

The Impacts and Opportunities of SALCRA Plantation to the Landowner's Socio-Economic and Labour Supply: A Case Study of SALCRA Estates in Saratok District

Evie Sendi Ibil^{a,*}, Sylvia Gala Mong^a, Roseline Ikau^a, Ruth Lua Ejau^a

^a Universiti Teknologi MARA Cawangan Sarawak, Jalan Meranek, 94300 Kota Samarahan, Sarawak, Malaysia

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Abstract

Plantation agriculture remains an important sector of the Malaysian economy. However, it faces problems of labour supply especially from the local participation, which led to the recruitment of foreign labourers. This study, therefore, attempts to assess the degree of local labour participation in the plantation sector based on the case study of landowners who participated in SALCRA's plantations at Roban-South and Saratok oil palm estates in the Saratok District, Sarawak. Data for the study were collected mainly through face-to-face interviews using an interview schedule. The study revealed that 35.14% of the respondents or landowners' households supply labour to the plantations. Landowners' labour participation in SALCRA plantations is influenced by the household size and land participating in SALCRA plantations. A two-stage cluster random sampling was used to select the respondents. As the sample of the study is small and confined to only two states, its significance is only to provide an insightful understanding of local labour supply characteristics of the Roban-South and Saratok oil palm estates and cannot be taken to reflect the whole of SALCRA.

Keywords: Labour Supply; Landowner's Socio-Economic; SALCRA Plantation

1. Introduction

The Vision 2020 and the Outline Perspective Plan (OPP) provide the precise direction in which the Malaysian economy will develop. The main thrust is on industrialization and the creation of a knowledge-based society, which implies that the contribution of the agricultural sector to the economy would be reduced. Nonetheless, this does not mean that the agricultural sector would be abandoned, but merely a shift in focus and prioritization of the nation's resources. Despite this, the plantation sectors will continue to contribute towards export earnings, employment, and supporting a broad-based local industry. Their role is expected to be important, as seen during the financial crisis of the late 1990s when agricultural activities were reactivated.

In 1990, three crops namely rubber, oil palm, and cocoa accounted for 4.2 million hectares or 80% of the total cultivated land areas in Malaysia. It is also supported about 500,000 smallholders and 118,000 households in the public sector land schemes. A paper presented at the Malaysian Institute of Economic Research (MIER) 1989 Conference reported that the plantations industry regularly contributed 8 per cent to 9 per cent of the nation's total tax revenue. In 1991 alone, the three major plantation crops contributed RM8.3 billion in export earnings to Malaysia (Jomo, K.S., 2019).

The plantation agricultural sector, despite its significant role, is facing one of the most pressing problems, which is the shortage of labour. In 1991, a survey done by the United Planting Association of Malaysia (UPAM) on

plantations in the peninsula of Malaysia showed that the sector had a shortage of more than 12,000 labour. In Sarawak, there has been a gradual decline in the number of the economically active labour force over the years. Padoch, C., Coffey, K., Mertz, O., Leisz, S. J., Fox, J., & Wadley, R. L. (2007) mentioned that in 1970, agricultural labour accounted for 64.3% of the total labour force, but it dropped to 46.7% in 1990. According to Seijts, G. H., & Crim, D. (2006), what was more alarming as found in the survey suggests that the remaining workers were getting older, thus resulting in decreasing productivity. Efforts to recruit locals also failed as the younger generation seemed more attracted to urban employment even though net incomes are lower. The greater emphasis on education resulted in multiple numbers of young Malaysians with higher education aspiring for more lucrative and prestigious employment.

1.1. Aim

This study aims to find out whether SALCRA's main objectives or functions have been applied to the actual situation or otherwise modified to suit the situation and to provide an understanding of the nature of labour supply in the estate for planning purposes. The question arises because it has been in existence for more than 30 years. The issue in question is extracted from Ordinance Part II Section 4. The Authority's Ordinance was passed on the 24th of March 1976 where all activities that the Authority carried out must be consistent with the Ordinance.

*Corresponding author Email address: evie4076@uitm.edu.my

1.2. Research questions

Arising from this, the research questions are posited here.

- i) What makes the locals shy away from working in the plantations despite the huge number of job opportunities offered for grabs?
- ii) Was it because of culture, attitude, wages, and competition from other sectors or could it be due to other reasons?

As such, it is the intent of this study to find out the reasons that contributed to the reluctance of Dayaks labour to work in the plantation sectors with a case study on SALCRA estates, which adopted the in-situ development approach developed on Native Customary Rights (NCR) land.

1.3. Objectives of study

The purpose of this study was to assess the degree of landowners' participation in the plantation workforce as well as to provide scientifically information on the present socio-economic status of the participants in SALCRA's in Saratok Division. Based on the general objective of the present study, the specific objectives were stipulated as follows.

