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Landowner's Response and Adaptation to Large Scale Land Development Projects in Sarawak, Malaysia

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Abstract

This paper is an analysis of how the rural communities (landowners) in Sarawak are responding to the implementation of commercially oriented land development project. A study was carried out in three different regions of Sarawak to identify issues and problems faced by the people and the agencies during the course of the implementation of the projects. The study's objective was to identify the livelihood strategies of the indigenous people (i.e. the Iban and Bidayuh communities) who are affected by the large scale land development projects The study used both qualitative as well as quantitative methods of data collection. The selected respondents consisted of local scheme's participant or landowners.. The study revealed that some of the indigenous people were initially quite skeptical of the large scale land development project as they were not familiar with the concept. Nevertheless, despite their initial reluctance, majority of the indigenous landowners finally agreed to participate in the projects by allowing their native lands to be opened up for the oil palm plantations through which they have benefited not only in terms of increased in income but they also enjoy better infrastructures and livelihood as well.

Keywords: Land development, Iban, Indigenous people, Livelihood Strategies

1. INTRODUCTION

Large scale land development projects started in the 1970's. The first land development scheme was started by the Sarawak Land Development Board (SLDB) with its pioneer project in the Skrang and Melugu rubber scheme. Both of these areas are located in the Sri Aman Division, Sarawak. Soon it was followed by the establishment of similar rubber plantation scheme in Lambir, Miri Division, and later in Sibu Division. Those projects were aimed at developing idle land and at the same time helping to provide employment and raise the socio-economic well-being of the majority of people in the rural areas. Sarawak Land Consolidation and Development Authority (SALCRA) came in later.

The idea to set up SALCRA came during the Mid-Term Review of the Second Malaysia Plan (1971-1975), when the Government of Sarawak decided to form another statutory body with the objective of developing and managing Native Customary Rights (NCR) land. It was firmly believed that development of NCR land is an appropriate strategy to bring about socio-economic

development to the rural areas of Sarawak, hence, enabling the participation of rural communities into the mainstream of Sarawak's development. Furthermore, land consolidation is aimed at consolidating and enlarging fragmented and uneconomic holdings, typical of most, if not all, NCR lands in Sarawak.

Thus, SALCRA was officially established in May, 1976 as a Government Statutory Body under the Sarawak Land Consolidation and Rehabilitation Authority Ordinance, 1976. With the aim of assisting the State Government of Sarawak in achieving the objectives of the New Economic Policy (NEP), particularly concerning the eradication of poverty (Lang, 1987). The objective of SALCRA is to consolidate the development of land for agriculture in Sarawak, especially NCR Land. Its functions were to:

1. rehabilitate land for agricultural purposes;
2. promote and undertake agricultural development or projects in the State;
3. develop for agriculture on its own or amalgamated with others in areas already declared as Development area; and
4. initiate and carry out projects or schemes for development and improvement of agriculture.

SALCRA started its first plantation project with the Lubok Antu Oil Palm Project in Sri Aman Division, Sarawak soon after it came into operation in 1976. Oil Palm cultivation was its main activity until it implemented two cocoa estates in 1982 and the Mayang Tea Project in 1983. The cocoa estates failed and those areas had been replaced with oil palm estates. Today, SALCRA's core business encompasses the management of NCR land for oil palm plantations and tea estate. Since the establishment of the first oil palm estate in Lubok Antu in 1976, 17 more estates have sprung up, including one tea estate, covering more than 51,000 hectares of land area stretching from Lundu to Bau, Serian, Sri Aman, Betong and Saratok regions.[1]

Oil palm *(Elaeis guineensis)* has been the more prominent cash crop preferred for large-scale land development under SALCRA. The main reason behind this choice of crop is because oil palm is hailed as the highest yielding oil crop per hectare (Basiron, 2007; Teoh, 2010). Also the rate of poverty, especially in the rural areas of Sarawak is one of the highest (5.3%) in the country as reported in the 10th Malaysia Plan 2010. Therefore, poverty alleviation continues to feature prominently in the rationale for continued oil palm expansion (Majid Cooke *et al*., 2006).

