

KUMPULAN PENGURUSAN KAYU KAYAN TERENGGANU SDN BHD

(KPKKT)

PESAMA TIMBER CORPORATION SDN BHD

(PESAMA)

**REPORT ON SOCIAL IMPACT ASSESSMENT (SIA)
OF THE SUSTAINABLE FOREST MANAGEMENT (SFM) OF DUNGUN TIMBER
COMPLEX (DTC) & CHERUL FOREST CONCESSION (CFC), MANAGED UNDER
THE 2ND ROTATION OF THE MALAYSIAN SELECTIVE
MANAGEMENT SYSTEM (SMS)**

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Table of Contents

EXECUTIVE SUMMARY iii

ACKNOWLEDGEMENT vi

ABBREVIATIONS AND ACRONYMS viii

SECTION 1..... 1

INTRODUCTION..... 1

APPROACH AND METHODS..... 1

1.0 Approach and Methods 1

SECTION 2..... 5

BACKGROUND 5

2.1 Company Introduction 5

SECTION 3..... 10

SOCIAL IMPACT ASSESMENT (SIA)..... 10

3.1 The Survey 10

3.2 Section A: Demographic Profile of Respondent..... 12

3.3 Section B: Respondent Basic Village Information 16

3.4 Section C: Respondent Dependency on Forest Resources 18

3.5 Section D: Monitoring Controls..... 19

3.6 Section E: Social & Health Welfare 19

3.7 Section F: Economy & Material Welfare 20

3.8 Section G: Cultural Values of Local Communities 20

3.9 Issues for consideration..... 21

SECTION 4..... 23

SUMMARY AND RECOMENDATIONS 23

4.1 Summary and Recommendations on Mitigation Measures 23

REFERENCES 25

ANNEX..... 26

EXECUTIVE SUMMARY

This Social Impact Assessment (SIA) on the sustainable forest management (SFM) on Dungun Timber Complex (DTC) and Cherul Forest Concession (CFC) in the State of Terengganu, Malaysia, represents a follow up to an earlier SIA report prepared in 2009, 2013, 2017 and 2020 same site and subject. It has always been the intention of Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT) and Pesama Timber Corporation Sdn Bhd (PESAMA) as the manager and operator of SFM within DTC and CFC since nearly four decades ago, to continue to conduct such survey and assessment periodically from time to time and to see to it that the interest of the forest-dependent communities that live within the vicinity of DTC and CFC are well-catered for, by following as closely as possible the recommendations laid out in the SIA reports. At the moment, this SIA report will be combined between KPKKT and PESAMA to maximize the data collection and interpretation.

The idea of the SIA is to enable KPKKT and PESAMA to continue to monitor and gauge and be mindful of all the positive as well as negative impacts to the local stakeholders, of the series of forestry activities and operations that make up what is called the Selective Management System (SMS) within DTC and CFC. KPKKT and PESAMA also maintains close relationship and rapport with other relevant interest groups, government agencies, academia, as well as non-governmental organisations (NGOs) to solicit their professional inputs on relevant issues raised by the affected local communities and act on them as appropriate.

In this way, KPKKT and PESAMA hopes to be able to conduct its SFM activities in an informed and more-or-less transparent manner while at the same time carrying out the appropriate mitigative and corrective measures commensurate with the scale and intensity of the company's SFM operations. Such SIA initiative also serves to fulfil one of the Forest Stewardship Council (FSC)'s Principles and Criteria for forest stewardship to which KPKKT and PESAMA subscribes. Since 2008, KPKKT and PESAMA had been committed to follow and abide by FSC P&C which form the basis of FSC certification standards.

Among others, findings from the present SIA survey showed that most of the local villagers still live-in poverty with about 50 per cent of them surviving on a level of income that is below national rural Poverty Line. Unemployment rate remained high despite a reasonably respectable literacy rate and a sound level of education of the people. Job opportunity is sorely lacking. This has subsequently forced a section of the local community to rely on DTC and CFC forests for supplies of forest produce such as freshwater fishes and other non-timber forest

produce (NTFP) as well as timber for construction material. Approx. 73 per cent of the people harvested the various forest produce for their own consumption while some 27 per cent engaged in the business and trade of them.

The villagers also had had mixed perceptions on the impacts of SFM activities on the forest and environment and generally showed deep concern on the natural resource, while others expressed their satisfaction and support to KPKKT and PESAMA for its sound and responsible management of DTC forests. Among the main challenges faced by KPKKT and PESAMA in the future include the need to maintain a continued compliance with FSC Principles and Criteria of Forest Stewardship, along with all the tenets of SFM which call for the maintenance of a cordial and healthy rapport with local stakeholders through a strategy that gears towards a heightened public awareness and enhancement of their economic well-being. A series of other recommendations are also outlined in this SIA report which would enhance the positive values while mitigating the negative impacts of SFM operations within DTC's forests. In this way, KPKKT and PESAMA would be able to contribute in a more positive and meaningful manner towards the welfare of the local population in a spirit of co-existence and mutual respect, while meeting the original social objectives of its establishment and operation.