- i) To determine participants' demographic characteristics;
- ii) To examine how agro-economic diversification and various forms of non-farm employment influence the labour supply in the estates;
- iii) To assess the attitude of the participant's participation towards the project, the regimented working style and foreign workers – "Tenaga Kerja Indonesia" (TKI); and
- iv) To evaluate the level of participants' participation on the implementation of the project, such as engaging as a small-scale contractor.

1.4. Significance of study

How far has the Authority contributed to the growth of the social and economic developments of the project's participants? How much have the participants and the people surrounding the project area benefited from the project? Apart from seeking the positive implications of the project, examining the adverse impacts would be a matter of concern as well. How has the project altered the routine livelihoods of the people? Before the commencement of the project, they had been comfortable with the way they cultivated their lands for their consumption and the surplus for sale in exchange for cash. However, the method adopted all the while was uneconomic.

Having a vast piece of land that was underutilized was and would be a major issue as far as the state government is concerned. Therefore, one of the functions of the

authority is to consolidate and rehabilitate those native lands by developing and managing them so that the economic value is realized through the issuance of land titles as well as net proceeds from the sale of the fresh fruit bunch (FFB) of oil palm.

2. Literature Review

2.1. The History of plantation in sarawak

Due to its large tract of underutilised land. Plantation agriculture is considered apt in Sarawak as a means to improve and uplift the livelihood of the population, especially the rural poor. However, unlike peninsula Malaysia which had started plantation agriculture as early as 1903, beginning with rubber plantation in Petaling Rubber Estate Syndicate (Giacomin, V., 2018), plantation agriculture development in Sarawak is relatively new. Plantation development in Sarawak started with the resettlement schemes, such as the Skrang and Melugu schemes, which began in 1964. These early plantations were not profit-oriented but rather, for security reasons. It was designed to remove Iban fallow-rotation cultivators, along the border areas of Sarawak, during Indonesian resident Sukarno's confrontation with Malaysia (Hasudungan, A., 2018). According to Ngidang, D. (2002), the first government agency to undertake plantation development in Sarawak was the Sarawak Development Finance Corporation (SDFC), which was then assisted by the Department of Agriculture. Between 1964 to 1974, SDFC developed seven land development schemes, namely Triboh, Melugu, Skrang, Meradong, Sibintek, Lambir, and Lubai Tengah for planting rubber. It covered a total area of 5,800 hectares involving 1,175 families (then known as settlers). The management of these plantations, which were modelled based on the Federal Land Development Schemes (FELDA) in peninsula Malaysia (Cramb, 1989), were handed over to Sarawak Land Development Board (SLDB) in 1972 when SDFC was reorganized to form SLDB, Sarawak Economic Development Corporation (SEDC), and Sarawak Housing Development Commission (SDHC).

2.2. The Concept of participation in economic development

SALCRA's projects are, the collaboration between NCR landowners and SALCRA, where the former was to provide labour and land, while the latter, with management expertise and funding. However, it must be noted that it is also not compulsory for landowners to work in more plantations. As a result of its policy of relying on participants for its estates' workforce, problems of labour shortage in SALCRA's estates have emerged since the implementation of its first project in Lubok Antu in the 1970s (Ngidang, D., 2002). This problem persisted until today so much resulting in SALCRA having to recruit foreign workers (Indonesian) to work in its plantations. The local labour supply has been on a reducing trend since 2015 (Table 1). Table 2 shows in between 2015 to December 2019, SALCRA recruited 11,113 Indonesians to work in its estates. For

2019 alone, 2,362 Indonesians were working in SALCRA's estates throughout the state. Estates under the Saratok-Saribas region of SALCRA were among the highest number of foreign workers employed.

2.2.1. Interpretation

- I. The different author interprets participation differently. The people consider the participation a voluntary contribution in one or another of the public programmes supposed to contribute to national development, but the people are not expected to take part in shaping the programme or criticising its contents (Palacios, C.M., 2010).
- II. Participation in respect of rural development includes people's involvement in decision-making processes, in implementing programmes, their sharing in the benefits of development programmes and their involvement in efforts to evaluate such programmes (Marzuki, A., 2015).
- III. Community participation is an active process by which beneficiary or client groups influence the direction and execution of the development project to enhance their well-being in terms of income, personal growth, self-reliance or other values they cherish (Donovan, R. & Henley, N., 2010).

Another approach to viewing the interpretation of participation is to distinguish between participation as a means or an end. Participation as a means is a way of harnessing the existing physical, economic and social resources of rural people to achieve the objectives of development programmes and projects. It stresses that the result of a predetermined target place is more important than the act of participation itself. As Cornwall, A., & Gaventa, J. (2000) states, often government and development agencies practise this kind of participation. On the other hand, participation as an end is an entirely different concept. It is an active and dynamic form of participation that enables rural people to play an increasing role in development activities. Lowe, P., Phillipson, J., Proctor, A., & Gkartzios, M. (2019) sees participation from a different perspective. Rural development is the participation of people in a mutual learning experience involving themselves, their local resources, external change agents and outside resources. People cannot be developed; they can only develop themselves by participating in decision and cooperative activities that affect their well-being. People are not being developed when they are herded like animals into new ventures.