The approach adopted by SALCRA in its land development programme is an *in-situ* type of development, i.e., bringing projects to where there are already people instead of bringing people to projects. Land development under SALCRA's concept makes use of the existing unutilised or under-utilised lands for the benefit of landowners or claimants without jeopardising their rights of ownership or claim to such land (Lang, 1987). Implementations of projects are modeled in such a way that SALCRA provides the funds, expertise, and management, while the landowners or project participants provide land and labour (if they can).

[1] Corporate Information provided by SALCRA, August 2013

2. Research Questions

Given the fact that SALCRA had been in operation for more than 40 years since its establishment, one would wonder if the livelihood of the Iban and Bidayuh communities in the affected rural areas (SALCRA Oil Palm Schemes) have changed. How active are they participating in the projects? What are the major impacts of SALCRA oil palm scheme on the local community? Are they dependent on the oil palm schemes or do they resort to other economic activities to support their living?

This study was an attempt to provide answers to the above-mentioned concerns and questions. It is hoped that with a better understanding of the current situations the relevant authority will be able to solve some of the critical problems it is now facing. In particular, the findings of this study may help explain why local people are not actively participating in the project (oil palm plantation). Similarly, an understanding of the status and usage of indigenous knowledge (IK) amongst the local communities would enlighten the importance of IK to the livelihood of the indigenous communities. Subsequently, such an understanding will be useful to plan appropriate strategies for the successful project implementation of the existing ones and any other future project which involves local community's participation.

Aims and objectives of the study

The primary aim of the study was to determine the status of local people's participation in SALCRA Oil Palm schemes and the adoption of indigenous knowledge to adapt to the changing environment. Specifically, the objectives were to:

1. determine the level and nature of participation by local communities in the SALCRA oil palm schemes;
2. identify the livelihood strategies of local indigenous people in adapting to the new environment of oil palm plantations; and
3. evaluate the impacts of SALCRA's oil palm schemes on the livelihood of the landowners.

3. Literature review

The two most important concepts relevant to the study are indigenous knowledge (as in the context of livelihood strategies), and community participation. These concepts are integral to this study as the key issues to be explored concern the lack of active participation by the local people in the development project and how local communities' livelihood strategies adapt to the changing environment, a term referred to as the indigenous knowledge. Past experiences have shown that development efforts that ignore indigenous knowledge, local systems of knowledge, and the local environment generally fail to achieve their desired objectives (Charyulu, 2008).

According to Grenier (1998), **indigenous knowledge** (IK) refers to the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area. It is the participant's knowledge of the temporal and social space. It is more than just technologies and practices. It includes information, practices and technologies, beliefs, tools, materials, experimentation, education communication as well as human and biological resources. Learning indigenous knowledge can improve understanding of local conditions and provide a productive context for activities designed to help the communities. It has been shown that despite the many efforts to analyse poverty, a lack of understanding of the

coping mechanisms of target groups is a major cause of project failure (Zoomers, 1999). Indigenous knowledge is also the information base for a society which facilitates communication & decision making. Indigenous information systems are dynamic & are continuously influenced by internal creativity & experimentation as well as by contact with external system. (Flavier et. al. 1995)

Scoones and Thomson (1994) noted that indigenous knowledge is an underutilized resource in the development activities. They argued that indigenous knowledge needs to be intensively and extensively studied, and incorporated into formal research and extension practices in order to make agriculture and rural development strategies more sustainable. Likewise, Warren (1993) contended that the use of indigenous knowledge assures the end user of specific development projects are involved in developing technologies appropriate to their needs. In the context of this study the indigenous knowledge of the local communities is seen as a critical factor in determining the success of the project undertaken by SALCRA. The people's knowledge of livelihood strategies sometimes interferes with the way they viewed new approaches and strategies of development. Past practices and belief systems can influence how people accept new technologies and ideas. For that reason it is important that the indigenous knowledge be first understood and taken into consideration in the planning process.

One area of indigenous knowledge that the study had tried to focus on is **livelihood strategies**, which refer to activities undertaken by the local indigenous community to support the life and well-being of the people in the community. In particular, the study seeks to identify the alternative livelihood strategies of the landowners who participated in the oil palm schemes.

Understanding the local context of household livelihoods is not only necessary to ensure appropriate development strategies, but also as a basis for monitoring and evaluation, and a means of assessing potential for replication in other contexts. Every household including those in the rural communities have a range of needs which they access through various means.

