A Study of Local Livelihoods:

Using the Sustainable Livelihoods Approach

Introduction:

The focus of this qualitative research project is household "livelihoods" in FELDA communities, in the wider context of peri-urban Malaysia.[1] The framework for this research is the Sustainable Livelihood Approach (SLA), which emphasises the concept of "assets".

Aim:

To comprehend community understandings of the assets which FELDA households in peri-urban Malaysia draw upon in order to generate a livelihood, according to the SLA.

Objectives:

- To utilise participatory methods to build up a holistic picture of community perspectives of people's lives that includes their capabilities, skills, health, social networks and access to services, as well as their financial situation
- To explore how these factors are related to external policies, institutions and practices

Background:

Socio-economic transformation in Malaysia: The development of FELDA

Historically, Malaysia has experienced deep ethnic segregation and economic inequality between the Malay, Chinese and Indian ethnic groups. Rural development policy was perceived as a way in which to remedy the disparities between Malay and non-Malay, and rural and urban populations. In particular, Sutton & Buang (1995) argue that land resettlement is an appropriate

[1] Four FELDA communities participated in this research. Additionally, one FELCRA community was involved in field research. As this research intended to focus on FELDA communities, FELCRA will not be addressed in the body of this report. [See appendix A].

and popular approach to rural development because costs, both political and financial, are relatively low.

FELDA was founded in 1956 (the year before Malaysian independence), with the aim of improving the livelihoods of poor, landless rural Malay, narrowing the urban/rural economic divide and developing forested land for agriculture. By the 1960s, FELDA had been adopted as an agency at the federal level of independent Malaysian government (Fold 2000).

In FELDA's initial stages, settlers were granted title to land upon repayment of the initial development loan. Each household was allocated four hectares (ten acres) of cropland, a house lot and a garden plot (Fold 2000). It was intended for settlers to use crop land for agricultural production of, primarily, rubber.

By the early 1960s, rubber entered a prolonged price decline, prompting FELDA to subsidise a large-scale transition from rubber to oil palm production (Fold 2000). This was aided by perceived high income tax on rubber, lower labour intensity in palm oil cultivation and higher return per hectare of land (approximately four times the income of rubber) (Fold 2000).

Finally, Malaysia's ethnic and political tensions erupted in the 1969 racial riots. In response, the government implemented the New Economic Policy (NEP) in 1971. NEP aimed to create national unity through a two-fold strategy. First, it intended to reduce and eradicate absolute poverty irrespective of ethnicity (Economic Planning Unit Prime Minister's Department Malaysia 2013). Second, it aimed to restructure society in an attempt to correct economic imbalances (Economic Planning Unit Prime Minister's Department Malaysia 2013). FELDA's role was substantially augmented under NEP.

Contemporary FELDA operations

In 1989, the government announced ambitions to transition FELDA to a more economically and financially independent institution (Fold 2000). In 1991, the scheme ceased settler recruitment (Fold 2000). Sutton & Buang (1995) highlight that FELDA's focus is now commercial efficiency, favouring economic enterprise over social development objectives.

While settlers may be responsible for carrying out work, including manuring, weeding, pest control, road maintenance, harvesting, tapping and transportation of agricultural produce, FELDA is increasingly involved in the agricultural management of land (FELDA 2001).

Stemming from its original role in rural development, FELDA places a focus on community and social development, for which programs have been carried out in each FELDA scheme (FELDA 2001). The Scheme Development Committee (JKKR) has been established in each scheme to act as a principal body in order to carry out educational, economic, social and agricultural development activities (FELDA 2001). The JKKR's Vice-Chairman (Settler Leader) is appointed from among those who represent blocks in a settlement area (FELDA 2001). The "block leaders" are elected by the "block members" with each block comprising of 20 to 24 members (FELDA 2001). Settlers have also formed other socially-orientated committees (FELDA 2001).

Successes and emerging problems in FELDA

Partially as a result of NEP, and arguably the FELDA development scheme, Malaysia has experienced rapid economic development in recent decades. Reportedly, poverty has nearly been eradicated; with households living below the poverty line fallen from over 50 percent in the 1960s, to less than 1 percent currently (World Bank 2016). However, income inequality remains high (World Bank 2016).

Fold claims that FELDA is considered 'one of the most successful examples of settlement schemes in developing countries in terms of economic viability and political stability' (2001, p. 473). However, FELDA faces emerging problems, particularly in the face of a changeover to the second generation of settlers.

According to Sutton & Buang (1995), success in increasing education levels in rural Malaysia has increased aspiration levels amongst the younger generation, which are often better realised through out-migration to higher paid urban employment. Both Fold (2000) and Talib (1992) concur that this has resulted in a serious labour shortage, generating reliance on contracted (legal and illegal) workers, predominantly from Indonesia. Fold (2000) predicts that settled FELDA communities will have to continue coping with labour shortages while urban areas offer better employment opportunities. Talib goes so far as to foresee that 'schemes will eventually become idle land', as older settlers retire without sub-letting plots (1992, p. 160). However, FELDA has guarded against idle land by taking on the role of managing land which is otherwise improperly maintained (Sutton & Buang 1995). A retired settlor may retain the house lot and receive RM20 per month per hectare of land (Sutton & Buang).

The Sustainable Livelihoods Approach (SLA)

This research project was designed around the Sustainable Livelihoods Approach (SLA). SLA emphasises assets, defined as 'the strengths and capabilities of people living in poverty and the strategies they use to "get by"' (May, Brown, & Cooper 2009, p. 5). SLA draws connections between household level information and the wider context in order to plan actions and instigate positive change in communities (May, Brown, & Cooper 2009). This approach views people living in poverty as 'active agents who make rational decisions and choices about their lives, and in response to social and economic change' (May, Brown, & Cooper 2009, p.5). SLA utilises a participatory framework for assessing poverty, thus aiming to empower the community concerned (May, Brown, & Cooper 2009).

The Sustainable Livelihoods Framework divides assets into five categories as follows (May, Brown, & Cooper 2009, p. 10):

Human assets: Skills, knowledge, good health and the ability to work together to achieve livelihood objectives.

Social assets: Informal relationships of trust, reciprocity and exchange with families, friends and neighbours, as well as more formalised groupings (e.g. community and religious groups).

Physical assets: Tools, equipment and basic infrastructure people need to function and be productive.