To conclude, the authors broadly classify participation into three different categories as follows.

- i) Participation as a contribution – a voluntary or another form of contribution by rural people to predetermined programmes or projects.
- ii) Participation as an organisation – an organisation is the fundamental instrument of participation where the such organisation is externally conceived and introduced.
- iii) Participation is empowering – it is the transfer of power as implicit in participation. Some see empowerment as the development of skills and abilities to enable rural people to manage and negotiate better with existing development delivery systems while others see it as enabling rural people to decide upon and take necessary actions essential to their development.

2.2.2. Who participates?

In most instances, there is strong identification of participation in many countries with a broad mass of poor, oppressed and marginalized urban and rural people. Such people begin to rise out of their poverty and seek to promote participation may come from the government development agencies (Kirmayer, L.J., Brass, G.M., & Tait, C.L., 2000), non-governmental organisations (NGO) (Kirmayer, I., Simpson, C., & Cargo, M., 2003), project agents (Massey, D., 2004), and organisation.

2.2.3. Expectations and incentives

To sustain the involvement of participation from the rural people, some kind of expectations and incentives shall arise from the development projects. The people's participation is often equated to "offering money or other immediate material benefits" (Bekkers, R., & Wiepking, P., 2011). Where participation is not linked solely to immediate material benefits, incentives revolving around less tangible results should be sought to sustain participation.

2.3. Socio-economic impacts

The impacts of the project had no doubt changes the lifestyle of the people in one way or another through their thinking, attitude and behaviour. The impact could be seen from positive and negative perspectives. The positive aspects can be viewed from the social, economic and environmental needs that ought to be fulfilled. The social and health needs include the ability to recognise cultural values, set moral standards and attain equitable wealth, and have a shelter that provides a healthy, safe, affordable and secure homestead and neighbourhood. The economic need of the human race is simply access to a decent livelihood and beyond (Sneddon, C. S., 2000). The negative impacts are contrary to the above that is resulting in the backwardness of the people in all aspects of social, economic, development and environmental perspectives.

2.3.1. Social impacts – legal and illegal foreign workers

The issue of the engagement of foreign workers by the Authority has caused mixed opinions among the communities at large. Coupled with that, the engagement of local contractors who have engaged illegal workers aggravated the scenario.

The concern over foreign labour is linked to anxieties over what some have characterised as cultural pollution and over 'foreignisation'. In this context, the notion is that foreigners may change the cultural and social orders of the normal practice of the locals. The report presented by Vertovec, S. (2010) agreed with Weiner stating that 81.3 per cent of the respondents were concerned that the local culture was being threatened by the presence of these foreigners.

These researchers also discovered that the locals felt uncomfortable and complained that their quality of life deteriorated and thus harmed their health and hygiene. In addition, the locals fear that they were deprived of the due earnings as many employers prefer to recruit foreigners than locals.

The increasing number of foreign workers has created great concern in many Southeast Asian countries. In Singapore, for example, there was an increase in criminal offences involving foreign workers from 48 cases per month in 2004 to 61 cases per month in 2006 (Siddiqui, T., 2004). Among all types of crimes, robbery recorded the highest incident, 93.8 per cent in Kuala Lumpur from 2000 to 2006 (Dhattiwala, R., & Biggs, M., 2012).

2.3.2. Economic impacts

i) Quality of life

There has been some positive change and a general improvement in the quality of life (Cella, D., Hahn, E. A., & Dineen, K., 2002). For example, in the transformation of a wooden and bamboo longhouse at Rumah Awing Merindun at the SALCRA project in Sri Aman into a concrete house; many participants owned economic goods among others electrical appliances, machinery, household items and cars.

ii) Job opportunity

Research work done by Sanggin, S., & Mersat, N. (2012) found that the SALCRA project had provided job opportunities to the family of participants. In their findings, 86 per cent of the respondents from Kampong Tae agreed with the statement followed by 61 per cent from Batang Ai and 32 per cent from Lemanak. In the same study, the findings gave a consistent response from the above on the statement that "SALCRA has opened up many employment opportunities".

The researcher agreed at this point that the Authority has opened up many job opportunities and provided employment not only to the participants but to outsiders as well. Besides offering work in the field, the Authority has employed more than three-quarters of the

headquarters and estates personnel comprised of the participants or the participants' family members (SALCRA, 2001a).

iii) Local entrepreneur

The Authority has built up and produced many local entrepreneurs, particularly from among the participants' family members. These entrepreneurs started with minor contract work through work orders or service orders and gradually participated in bigger contracts such as field establishment works – mechanical clearing, road and bridge construction, road gravelling, building construction and many others (SALCRA, 2001b).