Poor people are involved in diverse and dynamic livelihoods strategies utilizing a wide portfolio of resources - material, economic, natural, human and social. This diversity is locally specific, and dynamic. Poor people are poor in different ways and at different times in different places. As such, appropriate development interventions to address poverty alleviation must be based on a thorough understanding of these livelihoods issues (Friend and Funge-Smith, undated FAO document).

The other concept is **community participation**. One United Nations document (1981:5) defined community participation as "the creation of opportunities to enable all members of a community to actively contribute to and influence the development process. Most development programs are dependent on community's participation. It is believed that community participation will enable communities to contribute towards designing an acceptable and user friendly designs and to make communities develop interest in the operation and maintenance of projects (Sigwaza, 1997). It makes for justice in decision making – people have some say in, and influence on, collective decisions (Beetham, 1992). Effective people's participation is essential, both as a means to an end, as an end in itself.

Since community participation is a dynamic process its assessment should include both qualitative and quantitative aspects. A lot of literature agrees that assessment of community participation should not be based exclusively on the measurement of material; but social effects or processes of development are useful as well (Oakley, 1991). Hence this study was aimed at

both qualitative and quantitative aspects of community participation in the SALCRA's Oil Palm plantations. Besides looking at the rate of local participation in the land development projects the study also attempted to examine the nature and process of participation by the community in the affected areas.

A number of studies had been conducted pertaining to the participation of local people in SALCRA plantations. However, most of these related studies (King , 1986; Songan, et al., 1996; Horowitz, 1998; Ayob, et al., 1990; Ngidang, 1996) were focused on specific areas and ethnic group. The findings by Songan, et al. (1996) indicated that at the initial stage of development the Oil Palm scheme in Kalaka-Saraibas area most of the scheme participants were satisfied with the performance of SALCRA. Also the rate of community participation was found to be high.

Banerjee and Bojsen (2005) also conducted a study on land use strategies in the SALCRA Batang Ai resettlement scheme. One of the key findings of that study was that a large number of households have been discouraged to practice other agriculture activities, particularly shifting cultivation, other than being participants in plantation schemes. They noted that some households in the resettlement area adopted off-scheme agricultural activities in addition to working in the SALCRA plantation. The adoption of other forms of economic activities besides working in the oil palm plantation was seen as a livelihood strategy amongst the local participants. Incomes generated from their participation (i.e. working in the oil palm plantation) were insufficient to support the family's growing needs.

Ahmad Madzan Ayob, et al. (1990) also had similar findings in that they pointed out that most households in the three SALCRA oil palm plantations they studied were involved with at least one other economic activity outside the boundary of the plantation areas. The majority of the scheme participants have off-scheme agriculture to fall back on considering the average income from the scheme was less than RM2,000 per year. This indicates that the livelihood of the communities do not and cannot entirely depend on the oil palm plantation. Lang (1987) also noted earlier on that for many rural Ibans, rice cultivation, which is one of the major off-scheme agricultural activities, is more than just growing a food crop but it is a way of life. This has caused serious disruptions to plantation operations as the number of available local labour decreases, particularly during rice farming season.

4. Research Methodology

This is a cross-sectional study involving SALCRA's scheme participants; both existing as well as past participants. The study used both qualitative as well as quantitative methods of data collection. For the qualitative component, the researchers used observation and in-depth discussion with the respondents. The respondents were comprised of the local scheme participants, i.e. local landowners, as well as the SALCRA's personnel in the respective oil palm schemes. For a comparative analysis, respondents were stratified based on ethnicity and region.

4.1 Population and sampling

For the quantitative approach to the study, the researchers have identified the schemes' participants as the population of the study. All scheme participants in Saratok,-Saribas, Sri Aman/Lubok Antu, Serian and in Bau/Lundu SALCRA oil palm plantations were included as the study's population. Since the size of the population was extremely large (estimated to be about 20,000 landowners), the researchers decided to select a sample of 500 respondents using

proportionate stratified random sampling technique. A List of scheme participants in each of the schemes were used as sampling frame. Samples were selected based on region and ethnicity.