Financial assets: Earned income, pensions, savings, credit facilities, state (welfare) benefits, child maintenance, etc.

Public assets: Public services, local organisations and regeneration groups as well as people's' general engagement within their community.

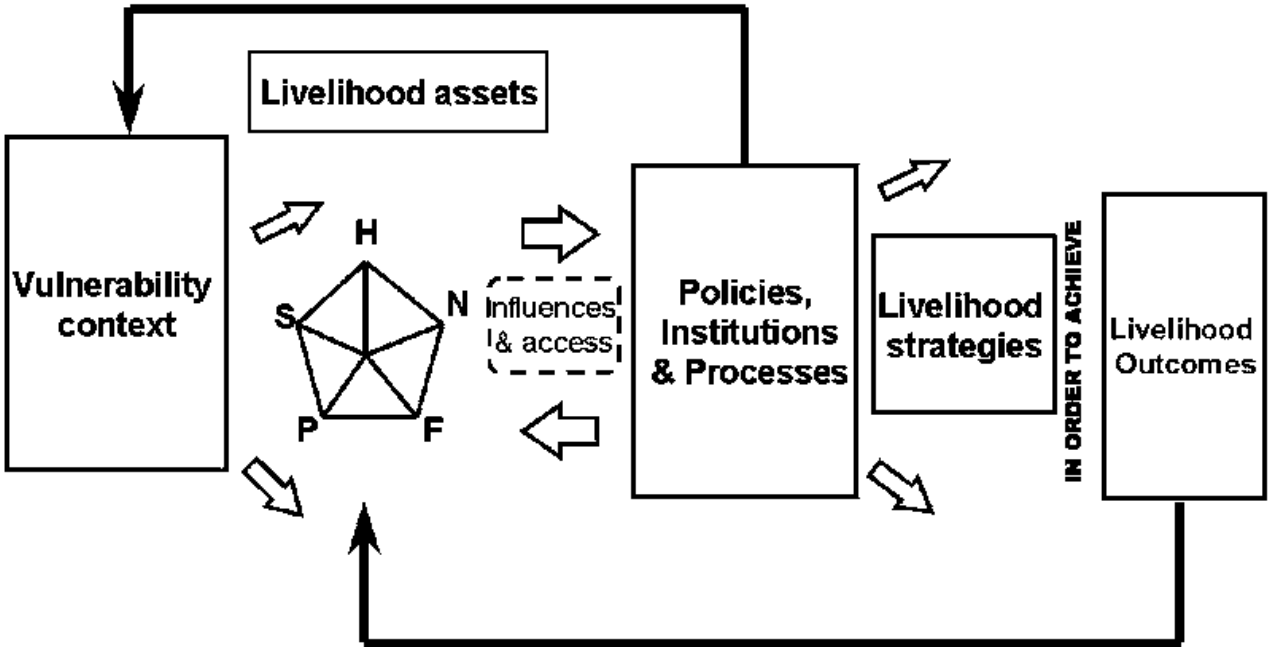

Figure 1: FAO 2005

However, these assets remain interlinked and should be considered together.

The SEACO Research Platform

This research has utilised the South East Asian Community Observatory (SEACO) research platform, which pursues "whole of life" research, focusing on elements affecting community health and well-being in regional Malaysia (SEACO 2013). SEACO has been engaged in the Segamat community since its formal inception in 2011 (SEACO 2013), and emphasises a working partnership with the local community. SEACO's ongoing community engagement has provided this research project with an invaluable base on which to access high quality data, resources and relevant research participants.

Rationale

It is widely noted that out-migration and the necessity of pursuing non-agricultural livelihoods have forced a diversification of the rural economy. For example, Ragayah (2013) claims that despite intentions that FELDA settlers would focus on agricultural activities, rural poor, particularly women, have been absorbed into the industrial sector. Further, it has been suggested that immigrants from Indonesia, southern Thailand, Myanmar and the Philippines are undertaking 'labour and underwriting the profits of Malay family farms, whose owners and family members are engaged in more lucrative, urban-based employment elsewhere' (Thompson 2015, p.237-8). However, there remains relatively little literature on the nature and impact of such diversification and transformations (Thompson 2015). The rationale for this research project is to strengthen understanding of how future development policy should respond to emerging obstacles to rural agricultural livelihoods, taking into consideration the perspectives of the communities themselves.

Methods

Qualitative and ethnographic methods were utilised due to their flexible nature in collating an in-depth and emic understanding of community perceptions of complex issues (Crook 2003; Sofaer 1999). Qualitative methods proved most appropriate due to their ability to delve into the holistic layers that influence experiences and social processes, sourced from the voices of the community, and free of pre-determined quantitative categories (Sofaer 1999).

Furthermore, an iterative, developmental approach to inquiry was adopted, largely due to unfamiliarity with the research setting and lack of expertise (Soafer 1999). Initially, there was uncertainty not only in regard to the answers to the research questions, but what the questions

should be. As understanding of the research topic increased, questions were refined and became more structured.

Due to the iterative, developmental nature of this research, flexibility was essential within the research methods employed. Methods had to be adapted to both the context and participants encountered. For example, initially the researchers intended to utilise primarily visual activities during focus groups. However, participants were reluctant to engage in drawing activities. Therefore, methods were shifted towards listing and discussion to accommodate participant preferences.

Figure 2: Listing Activity FELDA Community **4**

Furthermore, ongoing, constructive debriefing between researchers and SEACO field assistants was crucial in refining methods and rectifying mistakes. For example, the way in which the project was introduced to participants, including addressing consent, was initially poorly structured. After debriefing, the structure was professionalised. There was substantial improvement in the methods as field research progressed.

SEACO field staff were a vital resource to researchers during field work. Participants were enrolled in SEACO's research platform and targeted through purposive sampling. Purposive sampling involves the targeting of a subset of the populace which is affected by specific circumstances (Bernard 2011; Laws et al 2013). The research was able to benefit from pre-existing engagement between SEACO and the community, which fostered willingness and openness within communities.

The five members of the research team facilitated triangulation of data. Triangulation involves a process of examining differing perspectives in an attempt to produce participant consensus (Sofaer 1999). Field notes were compared following data collection sessions in order to identify shared perceptions of reality. The process of triangulation assumes that truth occurs in the overlap of the venn diagram, although Sofaer (1999) challenges whether some truth exists outside.