Owning gas stations by the participants at Lemanak and Batang Ai estates and establishments of many kedai kampung are some of the examples of the entrepreneurial activities resulting from the SALCRA project.

iv) The value of Native Customary Right land

Owning a huge piece of NCR lands but the inability to use them economically may just deny the participants or the landowners the real economic value of the assets. It was an opportunity indeed that the involvement of SALCRA in developing these lands into productive and turned into economic assets had benefited these landowners' economic value of their land (SALCRA, 2001b). Evidence showed that the issuance of Section 18 land title and net proceeds payments is sufficient to mention.

2.4. The constraint

Developing large-scale land development or plantation is not easy. Apart from requiring large capital investments and land, the availability of labour or workforce is also of critical importance as it determined the success of a plantation development venture. It is to be noted that plantation in Sarawak although providing income and employment opportunities, is not wholly taken to advantage by the locals. Sarawak is currently importing foreign workers into the plantation industry, especially from Indonesia. As of June, of 26,139 workers working in plantations located throughout Sarawak, 14,969 were Indonesian workers or equivalent to 57.3% of the plantation's labour force. This figure excluded vacant jobs of 8,121 for the same period (Malaysia, 2002). The figure suggested that the plantation sectors in Sarawak were facing labour shortages and foreigners have to be recruited to work in the estates. It also implies the reluctance of local labour to fill job opportunities offered by the plantation sectors in the state.

The employment of foreign labour requires a substantial amount of money including recruitment fees ranging from RM900 to RM1,200 per person in addition to wages and benefits to be paid to the workers. For example, in the year 2001 alone, the plantation sectors paid about RM13,472,100 to RM17,962,800 foreign workers' recruitment fees. This increased the production costs of the plantations and caused an outflow of income to the state and the country.

To realise the objectives set by the government in such sectors, and to avoid income outflows from Sarawak, a

study as to why local labour could not fill the job opportunities offered by the plantation sector is necessary as the basis for drafting a solution measure. This is necessary, now that the government of Sarawak (GOS) is planning to reach the target of 720,000 hectares of land for plantation agriculture by the year 2005 (Malaysia, 2002). Shortage of labour would impede or hinder the achievement of such targets if a solution is not found to solve this critical problem, as it also drastically affects the state's growth.

According to Feintrenie, L., Chong, W. K., & Levang, P. (2010), a sufficient and steady pool of reasonably priced labour is a prerequisite for a profitable plantation. He explained that the large acreage, huge investment, and timelines of operations make it all more necessary that workers follow fixed work schedules to ensure the efficiency of operations. Workers in commercial plantations are generally well disciplined but the same cannot always be said of workers in government-run

plantations, mainly because, in addition to being labourers, they are also plantation owners. In SALCRA's plantations, the availability of a sufficient and steady pool of labour is not possible despite the introduction of a sedentary form of agriculture, which provides constant job opportunities and offers income in the form of wages. The participant's availability of labour decreases during padding planting and harvesting season, hence, disrupting plantation operations. Feintrenie, L. et al. further cited that paddy planting could not be 'abandoned by the workers, as it has been a way of life (culture) for many generations. Li, T. M. (2011) who echoed Feintrenie, L., Chong, W. K., & Levang, P. (2010) views, mentioned that one problem concerning labour is not many local workers stayed long on plantation jobs. They tend to drift back to their traditional way of life in preference to paid employment even though the latter offers a more settled living and regular income.

Table 1
Local labour supply in SALCRA plantations by region

Region		Harvester					General workers				
		Year	2015	2016	2017	2018	2019	2015	2016	2017	2018
Sri Aman	Required	547	552	552	579	579	545	549	549	572	572
	Actual (LS)	279	536	288	280	153	327	557	447	261	185
	%LS	51	97	52	48	26	60	101	81	46	32
Saratok/ Saribas	Required	374	424	479	541	546	553	553	553	548	555
	Actual (LS)	482	294	283	262	405	9981	745	782	808	560
	%LS	129	69	59	48	74	177	135	141	147	101
Serian	Required	239	308	473	501	538	546	575	590	597	604
	Actual (LS)	129	135	166	215	158	656	678	744	349	412
	%LS	54	44	35	43	29	120	118	126	58	68
Bau/ Lundu	Required	266	390	368	368	366	810	641	576	481	474
	Actual (LS)	423	341	197	274	280	467	472	482	437	281
	%LS	159	87	54	74	77	58	74	84	91	59
Total	Required	1,426	1,674	1,872	1,989	2,029	2,454	2,318	2,268	2,198	2,205
	Actual (LS)	1,313	1,306	934	1,031	996	2,431	2,452	2,455	1,855	1,438
	%LS	92	78	50	52	49	99	106	108	84	65