4.2 Data Collection

.A survey was conducted using interview schedule on selected respondents representing the three ethnic groups who are participating in the SALCRA Oil Palm estates. The interview schedule among others, include questions pertaining to the respondents' off-scheme activities, their indigenous knowledge of livelihood strategies, their perception towards SALCRA oil palm project and the respondents' socio-economic characteristics.

4.3 Data analysis

Data collected using interview schedule were processed and analysed using SPSS (Statistical Package for the Social Sciences) software. Data were summarized and tabulated to display the frequency distribution.

5. Major Findings and Discussions

The following section presents the major findings of the study in relation to the study's objectives. The first part relates to the characteristics of the respondents (landowners and SALCRA's Oil Palm Schemes participants). This is followed by the findings and discussions on the nature and level of landowner's participation in the oil Palm schemes, their livelihood strategies and finally, the impacts of SALCRA's Oil Palm schemes on the livelihood of the owners.

Characteristics of the Respondents

As seen in table 1, the respondents were mostly Iban (73.4%). The rest were Bidayuh (26.6%). They were located within the SALCRA Land development areas and most of the respondents were land owners who had participated in the SALCRA Oil Palm schemes. In terms of locality, the Iban respondents were located in 36 Iban longhouses in the Sri Aman, Lubok Antu, Betong and Saratok region whilst the Bidayuh respondents were from 13 Bidayuh villages in Bau, Sarawak (table 2). A total of 500 respondents were interviewed and most (57.6%) of the respondents were between 41 to 60 years old. Only a quarter of them were below 40 years old.

Table 1: Distribution of Respondents by Ethnicity

Ethnic group	No. of respondent	Percentage
Iban	**367**	**73.4**
Bidayuh	**133**	**26.6**
Total	**500**	**100.0**

Also, majority (57%) of them were male respondents. The respondents were chosen based on their role in decision making in the family as well as their availability to respond to the survey conducted during the time of the interview.

Table 2: Distribution of Respondents by Locality/District

District	No. of respondents	Percentage (%)
Bau	**131**	**26.2**
Kabong/Roban	**113**	**22.6**
Lubok Antu	**105**	**21.0**
Engkilili	**76**	**15.2**
Pantu	**75**	**15.0**
Total	**500**	**100.0**

Indigenous People's Participation in the Oil Palm Schemes

The concept of In-Situ land development undertaken by SALCRA implies that the local people (landowners) participate actively in the process of developing their land. The approach was genuinely good and in fact it seemed to be working pretty well during the initial stage of development. Based on our interview with the respondents, people were involved actively despite some initial objections in early years. It took a lot of efforts from SALCRA management team together with the help of local leaders to convince local landowners to finally agree to surrender their lands to be developed for oil palm scheme.

The benefits gained by local landowners, particularly monetary benefits mainly in terms of bonuses and dividends were initially very encouraging. However, things have changed drastically over the years. Some of the problems were beyond the control of SALCRA management (such as price of commodity) while others were partly attributed to the inappropriate intervention by SALCRA in its efforts to improve efficiency and performance. Consequently, that had led to the poor performance by several estates under SALCRA and had resulted in gradual lack of meaningful participation from the local people particularly in terms of actual involvement in the schemes.

One of the goals of the establishment of SALCRA's oil palm schemes was to provide employment and consequently will help to reduce poverty among rural communities. From the survey (table 3), it was found out that only 17.8 % of the households had family members employed in the plantation sector (i.e. SALCRA's Oil Palm Estates).

Table 3: Employment in the Selected SALCRA Oil Palm Schemes

Are there any of your family members employed in Oil Palm Scheme?	Frequency	Percentage
Yes	89	17.8
No	411	82.2
Total	500	100.0

In fact, from the respective households surveyed, a total number of 112 persons are currently working in the plantation sector. Thus, the objectives of providing employment to the rural communities through plantation sector to the communities had not been fully realized.

The problem of lack of interest and gradual decrease in participation by local population, particularly working in an estate-type of environment was anticipated. In a paper presented at AZAM seminar in April 1986, Lang (1986) pointed out the importance of human element in development. He emphasized that the scheme participants should be involved in certain level of decision making. In the case of SALCRA the labour needed to implement the project comes from the project participants (i.e. landowners). Unfortunately many of the project participants still continue to practice hill rice cultivation, tapping rubber and planting pepper, practices which have caused serious disruptions to plantation operations. As a result many SALCRA schemes have reported difficulties in retaining local scheme participants to work in the plantation. To overcome labour shortages SALCRA had resorted to employing foreign workers as source of labour for SALCRA's oil palm plantations.

