. *ETNOSIA: Jurnal Etnografi Indonesia*, 5(2), 200–220. <https://doi.org/10.31947/etnosia.v5i2.10723>.

66. Oostindie, G. (Ed.). (2008). *Dutch Colonialism, Migration and Cultural Heritage*. BRILL. <https://doi.org/10.1163/9789004253889>.

67. Padmonobo, H., Setiani, O., & Joko, T. (2013). Hubungan faktor-faktor lingkungan fisik rumah dengan kejadian pneumonia pada balita di wilayah kerja puskesmas Jatibarang Kabupaten Brebes. *Jurnal Kesehatan Lingkungan Indonesia*, 11(2), 194–198. Available at: <https://ejournal.undip.ac.id/index.php/jkli/article/view/5031>.

68. Pham, A. T. Q., Mukhopadhyaya, P., & Vu, H. (2020). Targeting administrative regions for multidimensional poverty alleviation: a study on Vietnam. *Social Indicators Research*, 150(1), 143–189. <https://doi.org/10.1007/s11205-020-02285-z>.

69. Potter, L. (2012). New transmigration ‘paradigm’ in Indonesia: examples from Kalimantan. *Asia Pacific Viewpoint*, 53(3), 272–287. <https://doi.org/10.1111/j.1467-8373.2012.01492.x>.

70. Pratiwi, A., Matous, P., & Martinus, K. (2022). Transmigration programs and migrant positions in rural community knowledge networks. *Journal of Rural Studies*, 95, 391–401. <https://doi.org/10.1016/j.jrurstud.2022.09.019>.

71. Purnamasari, D. (2021). Perkembangan sosial ekonomi masyarakat transmigrasi desa perintis di rimbo bujang tahun 1975–2020. *Kronologi*, 3(3), 54–64. Available at: <http://kronologi.ppj.unp.ac.id/index.php/jk/article/view/207>.

72. Purwaningsih, P., Ayuwat, D., & Cadchumsang, J. (2019). Transmigration policy in the context of autonomy era in East Kalimantan. *Iapa Proceedings Conference*, 650–661 <https://doi.org/10.30589/proceedings.2019.257>.

73. Rachman, C., & Noviarini, T. (2018). Faktor-faktor yang mempengaruhi program transmigrasi terhadap tingkat kesejahteraan penduduk transmigran. *PARAMETER*, 3(1), 51–68. <https://doi.org/10.37751/parameter.v3i1.55>.

74. Restuccia, D., Yang, D. T., & Zhu, X. (2008). Agriculture and aggregate productivity: a quantitative cross-country analysis. *Journal of Monetary Economics*, 55(2), 234–250. <https://doi.org/10.1016/j.jmoneco.2007.11.006>.

75. Ross, M. S. (1985). The development and current status of land clearing for transmigration in Indonesia. *Journal of World Forest Resource Management*, 1(2),

163–176.

76. Saleem, M., Yaseen, M., Riaz, A., & Baloch, G. (2022). Impact of workers' remittances on households' standard of living: a case study of district Kech Balochistan. *Central European Management Journal*, 30(4), 236–244. <https://doi.org/10.57030/23364890.cemj.30.4.20>.

77. Sarmita, I. M. (2014). Potensi konflik di daerah tujuan transmigrasi (kasus Sampit dan Mesuji). *Media Komunikasi Geografi*, 15(1), 45–59. Available at: <https://ejournal.undiksha.ac.id/index.php/MKG/article/view/11422>.

78. Siahaan, N. F. (2016). *Modal sosial dan strategi nafkah rumah tangga keturunan transmigran di Lampung*. Institut Pertanian Bogor. Available at: <https://repository.ipb.ac.id/handle/123456789/81496>.

79. Simpson, B. (2021). Indonesian transmigration and the crisis of development, 1968–1985. *Diplomatic History*, 45(2), 268–284. <https://doi.org/10.1093/dh/dhaa087>.

80. Smits, J., & Steendijk, R. (2015). The International Wealth Index (IWI). *Social Indicators Research*, 122(1), 65–85. <https://doi.org/10.1007/s11205-014-0683-x>.

81. Sui, F., Yang, Y., & Zhao, S. (2022). Labor structure, land fragmentation, and land-use efficiency from the perspective of mediation effect: based on a survey of garlic growers in Lanling, China. *Land*, 11(6), 952. <https://doi.org/10.3390/land11060952>.

82. Sulaiman, A. A., Sulaeman, Y., & Minasny, B. (2019). A framework for the development of wetland for agricultural use in Indonesia. *Resources*, 8(1), 34. <https://doi.org/10.3390/resources8010034>.

83. Sutrisno, H., Hardiman, G., Pandelaki, E. E., & Susi, T. (2020). Acculturation of structure and construction in the houses of balinese migrants (case study: Basarang Jaya Village, Central Kalimantan). *International Journal on Advanced Science, Engineering and Information Technology*, 10(2), 837. <https://doi.org/10.18517/ijaseit.10.2.3772>.

84. Suwardjo, A. (1986). Land development for transmigration areas in Sumatra and Kalimantan (Indonesia). In M. Lal, P. Sanchez, R. Cummings (Eds.), *Land Clearing and Development in the Tropics* (pp. 131–139). Rotterdam.

85. Syakoer, M. (2022). Pengaruh tingkat ekonomi orang tua terhadap jenjang pendidikan anak. *ULIL ALBAB*, 1(3), 522–528. Available at: <https://ulilalbabinstitute.com/index.php/JIM/article/view/140>.

86. Tan, J., Xu, H., & Yu, J. (2022). The effect of homeownership on migrant household savings: evidence from the removal of home purchase restrictions in China. *Economic Modelling*, 106, 105679. <https://doi.org/10.1016/j.econmod.2021.105679>.