Source: Field Operation Department, SALCRA

Problems of labour shortages also arise due to poor project management, the choice of areas to be developed, and the inability to offer competitive wages as compared to other sectors. Commenting on SLDB's problems in the 1980s, Cotula, L., Toulmin, C., & Hesse, C. (2004) pointed out that apart from poor management of projects, problems of labour shortages were acutely aggravated by the choice of areas developed. Rapid development that occurred within reach of SLDB's development area, particularly the development of Bintulu and competition of workers from timber camps and employment opportunities in Miri and other areas where wages are so much higher than SLDB can afford, contributed further to

the already chronic labour situation in the Lambir-Subis area.

Workers' or people's attitudes and working preferences also lead to labour shortages. A former Minister for Land Development, Sarawak mentioned, "... it all boils down to the attitude of the people. They just do not want to go far from the village or longhouses and to be involved in the tough work in the plantations" (Hansen, T.S., 2005). He further remarked that many locals are not prepared to work in an organized and regimented system such as those practical in plantations. They prefer to work on their farms where the hours are flexible, and they too are not prepared to move into estates (Bolt, M., 2013).

Table 2
Record of TKI recruitment and movement in SALCRA plantations from
January 2015-December 2019 by region

Region	Estate	General workers				
		2015	2016	2017	2018	2019
Sri Aman	Lemanak	69	64	101	46	38
	Batu Kaya	73	89	125	140	163
	Pakit	61	67	79	60	77
	Sedarat/ Memaloi	156	141	148	135	149
	Batang Ai	-	-	-	63	72
Saratok/ Saribas	Saratok	128	116	133	131	111
	Krian	38	39	37	34	29
	Saribas	80	102	89	82	63
	Rimbis	58	37	59	44	25
	Roban-South	133	157	197	207	167
	Roban-North	112	112	98	1041	128
	Skundung	-	7	7	-	-
Serian	Kedup 1	141	149	167	154	171
	Kedup 2	43	42	82	87	96
	Melikin	58	87	104	90	94
	Mongkos	103	104	143	111	123
	Taee	164	140	160	134	129
Bau/ Lundu	Jagoi	145	140	160	153	167
	Bratak	159	135	149	133	159
	Undan	111	108	112	120	155
	Stenggang	148	122	162	131	128
	Sebako	77	78	91	96	88
Total		2,057	2,036	2,403	2,255	2,362

Source: Human Resource Department, SALCRA

3. Research Methodology

This section described the data collection technique and analysis, and the background of the study area.

3.1. Population under study

SALCRA is a state government statutory body responsible for land development. It was set up in 1976 and began operation immediately after its formation.

The estates under study i.e., Roban-South and Saratok are part of SALCRA's projects in the Saratok-Saribas region, Saratok district. In the Saratok-Saribas region alone, there are six estates in which apart from the two mentioned i.e., Saribas, Roban-North, Krian and Rimbis. In this region, 6,588 landowners are participating in SALCRA projects from 283 kampung longhouses. This region covers 14,621 hectares of oil palm plantation.

To address the research problems adequately and in consideration of the size of the population, the widespread location of the respondents, and the time constraint involved in completing the study, a two-stage cluster

sampling was employed (Lewis-Beck, M., Bryman, A. E., & Liao, T. F., 2003). There were two clusters involved i.e., participating villages, and landowners from the villages. Random sampling was made using a computer-generated table of random numbers. The SALCRA branch in Ulu Layar and Roban-South provided a list of participants and partial data were provided from the SALCRA Headquarters in Kota Samarahan (Table 3).

Table 3
Participation as of December 2014

Division	Number of villages	Number of landowners
Sri Aman	119	5,034
Betong/ Saratok	283	6,588
Samarahan	133	7,532
Kuching	59	6,598
Sibu	52	794
Miri	2	148
Total	648	26,694

Source: SALCRA Headquarters, Kota Samarahan

Table 4
Participation as of December 2014

Estate	Stage 1: Village cluster (Sampled villages)	Stage 2: Landowners (Sampled participants)
Roban-South	5	20
Saratok	5	17
Total	10	37

The first stage involved the village where 10 of the sample was taken. Finally, a sample of landowners within the village was taken at 37 respondents for both estates. The rule of thumb in the statistic is that for a significant analysis the minimum amount of sample must be at least 30. However, it has to be noted that due to the rounding up, the total percentage lightly increased for all the sampling stages. The details of the sample are shown in Table 4.