When undertaking data collection, the group of five researchers enabled for the delegation of tasks so that the primary facilitator could focus on the interview or focus group, while other researchers took notes. To further ensure full engagement with participants, while maintaining the accuracy of data, direct voice recording was also employed (Desai & Potter 2006).

Figure 3: The delegation of tasks and gender coordination in FELDA Community **4**

Language barriers proved a substantial obstacle in conducting research methods. Initially, hurdles were encountered in translating concepts such as “livelihoods” and “assets” into informal, conversational Bahasa Malay. Therefore, assets were termed “values” and “community resources” in order to make the research topic more understandable for participants. In addition, difficulties were encountered in ensuring questions were as open-ended as possible, which is imperative in ensuring accuracy of qualitative research (Desai & Potter 2006). Additional preparation alongside translators may have proved valuable in addressing these issues.

Additionally, there were concerns regarding the amount of dialogue translated during focus groups. Particularly, the research group were concerned that information provided by

participants was omitted from the subsequent English translation. This raised questions of accuracy and representativeness of the data collected. These concerns were repeatedly addressed during debriefing, which involved the entire research team, and attempts at rectifying made through researchers adopting a more active role in probing for further and more detailed translations. However, concerns remained that occasionally translators asked leading questions, or answered from their own perspective, rather than objectively.

The researchers acknowledged that their presence invariably modified the research context. The identity of the researchers as “foreigners” and as “academics” likely affected the reality which was observed, although precisely how this may have affected the research context is not evident.

Qualitative data was collected by processes of interviews and focus groups, transect walks, Participatory Learning and Action (PLA) and field notes of observations and reflections. Notable was the obvious gender imbalance in participation groups. As field research was conducted during week days, it seemed likely that men were undertaking work or other activities, whereas women, many of whom were housewives, were more likely to be available and willing to participate.

Focus Groups

Figure 4: A Focus Group Discussion in FELDA Community **3**

Focus groups proved invaluable in the rapid collection of large amounts of data, particularly given the time constraints facing our field research (Department for International Development {DFID}2003; Sofaer 1999). Furthermore, focus groups were used as an initial method so as to develop rapport with the local community through encouraging discussion and the sharing of ideas (Sofaer 1999).

Focus groups were structured around participatory activities, including creating timelines, community mapping, mind mapping and listing and ranking exercises. Focus groups were commonly divided into multiple smaller groups, often based on gender or generation. This enabled the data to reflect different demographics and to ensure all participant voices were heard, particularly in the presence of English speaking participants who could often be more

domineering. It is imperative in research to ensure all voices are given the opportunity to be heard (Kuruppu & Ganepola 2005; Woodley & Lockard 2016). Probes and prompts were used to clarify, encourage collaboration and maximise interaction within the group (Khan & Manderson 1992). Although Khan & Manderson (1992) argue that ideally participants should not know each other in advance, it appeared that pre-existing social relations encouraged open and honest discussion. For example, a divorced woman readily shared her marital status in the presence of family and friends, whereas it may otherwise have been considered social taboo in the conservative context of Malaysia. However, as focus groups were centred around pre-existing social networks, data may have failed to capture a wholly diverse range of attitudes (Khan & Manderson 1992).

As Kahn & Manderson (1992) establish, group dynamics are important in focus groups, including an informal setting with a relaxed atmosphere. The research setting changed every day, typically being held in the local community hall or committee meeting room. The formal atmosphere of the committee meeting rooms, being more akin to a board room-like setup, compromised the informal atmosphere and possibly impeded the breakdown of barriers in building rapport with participants.

Semi-structured Interviews

Figure 5: Semi- structured interview in FELDA Community **4**

Semi-structured interviews provided deeper and more detailed data by eliciting the specific experiences of participants. This method was chosen in order to draw upon participants' own experiences and ideas through the use of open-ended questions, vignettes and theoretically-driven questions, ensuring all aspects important to the research were covered (Desai & Potter 2006; Galletta & Cross 2013; Laws et al. 2013).

This informal interview style was employed in order to gain individual perspectives, unrestricted by existing power dynamics present in focus groups. In particular, the older generation was highly complementary of FELDA, while the younger generations seemed to refrain from criticising the system in front of their elders, but were more willing to talk openly in individual interviews. This allowed for an understanding of all stakeholders' perspectives, not solely those with greater authority.

As claimed by Redman-Maclaren et. al. (2014), it was found that social and cultural contexts played a significant role in influencing research design and implementation, particularly in regards to the necessity of sensitivity towards gender perceptions. Therefore, interviews were based on gender, with male researchers interviewing males, and female researchers interviewing females.

Transect Walks

Figure 6: Transect Walk in FELDA Community **1**

Transect walks were conducted in each FELDA community in order to gain an understanding of shared community assets. In one instance, a "transect drive" was conducted due to the hot

weather in the mid-afternoon, and participant preferences. This scenario reinforces the notion of adaptability and iterative processes, which underpinned the research methods.

Participatory Learning and Action

Due to time constraints in the field it was unrealistic to promote long term empowerment through the use of Participatory Learning and Action (PLA). However, the researchers attempted to engage the participants through the use of research tools such as mapping, the creation of timelines and listing activities, which allowed respondents to participate to the greatest degree possible.

Photography, with consent of participants, was also utilised to capture visual data in communities.

Data Analysis

Despite the short time period in the field, a vast amount of data was collected. Data analysis involved several processes: (1) discovering themes and subthemes; (2) reducing themes to a manageable few; and (3) identifying relationships between themes (Ryan & Bernard 2003).

Data analysis was an ongoing process throughout data collection. At the conclusion of each session, the research team and field translators debriefed regarding key observations and reflections. In particular, this highlighted subjectivity in interpretation and triangulation across data. Through continuous data analysis, research questions were refined, hypotheses were developed and avenues of inquiry were able to be pursued in further depth (Pope et al. 2000). Pope et al. suggest that this ‘continuous analysis is almost inevitable in qualitative research: as

the researcher is “in the field” collecting the data, it is impossible not to start thinking about what is being heard and seen’ (2000, p. 114).

Line-by-line coding was not a feasible means of data analysis given time constraints and the large amount of data collected. Therefore, mind mapping and matrix techniques were used in order to undertake a systematic and methodological review of results. Initially, mind mapping was used to identify themes and subthemes, and to consider relationships between them. These mind maps were used to develop a matrix, in which data from interviews, focus groups, and transect walks was collated under corresponding themes. This was useful in highlighting triangulation across participants and in categorising evidence for themes uncovered.