The low rate of participation in the SALCRA oil palm schemes by the local people in later years partially contradicts the objectives of establishing SALCRA in the beginning. This could imply that the local people will not gain maximum economic benefits from the projects even though they may enjoy the infrastructural facilities provided for by SALCRA. In addition, the indigenous landowners are also assured of their rights to the land through issuance of land titles by the government (SALCRA, 2013). In SALCRA schemes, NCR landowner participants provide their land for one cycle of oil palm of 25 years, while SALCRA provides financial and technical resources. This venture is signified by a letter of consent between two parties, SALCRA and the native landowner participants (Majid Cooke, et.al., 2011).

Indigenous Knowledge – Livelihood Strategies

This study had attempted to examine the level of indigenous knowledge (IK) practice among SALCRA's participants who are involved in Oil Palm industry but at the same time try to sustain their indigenous knowledge. Indigenous knowledge is said to be threatened through the destruction of forests replaced by government projects or through commercialization of natural resources (World Intellectual Property Organisation, October 1999: 9). The clearing of Native

Customary Rights land for commercial plantation by SALCRA in Sarawak is one good example. Landowners no longer have control over their NCR land and the natural resources that they have managed for many generations once their lands are surrendered to SALCRA for Oil Palm plantation. From the survey it was found out that almost all (98.8%) of the respondents stated that they still collect forest products (table 4). Evidently the collections of forest products were carried out in the remaining forest areas which were not utilized for oil palm cultivation. Most of these products are for family use rather than for sale, although there were cases where vegetables collected from the forest ended up in the nearby markets. The distribution of respondents by the types of forest products collected is shown in table 4a below.

Table 4: Utilization of forest products by Ethnicity of Respondents

Ethnicity of Respondents	**Frequency (%)**
Iban	363 (72.6)
Bidayuh	131 (26.2)
Total	494 (98.8)

Table 4a: Distribution of Respondents by Types of Forest Products Collected

Types of Forest products collected	Frequency	Percentage
Construction timber	326	86.0
Other types of construction materials	90	23.0
Firewood	5	11.1
Bamboo	12	3.2
Rattan	137	73.7
Wild Mushroom	116	69.9
Weaving materials	219	73.2
Wild vegetables	94	25.5
Fruits	226	95.4

* Multiple responses (N=500)

The other aspect of the indigenous knowledge is how the local indigenous people (Iban and Bidayuh) adapt themselves to the changing economic environment. In other words, what are their livelihood strategies given the changes affecting them with the introduction of oil palm plantation in their area? In particular, the issue of concerns is with regard to the sources of income other than working in the oil palm scheme. This study as well as past studies also revealed that many farmers also have existing crops like rubber and pepper to maintain (table 5). With the current booming price of rubber many scheme participants have temporarily abandoned work in the oil palm plantations and concentrate on tapping rubber trees as they do get more income by doing so. At the same time there were cases where local participants left their rural community to seek

employment elsewhere, particularly in the urban areas. All these strategies were undertaken out of necessity to meet the needs (mostly financial) of the landowners.

Table 5: Respondents' Other Economic activities besides working with SALCRA Oil Palm Scheme

Other Activities	Frequency	Percentage *
Tapping rubber trees	42	53.8
Other general agricultural activities	40	51.3
Rice cultivation	35	44.9
Pepper cultivation	4	5.1

Note: * Multiple responses (n=78)

Findings from earlier an earlier study by Ayob et. al., (1990) also noted that scheme participants while working with SALCRA also spend equal amount of time on their land holdings where they grow subsistence as well as cash crops, such as pepper, cocoa, rubber, and fruit tree. Almost half of their income originates from their own smallholdings agriculture.

Impacts of SALCRA Oil Palm Schemes on the Livelihood of the people

One of the main objectives of SALCRA was to bring socio-economic development to the rural areas. That would mean better income and living conditions for the rural people. The development of idle land in the rural areas was seen as one of the strategies to help eradicate poverty amongst its population. The measures of improvement in the living conditions amongst rural population, particularly in the study areas, are mainly the income level of the families affected by the projects, the houses they occupied, and accessibility to infrastructural facilities available.