3.2. Research design: one-shot cross-sectional case study

The present field investigation employed a one-shot cross-sectional case study. This case study is exploratory as it attempted to uncover the reasons why local labour could not meet the labour requirements of SALCRA's plantations. To come up with representative information on the subject, data covering various aspects of the subject like respondents' profiles, household profiles, education, main and secondary economic activities, income level and sources of income, and views on the plantation practices were collected.

3.3. Research instrument

The instrument was designed based on the specific objectives of the study. The interview schedule was used to gauge the information required for the study. The interview schedule consisted of two main features; structured and non-structured response options, which were written in English and translated into Bahasa Melayu, and contained variables on (i) respondents' background, (ii) households' demographic profile, (iii) agro-economic activities, and (iv) respondents' involvement and perception on plantation works and management.

Pre-testing of the research instrument was carried out on selected respondents on 17th December 2014 before the actual fieldwork was executed. This was carried out to determine the weaknesses of the interview schedules based on the responses obtained. Questions were then modified based on the response options to provide for a better collection of data.

3.4. Data collection

Data for the study was collected using two main techniques: (i) face-to-face interviews, and (ii) additional information required for the study was gathered from

official statistics. In this study, there were three main groups of informants. The first group were participants, and responses were obtained through face-to-face interviews using an interview schedule. The second group was the plantation staff using interviews and discussions. Personal observations were also employed to obtain relevant information from the respondents, which could not be obtained directly from personal interviews. Fieldwork was conducted from early January 2015 to the end of December 2019.

3.5. Data analysis

The data were coded and analysed using Statistical Package for Social Science (SPSS) software. Analysis was carried out primarily to provide adequate answers to specific research objectives in the introduction chapter. Both qualitative and quantitative analyses were used for the study. For qualitative analysis, responses from the respondents were presented mainly using descriptive statistics. Inferential statistics such as correlation tests were used to test the research hypotheses.

3.6. Scope and limitation of study

The sample taken for the present study was small and its coverage was confined to only two SALCRA's estates in the Saratok district i.e., Roban-South and Saratok. The consequence is that the findings are only applicable to the two estates concerned. Therefore, it must not be taken to represent the whole estate scenario within SALCRA.

4. Results, Findings and Discussions

This section focuses on the data analysis procedure and the research findings. Data reliability analysis was performed before a comprehensive analysis of the questions from each questionnaire component.

4.1. Reliability analysis

Table 5
Reliability statistics

Cronbach's Alpha	N of items
0.957	68

Table 5 shows the reliability statistics of the questionnaires. The Cronbach Alpha reliability study yielded a score of 0.957 for 68 items. The recorded figure indicates the data dependability fits into the "Excellent" category at the top of the acceptable range. According to Shanmugam et al. (2018) general rule of reliability tests, data greater than 0.7 in reliability analysis is considered acceptable and can be used as a finding. The more excellent reliability analysis result indicates that the respondent does not have a significant problem answering the questionnaire since most are clear with the question demand.

4.2. Results and findings

This section revealed the major findings of the study.

4.2.1. Respondents' background

i) Demographic profile

All 37 respondents were of Iban descent consisting of 75.68% male and 24.32% female. Their average age is 56.62 years, ranging from 30 to 80 years old (Table 6).

Table 6
Gender of respondents by estate and age group

Age	Estate				Total
	Roban-South OPE		Saratok OPE		
	Male	Female	Male	Female	
21-30	0	0	1	0	1 (2.7%)
31-40	1	0	2	0	3 (8.1%)
41-50	3	1	3	1	8 (21.6%)
51-60	3	2	4	0	9 (24.3%)
61-70	4	1	2	2	9 (24.3%)
71-80	4	1	1	1	7 (18.9%)
Total	15 (40.5%)	5 (13.5%)	13 (35.1%)	4 (10.8%)	37 (100%)

ii) Education attainment of respondents

Table 7
Educational attainment of respondents by estate

Educational level	Estate		Total
	Roban-South OPE	Saratok OPE	
Never attended	7	5	12 (32.43%)
Primary education	3	2	5 (13.51%)
Lower secondary	4	3	7 (18.92%)
Upper secondary	6	7	13 (35.14%)
Total	20 (54.05%)	17 (45.95%)	37 (100%)

Table 7 indicated that 32.43% of the respondents have never attended formal education. 54.05% of the respondents attended lower to upper secondary education while the other 13.51% attended only primary education. The highest number of schooling years is 11 years i.e. Form 5 secondary school education.

iii) Main occupation

In total, the respondents were involved in eight main categories of occupation (Table 8). The majority of the respondents are farmers (11), government servants (11), and farmer-cum-SALCRA workers (8).