Figure 7: Listing and ranking activity to highlight sources of income in FELDA Community **4**

Data analysis highlighted one of the important principles of the Sustainable Livelihoods Approach: the significance of power relations and hierarchy that exist both within and between households and communities. Through data analysis; the process of 'taking things apart and putting them back together again' (Laws 2003, p. 7), differences in the values between gender and generations were highlighted. This led to the development of a layered and contextual approach to findings, which emphasised how factors operate at different levels of the community (May, Brown, & Cooper 2009).

[Refer to Appendix B for mind map and data matrix].

Key Findings

Households drew upon a diverse range of assets: financial, social, human, physical and public, in order to form a livelihood. It was found that FELDA communities are still highly supported by FELDA, particularly in providing community resources, supporting local business enterprise, promoting education and agricultural management. However, although FELDA and the agricultural sector still remain a mainstay of FELDA communities, livelihoods have diversified to depend on a wider range of assets, as demonstrated by Figure 8.

Financial	*Social*	*Human*	*Physical*	*Public*
- FELDA land title allocations - Rubber/palm production income - Small business enterprise - Government welfare payments - Personal Savings	- Committees (e.g. Women's Committee; Youth Committee; Mosque Committee) - Social networks- family & friends	- Good health standards - Access to education/ training - Migrant labour	- Transport- primarily private cars & scooters - Agricultural equipment - Fish ponds - Subsistence gardens	- Internet access - Health Clinic (minor injuries & pregnancy) - 1Malaysia mobile clinic - Access to hospital in Segamat- via car or ambulance - Mosque - Kindergarten, primary school, secondary school - Community hall - Internet Centre

Figure 8: Assets identified in FELDA communities, categorised according to the SLA

Initial analysis focused on the assets utilized by FELDA communities as a whole, using the SLA framework. As analysis progressed, it became more nuanced. Differences emerged between generations and gender, in regards to the importance of various assets. This led to the development of five key themes around which research findings have been focused: education, employment opportunities; social committees and contract workers.

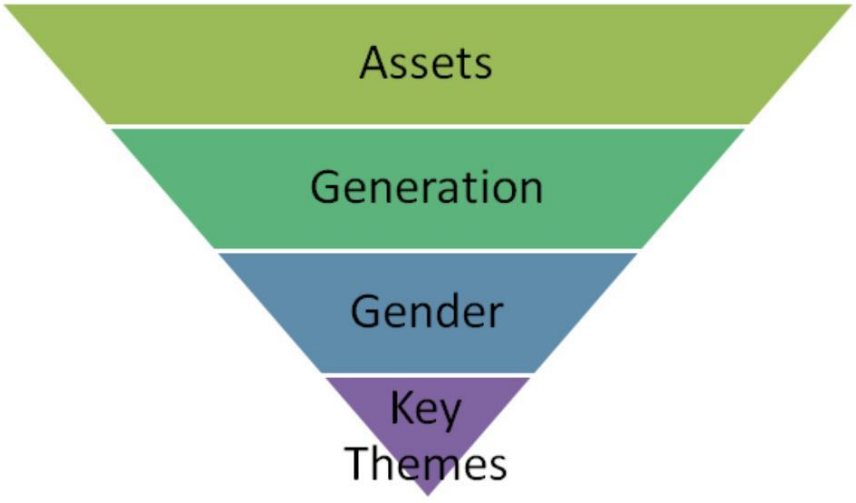

Figure 9: Key themes were considered in a layered and contextual approach

Notably, there is high degree of interrelatedness between the prominent themes established. This is highlighted throughout the findings.

Education

Education was identified as a human asset of high importance, particularly for the second and third generations. However, while education contributes to livelihoods in FELDA communities, particularly through broadening employment opportunities and sources of income, it is also associated with out-migration of human assets.

Kindergartens and primary schools were present in all communities, with easy regional access to secondary education. Further, the majority benefited from local libraries and internet centres, vastly increasing access to information, which in turn influenced the pursuit of technological enterprises and a broader range of employment opportunities.

Of particular note were the FELDA merit-based scholarships. Participant **7** from FELDA community **2** identified that a GPA of 2.5 would secure a 50% scholarship to university, while a GPA of 3.5+ secures a 90% scholarship. This has allowed the youth of FELDA communities to study in urban centres, both domestically and internationally.

The increase in education has produced an increase in youth outward migration: increasing levels of education broaden employment prospects, resulting in a decline in local involvement in the plantation process. The perception that community-based livelihoods are unequal to that of urban centres has facilitated a significant loss of human assets in the FELDA communities. However, the phenomenon of out-migration in FELDA communities means that many households,

particularly the older generation, receive remittance payments. Participants repeatedly identified remittance payments from family members as a source of income.

Figure 10: Contemporary education was facilitated by the resources available through the internet centre, including universal free WIFI, in FELDA Community **2**

Employment Opportunities

A process of intergenerational diversification from agricultural to other enterprises was evident throughout the participating communities. The primary beneficiaries of the FELDA plantation structure are those holding land title. According to Participant **3** in FELDA Community **2**, FELDA provides a payment of RM1400/month and ~RM450/tonne for goods sold.

As these payments primarily benefit titleholders, subsequent generations have pursued alternative economic pursuits. Examples of these livelihoods included small food stalls, food distribution, jarred produce, knife making, orchards, investments in FELDA-related companies, transportation and many others. The diversification of labour and pursuit of side-businesses has been actively encouraged by FELDA, suggesting that diversification of income is recognised as necessary for the sustainability of FELDA communities. This proved evident not only for subsequent generations, but also utilised to substitute title holders' primary incomes derived from plantations.

Support has been evident through FELDA's provision of start-up business loans. The provision of these loans are determined based on likelihood of success by a FELDA appointed board. Once the business is profitable, the loan is repaid in instalments. However, where businesses prove especially successful, the FELDA elected committee may declare the loan a grant, which no longer must be repaid.

As previously identified, plantation cultivation and harvest is perceived as an unattractive livelihood prospect, especially among the youth and those who have achieved higher levels of education. The outward migration and diversification of labour exhibits the community-identified necessity of adapting their assets to maintain a sustainable living. No longer is a livelihood based on the plantation structure adequate to sustain the large families prevalent in FELDA communities.