Household Income

Table 6 below shows that majority of the respondents were earning less than RM500.00 a month in terms of cash income. This amount is far below the state level poverty line (RM830.00). Fortunately, rural communities, including those in the study areas, have other sources of non-cash income to fall back on. It must be noted however, that cash income is a critical factor for many rural inhabitants as cash is needed by families to meet the necessities of life such as sending children to school, paying for transportation, electricity and water bills, and the like. Non-plantation agriculture (such as rice cultivation and rubber small holding) contributes significantly to the livelihood of the scheme participants. Thus, a reliable alternative source of cash income is deemed necessary as a livelihood strategy. Obviously, the local people's perception of the income gained from employment in SALCRA's scheme is not enough to sustain their livelihood. Nonetheless, yearly bonus and dividend given out by SALCRA is still an

important component of cash income for many rural families in the affected areas. In fact, about 64% of the landowners indicated that one of the main reasons why they allowed SALCRA to develop their land was to increase income for their families. A study by Christensen et al (2003) in Kampung Bokah, Bau, Sarawak also found that the participation in SALCRA has improved the socio-economic condition in Bokah, as it increases the income opportunities for people in the kampung.

Table 6: Distribution of Respondents by Monthly Income

Respondent's Monthly Household Income (RM)	**Number of household**	**Percentage**
≤300	**242**	**48.4**
301 – 500	**118**	**23.6**
501 – 700	**50**	**10.0**
701 – 900	**29**	**5.8**
901 – 1100	**16**	**3.2**
1101 – 1300	**10**	**2.0**
1301 – 1500	**6**	**1.2**
≥ 1501	**29**	**5.8**
Total ***Range=50.00–7000.00*** ***Mean = 526.00***	**500**	**100.0**

The Deputy Chief of Sarawak, Datuk Patinggi Tan Sri Alfred Jabu, also claimed that "SALCRA had been successful in eradicating poverty in the rural areas based on the fact that the NCR landowners had been receiving dividends for participating in SALCRA oil palm schemes." (The New Sarawak Tribune, 2013)

Further observations and discussions with the management in a few schemes revealed that the local people (landowners) are becoming less interested working in the oil palm scheme. Some of them prefer to do other jobs to earn additional income. Labour will still be an issue, as farmers tend get older, with the younger ones moving to the cities for emplylment.

Better Houses – indicator of improved living standard

The finding of the study indicate that all of the respondents are living in their own houses (either longhouse or village type). The quality of houses owned or occupied by the respondents and their family members to some extent indicates their well-being. From the survey, only about 40% of the longhouses (and the "*bilek*" in the longhouses) were rated as good compared to 54% in the village-type houses. However, only a very small fraction (less than 1%) of the respondents' living quarters can be considered as in extremely poor condition (table 7). As claimed by SALCRA,

many of the landowners who participated in the Oil Palm schemes have improved the conditions of their houses, many used to be wooden type houses, now upgraded to brick houses.

One of the reasons for the highly significant number of "good" houses can be partially attributed to the impact of SALCRA's oil palm schemes found in some of the communities. From the researcher's observation, those longhouses which were owned by scheme participants were likely to be better-off than those which were not. One would likely jump to a conclusion that scheme participants are better-off than those who are not. However, the bigger factor, in our opinion is that these houses are accessible by roads (one of the benefits of SALCRA's land development) and therefore have easy access to the markets or towns where building materials can be obtained.

Table 7: Distribution of respondents by types of houses, conditions and construction materials

Types of house	**Longhouse (66.8%)**		**Village-type house (33.2%)**	
Conditions:	Freq	%	Freq	%
Good	136	40.7	90	54.2
Moderate	192	57.5	64	38.6
Not in good condition	5	1.5	11	6.6
Very poor condition	1	0.3	1	0.6
Total	**334**	**100.0**	**166**	**100.0**

Ownership of Household Items

One's life quality can be measured not only by how much income is generated but also by the types of equipment and facilities that one can use and enjoy in enhancing the comfort of life. Among others such facilities as Television, radio, telephone or hand phone, refrigerator, cars, air condition units, can improve the quality of life even in the rural areas. Table 8 below shows that almost every family (93.6%) owned a television set; almost up to 90% have radios and a significant number of families owned motorcycles and/or cars. Some families have refrigerators and/or fans, depending on availability of 24-hour electricity as well as their income level. It is worth noted here that those houses which accessed to electricity were likely to have more electrical appliances than those that does not. Table 8 below shows the distribution of respondents' households by types of equipments and facilities owned.