Table 8
Educational attainment of respondents by estate

Main occupation	Estate		Total
	Roban-South OPE	Saratok OPE	
Farmer	8	3	11 (29.73%)
Government servant	4	7	11 (29.73%)
Farmer-SALCRA worker	3	5	8 (21.62%)
Labourer	1	1	2 (5.41%)
Other jobs	1	1	2 (5.41%)
Driver	1	0	1 (2.7%)
Teacher	1	0	1 (2.7%)
Security guard	1	0	1 (2.7%)
Total	20 (54.05%)	17 (45.95%)	37 (100%)

iv) Landownership in SALCRA project

On average, each respondent has 3.96 hectares of land involved in the project, ranging from 0.24 hectares to 22.05 hectares. Unlike in other regions of SALCRA, lands belonging to a village or longhouse involve in the estate under the Saratok region are equally or communally owned by the landowners of that participating longhouse. However, the size of the communally owned land developed for each longhouse varies from one another. Likewise, the exact size of land owned by each landowner from one longhouse to another also varies, depending on the total land size surrendered by the villagers for the estate development and the number of landowners, who shares the land.

v) Ownership of off-estate land

Table 9
Ownership of off-scheme land by estate

Ownership	Estate		Total
	Roban-South OPE	Saratok OPE	
Yes	19	15	34 (91.89%)
No	1	2	3 (8.11%)
Total	20 (54.05%)	17 (45.95%)	37 (100%)

Off-estate land refers to the land kept by landowners and not surrendered for plantation development. It has been the policy of SALCRA to allow landowners to keep some lands for landowners' use. The data revealed that 91.89% of the respondents kept land for their farming activities as tabulated in Table 9. On average, they own 8.76 hectares of off-estate land with a maximum of 18.00 hectares. Only three (3)

respondents who work as government servants have surrendered all of their lands for the project.

4.2.2. Household demographic information

i) Family size and population

The study area has a population of 199 people; 106 males and 93 females (Table 10). The average age of the population is 37 years old, while the average household size is five members (Table 6).

Table 10
Population of the sampled respondents' household by estate

Gender	Estate		Total
	Roban-South OPE	Saratok OPE	
Male	56	50	106 (53.27%)
Female	59	34	93 (46.73%)
Total	115 (57.79%)	84 (42.21%)	199 (100%)

ii) Migration

It was reported that 98 household members had migrated out of their villages, averaging between two or three people (2.65) per household. Of these 98 people, 50 are male and 48 are female (Table 11). The ratio of female migration to males affirmed Lokshin, M., & Glinskaya, E. (2009) findings that although traditionally, migration is predominantly a male phenomenon; this has changed with the introduction of an educational system and job opportunities available for both genders. The following reasons accounted for migration; the availability of employment opportunities outside their village (51.2%), marriages (34.69%), and schooling (14.28%) while out of these (Table 12).

Table 11
Migration of respondents by estate

Gender	Estate		Total
	Roban-South OPE	Saratok OPE	
Male	28	22	50 (51.02%)
Female	30	18	48 (48.98%)
Total	58 (59.18%)	40 (40.82%)	98 (100%)

Table 12
Reasons for migrate by estate

Migrators' Occupation	Estate		Total
	Roban-South OPE	Saratok OPE	
Working elsewhere	27	23	50 (51.20%)
Marriage	24	10	34 (34.69%)
Schooling	8	6	14 (14.28%)
Total	59 (60.20%)	39 (39.76%)	98 (100%)

Higher wages (35%), getting a job that is commensurate with their qualification (35%), and a better working environment (30%) were the reasons for those who worked elsewhere (Table 13). In terms of age structure, 76.34% of the population were in the age group of the labour force and the remaining 23.66% were either too young or too old to be employed.

Table 13
Reasons for working elsewhere by estate

Reasons for working elsewhere	Estate		Total
	Roban-South OPE	Saratok OPE	
Better wages	12	9	21 (35%)
Qualification	10	11	21 (35%)
Better working environment	11	7	18 (30%)
Total	33 (55%)	27 (45%)	60 (100%)

4.2.3. Income

With a monthly gross household income of RM1,539.64 per month, the respondents live above the state poverty line income of RM960 per household. Overall non-plantations income, which accounted for 80.48% of the household income, plays an important role in the survival of the respondents' livelihood. The main source of household income was derived from the salary of household members who were employed on monthly payments. Income obtained from working in SALCRA (8.30%) was not crucial (Table 14). Therefore, whether landowners come to work in the plantations or not, does not affect their livelihood.