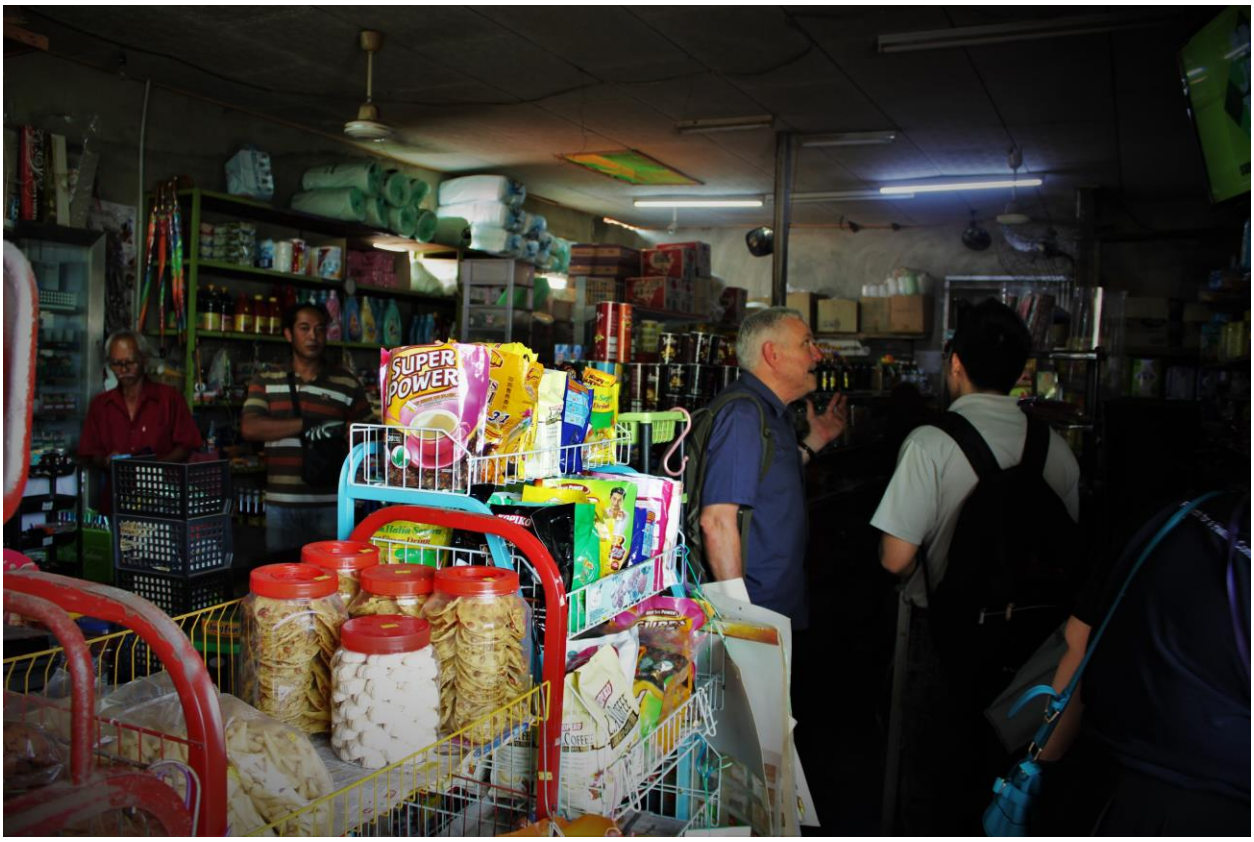

Figure 11: An independently run shop, providing a vast range of saleable items to the community in FELDA Community **4** in order to substitute primary income

Small Business & Entrepreneurship

Entrepreneurship proved strong in all FELDA communities, necessitated by the lack of sustainable incomes, particularly for those without land title. This issue is compounded by an average of five children per family, amplifying living costs.

Entrepreneurship has excelled with the recent introduction of free WIFI, assisting in the growth of online trading networks. The transect walk and in-depth interview process in FELDA

Community **1** emphasised the prevalence of the online network and the importance of online markets.

A prominent example was that of Participant **1** in FELDA Community **1** who utilised online social networks to market a product entitled *Wonder Cheese*. This product was transported from Kuala Lumpur to Segamat via public transport. Public transport proved the most effective method following a cost/benefit analysis, and subsequently led to the identification of online networks in amplifying marketing reach. While the food distribution business was currently a side income, the entrepreneur identified a desire to focus on growing the business to become a primary livelihood.

The prevalence of side employments and a diversification of labour was apparent in all the participating FELDA communities. However, participants also emphasised the competitively in the market, particularly for food products.

Figure 12: A small food stall in FELDA Community **2**

Contract Workers

Research unearthed that there were minimal subsequent generations and non-title holders working on the plantations, due to the undesirability of plantation labour to communities with increasing levels of education and ambition. The Malay individuals that did work on the plantations did so in a supervisory role. Due to the lack of local labour, most workers are contracted through a FELDA operated subsidiary, *Technoplant*. Participants were unable, or unwilling, to discuss many elements relating to foreign workers. The majority referred to all foreign workers as being of Indonesian origin. However, in FELDA Community **2**'s most recent committee meeting minutes, the workers were detailed as Bangladeshi, while the local community leader and a local FELDA representative stated they were of Indonesian descent. This suggests there may be a lack of community knowledge about the nature of foreign workers. All participants identified only a small number of foreign workers, a claim attributed by Participant **1** in FELDA Community **2**, to the recent transition from rubber to palm. No participants could provide specific details beyond references to *Technoplant*'s total control of the contract worker process, and none had apparently met any foreign workers.

The land title holder receives a guaranteed income, regardless of their involvement in the cultivation and harvest processes. Due to FELDA's dominant role in managing the plantation processes, particularly regarding labour, it has freed ample time for individuals to pursue the previously identified side-incomes and diversify their labour.

Figure 13: The fruit from a Palm Tree; palm oil is an edible vegetable derived from the fruit of this tree)

Social Committees

There have been numerous groups and committees in operation since FELDA communities were established, and they have proven a significant social asset. This is inclusive of women's groups, religious groups, sporting groups and youth groups, to name a select few. Due to the necessity of second and third generation villagers to pursue diverse livelihoods outside of traditional employments, these groups have increased in prominence.