87. Tefera, T. L. (2009). Supply response, local reality and livelihood sustainability: the policy dilemma of khat (*Catha edulis*) production in eastern Ethiopia. *International Journal of Agricultural Sustainability*, 7(3), 176–188. <https://doi.org/10.3763/ijas.2009.0428>.

88. Thaning, M. (2021). Resource specificity in intergenerational inequality: the case of education, occupation, and income. *Research in Social Stratification and Mobility*, 75, 100644. <https://doi.org/10.1016/j.rssm.2021.100644>.

89. Tirtosudarmo, R. (2018). Transmigration as an ideological policy. In *The Politics of Migration in Indonesia and Beyond* (pp. 3–28). Singapore, Springer. https://doi.org/10.1007/978-981-10-9032-5_1.

90. Tran, T. Q., & Vu, H. V. (2019). Land fragmentation and household income: First evidence from rural Vietnam. *Land Use Policy*, 89, 104247. <https://doi.org/10.1016/j.landusepol.2019.104247>.

91. Umyati, S., Andayani, S. A., & Ismannudin, I. (2022). Fragmentasi lahan dan tingkat kesejahteraan petani bawang merah: sebuah analisis review. *Jurnal Sosial Ekonomi Pertanian*, 15(1), 77–86. Available at: <https://jurnal.unej.ac.id/index.php/JSEP/article/view/29272>.

92. Van Phan, P., & O'Brien, M. (2022). Is small beautiful? An empirical analysis of land characteristics and rural household income in Vietnam. *Australian Journal of Agricultural and Resource Economics*, 66(3), 561–580. <https://doi.org/10.1111/1467-8489.12476>.

93. Warganegara, A., & Waley, P. (2022). The political legacies of transmigration and the dynamics of ethnic politics: a case study from Lampung, Indonesia. *Asian Ethnicity*, 23(4), 676–696. <https://doi.org/10.1080/14631369.2021.1889356>.

94. Watkins, J. F., Leinbach, T. R., & Falconer, K. F. (1993). Women, family, and work in Indonesian transmigration. *Journal of Developing Areas*, 27(3), 377–398.

95. Whitten, A. J. (1987). Indonesia's transmigration program and its role in the loss of tropical rain forests. *Conservation Biology*, 1(3), 239–246. <https://doi.org/10.1111/j.1523-1739.1987.tb00038.x>.

96. Widiatmaka, Mulya, S. P., Panuju, D. R., Ambarwulan, W., & Hamzah, U. (2019). Multicriteria land index for determining primary commodity in agricultural landuse planning. *IOP Conference Series: Earth and Environmental Science*, 284(1), 012006. <https://doi.org/10.1088/1755-1315/284/1/012006>.

97. Widyatmoko, B., & Dewi, R. (2019). Dynamics of transmigration policy as supporting policy of palm oil plantation development in Indonesia. *Journal of Indonesian Social Sciences and Humanities*, 9(1), 35–55. <https://doi.org/10.14203/jissh.v9i1.139>.

98. Wong, H., & Chan, S. (2019). The impacts of housing factors on deprivation in a world city: the case of Hong Kong. *Social Policy & Administration*, 53(6), 872–888. <https://doi.org/10.1111/spol.12535>.

99. Xu, C., Wang, Q., Fahad, S., Kagatsume, M., & Yu, J. (2022). Impact of off-farm employment on farmland transfer: insight on the mediating role of agricultural production service outsourcing. *Agriculture*, 12(10), 1617. <https://doi.org/10.3390/agriculture12101617>.

100. Yan, X., Wang, Y., Yang, G., Liao, N., & Li, F. (2021). Research on the

scale of agricultural land moderate management and countermeasures based on farm household analysis. *Sustainability*, 13(19), 10591. <https://doi.org/10.3390/su131910591>.

101. Yang, F., Paudel, K., Zhuang, T., & Jiang, Y. (2019). Multidimensional poverty of the ethnic Tibetan farm and herder households in Gansu province, China. *Ciência Rural*, 49(8). <https://doi.org/10.1590/0103-8478cr20180559>.

102. Yount, W. R. (2006). *Research design & statistical analysis in Christian ministry*, 4th ed. W. R. Yount, Fort Worth, Tex.

103. Yulmardi, Y., Amir, A., Erfit, E., & Junaidi, J. (2018). Where is the second generation nowadays? Evidence from former transmigration villages in Jambi Province, Indonesia. *Open Journal of Social Sciences*, 06(04), 282–293. <https://doi.org/10.4236/jss.2018.64024>.

104. Yulmardi, Y., Amir, A., & Junaidi, J. (2020). Household livelihoods strategies of descendants of transmigrants in Jambi Province, Indonesia. *International Journal of Advanced Science and Technology*, 29(3), 6118–6133. Available at: <http://sersec.org/journals/index.php/IJAST/article/view/6740>.

105. Zaman, M. (2021). Transmigration, resettlement and development in Indonesia. In *Resettlement in Asian Countries* (pp. 71–81). London, Routledge. <https://doi.org/10.4324/9781003159780-7>.

Citation:

Стиль – ДСТУ:

Yulmardi Y., Junaidi J., Nugraha Putra D. Is the second generation of transmigrants more prosperous? A study of intergenerational welfare in ex-transmigration settlements. *Agricultural and Resource Economics*. 2023. Vol. 9. No. 1. Pp. 167–187. <https://doi.org/10.51599/are.2023.09.01.08>.

Style – APA:

Yulmardi, Y., Junaidi, J., & Nugraha Putra, D. (2023). Is the second generation of transmigrants more prosperous? A study of intergenerational welfare in ex-transmigration settlements. *Agricultural and Resource Economics*, 9(1), 167–187. <https://doi.org/10.51599/are.2023.09.01.08>.