Table 14
Estimates of annual household income and sources

Sources of income	Annual Income (RM)
Monthly salary of household members	RM 272,293.00 (39.82%)
Dividend from SALCRA	RM 76,686.00 (11.22%)
Salary (if having a monthly paid job)	RM 72,450.00 (10.60%)
Sale of agricultural products (paddy, pepper, fruits, vegetables, fish and animals)	RM 66,600.00 (9.74%)
Remittances	RM 58,590.00 (8.53%)
Wages from working in SALCRA's estate	RM 56,770.00 (8.30%)
Income from other odd jobs	RM 33,720.00 (4.83%)
Others	RM 46,854.00 (6.83%)
Total	RM 683,600.00 (100%)

It is also interesting to note that, despite its major contribution to household livelihood, the income level of non-plantation activities does not affect the supply of labour to the estate. This relationship is attributed to three main reasons namely: (i) households that have members whose main occupation is plantation worker supply constant number of labour, (ii) the plantation working hours and its productivity-wage centered works (piece rated or task work) enables landowners to finish their work early or in fewer working days, which in turn enable them to involve in other agro-economic activities that could provide extra incomes to their household, and (iii) the high non-plantations income does not pull labour supply because it was mainly contributed by other household members whose main occupation were government servants or private sectors employees-jobs which require a certain amount of qualification. As such, those household members that made living from being plantation workers could not simply switch to government or private sector jobs just because it offers higher income.

4.2.4. Agro-economic activities

A large majority of the respondents (75.68%) still plant paddy for both food security and maintaining paddy seed (64.29%). They would work full-time on the farm during the paddy season. In addition to paddy, the respondents were also involved in at least three other agro-economic activities (3.08) and a maximum of four, indicating that they are not in total dependent on plantations for work.

4.2.5. Involvement and perception of plantation works and management

About 29.73% of the 37 households were still working in SALCRA supplying 21 workers to the estate (13 males and 8 females). Although almost half of the respondents (45.95%) indicated they liked working in SALCRA, given an alternative, they prefer to work on their farm (16.22%) as it is easier for them (56.67%). Almost half of the

respondents (45.95%) still have reservations about working on lands owned by participants from other villages. They indicated that working in SALCRA does not require respondents to follow strict rules (48.65%) and therefore have no problem adapting to the regimented life of plantation work.

SALCRA does not practice wage discrimination between males and females. Overall, respondents still consider the present wage rate offered by the estates for both maintenance (51.35%) and harvesting works (48.65%) unreasonable. Almost half of the respondents (45.95%) felt that increasing wages and incentives would attract people to work in the estate. However, a quarter still has some reservations that it will do so.

5. Discussions, Limitation and Future Recommendation

5.1. Discussions

Two main factors influence local labour Based on the findings and statistical interferences, several discussions were drawn.

5.1.1. Factors affecting labour supply

Two main factors influence local labour supply to SALCRA plantations i.e. the size of households and land surrendered for plantation development.

i) Size of household

Labour supply in SALCRA plantations depended on the household size i.e., larger households would supply more labour to the estate. This is possible because larger household has more able-bodied for deployment to work in the estates. For future development and should SALCRA were to rely on locals for its plantation workforce, the household size within the development area is one variable that needs to be considered.

ii) Size of land surrendered for plantation

The size of land surrendered by landowners for SALCRA plantations has a negative relationship to labour supply. The bigger the size of land surrendered for plantation, the less they would supply labour to the estate. This is probable because landowners no longer see participation in SALCRA as a source of employment but as a form of investment which could explain why 29.73% of the respondents still prefer to work in the plantations for income. The rationale, if a person has a bigger share of land in the estate, he or she would receive a bigger dividend from the participation in the project in times of good prices. Hence, no desire to be a wage earner.

5.1.2. Livelihood survival of landowners/participants

The livelihood survival of landowners who participated in SALCRA plantations is not dependent on employment in the plantations but on other employment or agro-economic activities. This is evident from the fact that only 29.73% of the respondents made SALCRA's plantation works their main occupation. In addition, income obtained from working in SALCRA plantations contributed only 8.30% to their household income; compared to the 80.48% contribution of non-SALCRA plantations' income.

5.1.3. Irregular labour supply

From qualitative analysis, there is some indication that the labour supply issues in SALCRA plantations are not a question of number, but rather the matter of how regular or permanent they work in the plantations. During paddy season, festive and cultural events, even those who worked in SALCRA plantations, would be absent from work.

5.2. Limitation

Due to the small size of the sample and time constraint involved in conducting a comprehensive study, the findings presented in this study is only good in providing an insight into the labour supply characteristics of Roban-South and Saratok Oil Palm estates. As such, it must not be construed to be reflecting the whole of SALCRA plantations.

5.3. Future recommendation

To understand the whole picture of local labour supply characteristics in SALCRA a further study with expanded sample and wider coverage is needed.

6. Conclusion

From the results and findings, we can conclude that landowner's labour participation in SALCRA plantations is influenced by the household size and land participating in SALCRA plantations i.e. larger household has positive relationship with labour supply. On the other hand, the size of land involved in the plantations has a negative relationship with labour supply i.e. the bigger the size of land surrendered for SALCRA plantations, the less they would supply labour to the plantations. It was also found that landowners are not solely dependent on SALCRA for employment. The labour issue in SALCRA is not due to number, but how regular the local people would turn-up to work.

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