One such group, typically formed during the community establishment years, is that of a governing committee (the JKKR). In the case of FELDA Community **2**, the JKKR had organised a community-wide saving scheme to build a committee office. This office was the centre of operations for all community-identified pursuits and challenges, retaining extensive documentation of all JKKR committee meetings and decisions. Further, in 2011, the JKKR of FELDA Community **2** had finalised the purchase of a community-owned tractor to improve harvesting and cultivation through a collective saving initiative. Through the social asset of the community committee, and the financial asset of collective saving, a significant physical asset was identified and purchased.

Another prominent example was that of a local women's committee. In FELDA community **4**, women had formed a collective to produce onion chips for festive occasions such as Hari Raya. Resulting profits were distributed based on time spent in active production. While a small economic collective, it exhibits the strong social support networks prevalent in these communities, identifying an economic opportunity and sharing in its resultant benefits. Notable was that chips were distributed in surrounding regions, not restricted to the immediate community, and word-of-mouth proved the primary form of marketing.

Religious, youth and sporting groups and committees facilitated social networks within and outside the community. Participant **7** in FELDA Community **2** highlighted his belief that religion and social interactions facilitated a fulfilling and sustainable livelihood. The importance of religion in facilitating the creation of public, social and human assets was evident in the existence of a mosque in every FELDA community visited, with participants highlighting religion's importance in the community.

Sporting and youth committees and groups facilitated a similar benefit, encouraging interaction within and outside the community. During the transect walk in FELDA Community **1** with Participants **7** and **8**, it became apparent that sporting activities were a significant element in promoting social assets, with FELDA support through the construction of sporting areas. All the committees identified that the participating FELDA communities proved integral in adding to human, public and social assets, providing an enhanced standard of living.

Figure 14: FELDA Community **1** Mosque; Religious Committees were fundamental in all communities

Discussion and conclusion

Through primary research, the field team has determined that the FELDA households draw upon a broad range of livelihood assets, which extends beyond the original agricultural intention of the FELDA scheme. While FELDA communities continue to depend upon the agricultural sector, which still constitutes the most significant income in communities, increasing levels of education have facilitated the diversification and development of new livelihoods.

Research has determined that there are generational differences in how households make a livelihood. The first generation were primarily reliant on income originating from FELDA, provided based on land title and agricultural production. The second generation illustrated a greater reliance on small businesses. While many first generation participants also had small businesses, they served as a supplementary income, rather than a primary income. Modern technology, including the internet, contributed to the viability of many small businesses within FELDA.

However, beyond the competitive market of small businesses, there is a lack of local employment opportunities, outside plantation labour, for the second and third generations. Outward youth migration appears to be significantly bolstered by the lack of employment opportunities, increased education and subsequent ambition, and favourable urban centre livelihood prospects. However, outward migration still contributes to livelihoods in FELDA communities through remittance payments.

It was found that males were more likely to emphasise financial assets, whereas females valued human and public assets, such as social networks and committees. Furthermore, men were more likely to engage in formal employment, whereas women were more likely to be housewives engaging in informal livelihoods. Informal livelihoods involved social organisations (either

voluntarily or for some financial compensation) and supplemented household incomes via personal enterprise. Overall, it was clear throughout all FELDA communities that sense of community was highly valued.

Recommendations

This report supports five recommendations, each of which have been formed on the basis of concerns raised by members of the FELDA communities, and in response to patterns apparent in the data.

1. **The provision by FELDA of additional skills training programs**, such as through technical training schools, apprenticeships or mentorship programs. Providing local training programs would address two key concerns made evident in the data. Firstly, it may stem out-migration of the younger generation, and therefore preserve the long term viability of the FELDA communities. Secondly, it may increase the viability of alternate revenue streams, outside the agricultural sector, such as in micro-enterprises and online businesses.
2. **Establishment of additional local industry,** such as small-scale manufacturing or light industry, in order to provide local jobs for second/third generations outside plantation labour. This would promote diversification of the local economy and reduce reliance on plantation revenue, as well as, reduce out-migration of younger generations. Further, it may encourage return-migration of those who have achieved higher levels of education.
3. **Development of an ethical system** suited to the management of migrant-sourced plantation labour. As previously alluded to in this report, FELDA is becoming increasingly reliant on contracted migrant plantation workers in order to fulfil the labour deficit created by the exodus of second and third generation settlers away from FELDA

communities. As this process continues, FELDA becomes increasingly reliant on migrant labour, and there is the potential that current systems (managed through *Technoplant),* may at some point facilitate labour exploitation. This report recommends FELDA take the necessary precautions and establish sufficient processes of checks and balances to mitigate the risks of such occurrences.

4. **Establishing mechanisms in the community to cope with external shocks.** FELDA may consider creating, within its management committee, an assessment on how the community will deal with external shocks, inclusive of elements such as drought and fluctuations in international markets for the palm oil industry. The assessment would need to be ongoing to establish contingency plans supportive of individuals at the community level. This would assist in ensuring communities are not adversely affected by unexpected shocks that would diminish their ability to maintain a livelihood.
5. **A long term strategy to transition away from palm.** Recently there has been a global shift away from palm, highlighted by Unilever, Mars and Kellogg's disassociation with the second largest Malaysian palm oil supplier, by production, due to deforestation (Straits Times, 2016). FELDA may consider establishing a long term plan to transition away from palm, perhaps through identification of alternative crops or other feasible income generation schemes for FELDA communities. The long term strategic transition need not only be mindful of economic growth, but mindful of environmental sustainability in order to reduce susceptibility to potential future withdrawal by international business partners.

The proposed recommendations provide a feasible basis on which to pursue sustainable business practices for FELDA, allowing for economic growth as well as sustainable livelihoods for FELDA communities.

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Appendices

Appendix A - FELCRA

The research team nor the translators were expecting to interview a FELCRA group and yet it occurred.

In summary: -

FELDA's are larger and more developed in scale. FELCRA's are a poorer, secondary version of FELDA. The FELCRA interviewed was located close to the FELDA the research team was located in for the previous session. The participants arrived at the location having been given the time and location. They were no wiser to the research teams ambivalence and this section will not delve into the potential reasons as to why it occurred as there is no grounding framework.

The session highlighted that the kindergarten is the only schooling available in their village. After this point the children need to commute to the FELDA primary and high schools.

The group had similar focuses on the key themes, mentioned above.