Table 8: Distribution of Respondents by ownership of Household Equipments and Facilities

Household Items Owned	Percentage of Respondents
Television	93.6
Radio	88.
Astro / Satellite TV	31.4
Cell-phone	10.8
Refrigerator	75.4
Air-condition	3.0
Car	42.0
Motorcycle	80.0
Gas stove	98.0
Fan	81.8
Sewing machine	46.4
Settee (sofa/cushion)	70.4

Infrastructural Facilities

One of the impacts of SALCRA oil palm schemes on nearby areas includes enhancement in accessibility to basic infrastructures and amenities. Basic infrastructures such as electricity, water supply, roads and bridges are important for the well-being of the people. From the survey, all of the villages are accessible by roads, with 66.2% of the respondents reported that the road leading to their villages and longhouses are tar-sealed. The other 33% of the respondents indicated that the roads leading to their houses are graveled road and they are looking forward for the government to upgrade those roads. Many of these roads were only built after the implementation of SALCRA oil palm projects. Other than providing access to oil palm estates, the building of access roads to many longhouses and villages was considered as SALCRA's social responsibility to the scheme participants.

Table 9: Distribution of respondents by their accessibility to infrastructural facilities

Infrastructural Facilities	Percentage (%) of Respondents having Access to Facilities	Percentage of Respondents who rated the conditions of Facilities as "good"
24 hr Electricity	75.0	90.9
Piped water	97.0	54.2
Clinic	74.0	86.2
Community hall	33.2	63.3
Telephone	30.8	62.3
School	99.2	92.1
Gravel road	34.2	6.4
Tar-sealed road	66.2	55.9
	N=500	N=500

Conversely, table 9 shows about 75% of the respondents reported that they have access to 24-hour electricity; almost all (97%) of the respondents have access to piped water supply. However, slightly more than 50% of these respondents considered the condition of the piped water as moderately good. This is because the piped water is mostly gravity fed and usually untreated. Most of the respondents also reported having no problem with access to schools and health clinics or hospitals. Nevertheless, only about 30% of the respondents have telephones or hand phones. This is because the areas where they live do not have telephone lines or outside the range for reception of mobile phones.

Overall, most of the respondents were happy with the infrastructural facilities available to them. Many claimed that without the SALCRA projects most of the rural areas affected would still be lacking in some of the facilities that they are enjoying now. Seen from this angle, one could say that the quality of life among many of the respondents had improved significantly.

6. Conclusion

For the people who live in the rural areas land is their most important asset. Land has been the source of livelihood for the majority of rural populace in Sarawak. The development of the indigenous people's land in some areas of Sarawak had brought about significant changes not only to the landscape but also to the quality of life in the rural areas. In Sarawak SALCRA is one of the agencies that has been entrusted by the state and federal government to develop rural NCR land, which are otherwise unutilized, for commercial oil palm plantations with the ultimate aim of eradicating poverty amongst the population in the rural areas state of Sarawak.

As evidenced from this study, there had been some significant changes in the lifestyle and quality of life of the Iban as well as the Bidayuh after the implementation of the oil palm plantation by SALCRA. However, the indigenous people's participation in the oil palm schemes had gradually decreased over the years. In fact, most of the harvesting works in the SALCRA oil palm plantations have been taken over by foreign workers, mainly from Indonesia. Many of the local workers had resorted to other economic activities for their livelihood, including seeking employment in the urban areas.

Despite the decreased in the number of local people remained working in the oil palm scheme, SACLRA had brought some positive impacts to the Iban and Bidayuh indigenous communities in the affected areas. These include improvement in cash income to the families, accessibility to infrastructural facilities such as roads, water supply, electricity, clinics and so on, which makes the overall quality of life of the local people generally better.

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