Additionally, this second tier village had no health clinic. The mobile clinic is available on a fortnightly basis. For all other health related necessities the participants needed to commute to large metropolitan centres.

In terms of access to other resources the women travel frequently, up to two to three times a week, to Segamat. Due to a non existence of public transport they all drive. They need to access the larger town as the grocery facilities are limited in their village; there are only a couple of foods stalls. Further, to highlight the disparity there is a mosque and a common hall. However, the system entails that one resident carries the sole key for the common hall. If another resident wants to use the hall they have to make an appointment that fits into the key holders schedule.

The participants want better access to resources in their village. As opposed to FELDA wifi is poor and paid for. The participants state that they desire a computer centre and other stores that would make things more convenient, similar to FELDA. At the moment young people are asked to get groceries for the older residents due to the distances that are needed to be travelled. They have a close community, which is banded together with a high degree of social support.

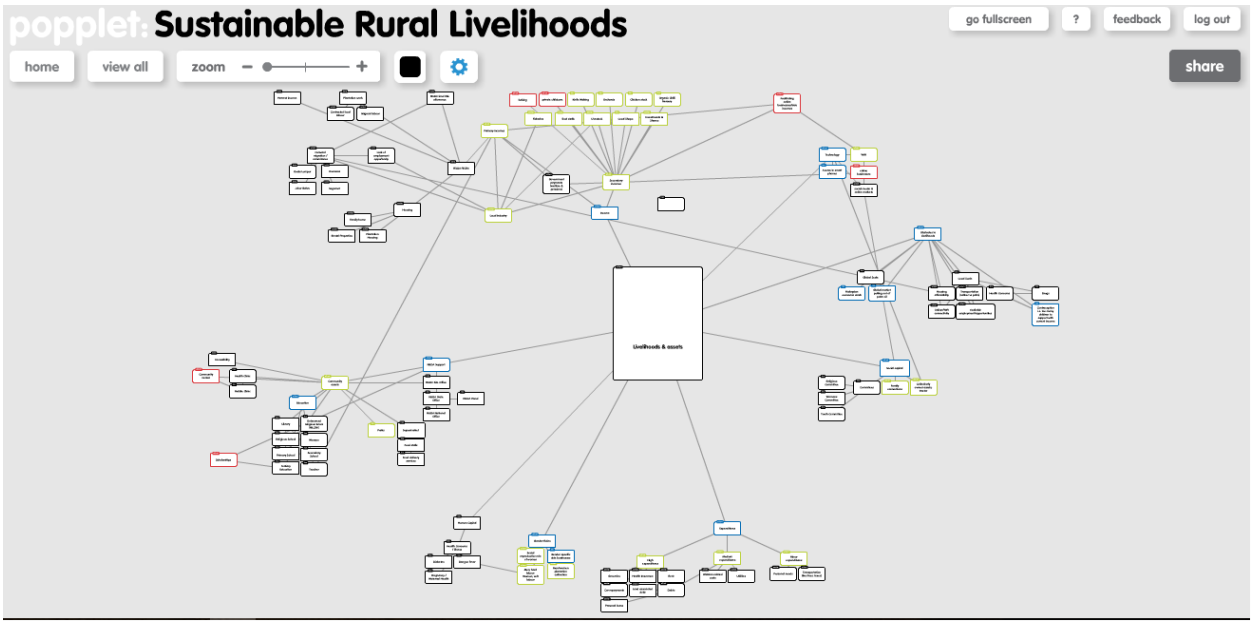
There are no libraries available either. All of the facilities in the community are of a poor standard compared to FELDA. Due to this the fear of the participants is that their children do not have a desire to study because there are no facilities that promote learning. The previous common areas have fallen into a state of disrepair and are poorly managed.

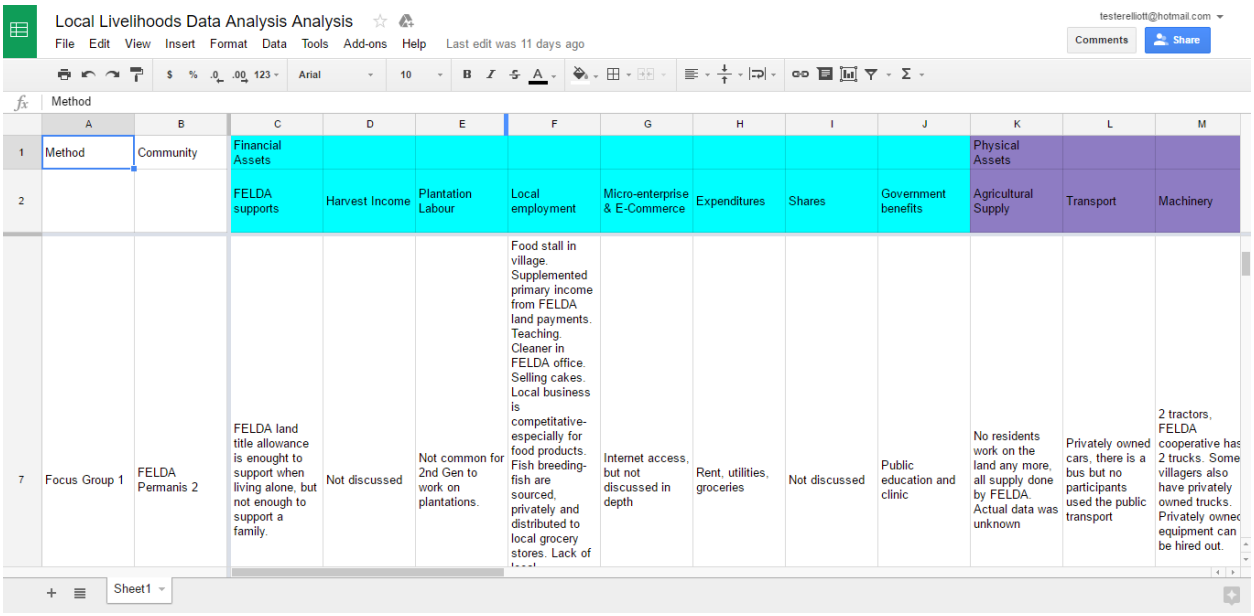
Reflections

An overarching issue is that any possible improvements that the participants would like to be made in their village would be pointless as there is no one available to work in any new buildings or businesses that are created.

The session highlights to a greater extent the disparity between those who have access to resources and the land title in FELDA's in comparison to all others. This includes FELCRA, generations 2 and 3. The research team has decided not to elaborate further in this study, however it does open avenues for additional research.

Appendix B - Data Analysis; Popplet Mind Map and Matrix Snippet





Local Livelihoods Data Analysis Analysis

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Method

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Method	Community	Financial Assets								Physical Assets		
2			FELDA supports	Harvest Income	Plantation Labour	Local employment	Micro-enterprise & E-Commerce	Expenditures	Shares	Government benefits	Agricultural Supply	Transport	Machinery
7	Focus Group 1	FELDA Permanis 2	FELDA land title allowance is enought to support when living alone, but not enough to support a family.	Not discussed	Not common for 2nd Gen to work on plantations.	Food stall in village. Supplemented primary income from FELDA land payments. Teaching. Cleaner in FELDA office. Selling cakes. Local business is competitative- especially for food products. Fish breeding- fish are sourced, privately and distributed to local grocery stores. Lack of	Internet access, but not discussed in depth	Rent, utilities, groceries	Not discussed	Public education and clinic	No residents work on the land any more, all supply done by FELDA. Actual data was unknown	Privately owned cars, there is a bus but no participants used the public transport	2 tractors, FELDA cooperative has 2 trucks. Some villagers also have privately owned trucks. Privately owned equipment can be hired out.

Sheet1

Appendix C- Ethics (Sourced from the Project Proposal)

- *Principles for Ethical Research and Evaluation in Development* (Australian Council For International Development [ACFID] 2013)
- *Ethical Research and Approvals: Research Involving Human Participants Procedures* (Monash University 2014)
- *Guidelines for Ethical Research and Evaluation in Development* (ACFID 2015)

The above ethical guidelines outline a responsibility in designing and conducting research in adherence to the principals of honesty, integrity, fairness and impartiality in an attempt to protect the welfare, rights and dignity of all stakeholders (ACFID 2013; ACFID 2015). Monash University expressly states that researchers must ensure confidentiality, privacy and cultural sensitivity in research (Monash 2014).

Power imbalance

One of the most significant ethical considerations is the acknowledgement of power relations in data collection, particularly between those conducting research and those participating as respondents. Reflexivity will be utilised in scrutinising how researcher's actions and perspectives may affect the data collected, formulating solutions to mitigate any influence on respondents (Guillemin & Gillam 2004; Laws et al. 2013). To nullify power imbalances, there will be a commitment to forming an empowering relationship between respondents and researchers, with an acknowledgement of local knowledge and the promotion of stakeholder ownership of outputs (Guillemin & Gillam 2004; Hugman et al. 2011). To further encourage this research partnership, final materials will be circulated among stakeholders prior to publishing to ensure their informed and ongoing consent.

Informed and ongoing consent

To ensure informed and ongoing consent, it is necessary respondents understand all elements of the research process (ACFID 2013). To facilitate understanding, communication will be pursued in clear and simple language, with care to avoid patronising tones, and respondents asked to summarise the research process in their own words (Guilleman & Gillam 2004; Hugman et al. 2011). Consent will be requested throughout the research process, ideally prior to commencement, at a mid-point and upon completion, allowing participants to withdraw at any time (Guilleman & Gillam; Hugman et al. 2011).

Participatory inclusion

There is an ethical responsibility to ensure equal representation of all stakeholders in research (Laws et al. 2013). Individuals in a position of power can dominate data collection, as well as have greater ability to determine their participation, therefore necessitating the promotion of vulnerable voices in this study (Woodley & Lockard 2016). To provide a voice for the voiceless, particular care will be taken in the aforementioned sampling method to ensure equal representation of the specifically targeted communities.

Harm

The relevant ethical guidelines underline the responsibility to minimise any and all physical, psychological, economic or social harm to respondents (Laws et al. 2013; Monash 2014). In this research context, economic and social harm may prove the most prominent. Community involvement involves sacrificing time, which can negatively impact income generation, and possibly limit those who can participate (Mduluza et al. 2013). To mitigate such harm, SEACO provides RM20 for each individual who participates. Further, to reduce costs associated with travel, and ensure data collection methods are undertaken in comfortable and safe surrounds, the researchers will personally visit communities (Laws et al. 2013).

While harm can undoubtedly befall respondents, it is important to identify that traumatic narratives may similarly impact upon researchers (ACFID 2013). Debriefing following research will be utilised in an attempt to mitigate this risk.

A final risk could present itself in the form of social harm, whereby respondents prove critical of social, political and power structures relevant to the community. To mitigate such risks, strict confidentiality and anonymity will be pursued.

Confidentiality

It is imperative that all researchers ensure confidentiality, privacy, and cultural sensitivity in pursuing research (Monash 2014). All data collected will be treated with strict confidentiality. Names will be omitted and care taken to ensure respondents remain unidentifiable. As previously stated, identification can cause harm, or aggravate pre-existing harm if respondents provide data of a contentious nature (Guillemin & Gillam 2004).

Interpreter ethics

The proposed research will utilise interpreters to facilitate communication and act as ethnographic guides. While the use of interpreters will be highly beneficial in understanding social and political contexts and eliciting additional meaning in their role as ethnographic guides (Burja 2006), there are a number of ethical concerns. Prior to commencing any interview process, it is imperative to build a relationship with the interpreter and ensure their understanding of the intended research focus (Bujra 2006). Further, it is necessary to ensure their commitment to respondent confidentiality and of their adherence to professional impartiality, inclusive of interpretation of all communication between parties, with no meaning omitted (Bujra 2006). Following data collection, it will prove invaluable to debrief with the interpreter, asking their opinion on the session and collecting any additional information they may be able to provide (Bujra 2006).

Anticipated Project Benefits

Following the principle of beneficence, research must be undertaken for the benefit of others, justifying any possible harm (ACFID 2013). Benefits may prove to be direct or indirect, contributing to the community and participants themselves, or to larger projects, policy or general development discourse/practice (ACFID 2013; Molyneux et al. 2012).

In this research context, it is unlikely that participants will directly benefit. However, contribution to the body of research may promote feelings of utility and contributing positively to societal development (Dyregov 2004; Molyneux et al. 2012). The contribution to this shared body of knowledge in an attempt to improve this community, among others, is the foremost identified benefit of this research.