ACKNOWLEDGEMENT

I would like to extend my deepest gratitude to Golden Pharos Berhad (GPB) for their unwavering support and collaboration over the years. As a stalwart in the industry since its incorporation in 1986, GPB has demonstrated a steadfast commitment to excellence and sustainability. GPB's listing on the Main Board of Bursa Securities Malaysia Berhad since 1993 underscores its dedication to transparency and accountability, serving as a beacon of integrity in the marketplace.

Furthermore, as a Government-Linked Corporation (GLC) of Terengganu, GPB exemplifies a harmonious blend of corporate responsibility and state stewardship. I acknowledge the pivotal role played by Terengganu Incorporated Sdn Bhd and Lembaga Tabung Amanah Warisan Negeri Terengganu, whose significant shareholdings in GPB highlight the synergy between public and private sectors in driving economic growth and development. GPB's diverse portfolio, encompassing forest concession management, wood-based product manufacturing, and architectural panel glass sales, reflects its versatility and adaptability in meeting market demands while upholding environmental stewardship.

I would like to extend my sincere gratitude to the management of KPKKT and PESAMA for their unwavering support and collaboration throughout the duration of this project. Their commitment to excellence and dedication to our shared goals have been instrumental in achieving our objectives to carry out the social impact assessment of the sustainable forest management (SFM) operations within the Dungun Timber Complex (DTC) and Cherul Forest Concession (CFC).

I would like to express my appreciation to operations crew members to encompass the diverse range of programs and activities systematically planned and conscientiously executed on the ground. I would like to thank the ground crew for their valuable contributions, guidance, and expertise. Their insights and assistance have significantly enriched our work and ensured

its success. This choice of aims to portray leadership for their vision and encouragement, which have inspired me to strive for excellence and innovation. KPKKT and PESAMA as stewards of responsible forest management, prioritizing sustainability over mere profit-driven logging activities.

I also extend my thanks to all the collective efforts of KPKKT, PESAMA, their staff, contractors, and the Terengganu State Forestry Department (TSFD) exemplify the professionalism and dedication demanded by the discipline of SFM who have contributed directly or indirectly to this endeavour. Their collective efforts have been crucial in overcoming challenges and realizing the aspirations. Besides that, the harmonious collaboration and mutual respect demonstrated by local residents and relevant agencies underscore the importance of stakeholder engagement in fostering sustainable practices.

Over the years, the SIA report conducted by KPKKT in DTC and PESAMA in CFC have not led to any discernible conflicts with local residents. Instead, a culture of mutual respect and cooperation has prevailed, enabling both entities to conduct their business smoothly while minimizing adverse impacts on the environment, wildlife, and communities. The positive rapport between KPKKT, PESAMA, and local villagers serves as a testament to the spirit of goodwill and coexistence, which remains steadfast. It is with profound gratitude that we recognize the KPKKT, PESAMA, and local villagers for their partnership and support, which have been integral to the achievements of this project.

Finally, I would like to thank KPKKT's Deputy General Manager, Mr Ahmad Bazli Razali, as well as General Manager of PESAMA, Mr Hilmi Awang and others who had been of such great help during the preparation of this report.

Thank you.

Sincerely,

Vinotheni Krishnan

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ABBREVIATIONS AND ACRONYMS

DBH, dbh	diameter at breast height
C.L.	Cutting limit
DTC	DUNGUN TIMBER COMPLEX
CFC	Cherul Forest Concession
CPRF	Cherul Permanent Reserved Forest
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
FELDA	Federal Land Development Authority
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FMP	Forest Management Plan
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GLC	Government-Linked Company
GPB	Golden Pharos Berhad
HCVF	High Conservation Value Forest
HCVFMP	HCVF Management Plan
JaKOA	Jabatan Kemajuan Orang Asli (Aborigine People Development Department)
JPNT/ TSFD	<i>Jabatan Perhutanan Negeri Terengganu/ Terengganu State Forest Department (TSFD)</i>
KETENGAH	Lembaga Kemajuan Terengganu Tengah (Central Terengganu Development Authority)
Kg	<i>Kampung</i> (Village)
KPKKT	Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd
OSH	Occupational Safety and Health
m.a.i.	mean annual increment
PCT	Potential Crop Tree
PERHILITAN	Jabatan Perlindungan Hidupan Liar dan Taman Negara (Wildlife Protection and National Parks Department)
PLI	Poverty Lime Income
PPE	Personnel and Protective Equipment
PRF	Permanent Reserved Forest
Pre-F	Pre-Felling (Inventory)
R&D	Research and Development
RIL	Reduced Impact Logging
RISDA	Rubber Industry Smallholders Development Authority
SFM	Sustainable Forest Management
Sg.	Sungai (River)
SIA	Social Impact Assessment
SMS	Selective Management System
TKL	<i>Tanaman Kawasan Lapang</i> (Open Area Planting)

TM	Tree Marking
TRF	Tropical Rain Forest
TSI	Timber Stand Improvement
UPM	Universiti Putra Malaysia
WWF- Malaysia	Worldwide Wildlife Fund – Malaysia Office

**Report on Social Impact Assessment (SIA)
on the Sustainable Forest Management (SFM) of Dungun Timber Complex (DTC) and
Cherul Forest Concession (CFC) Managed Under The 2nd Rotation of The Selective
Management System (SMS)**

SECTION 1

INTRODUCTION

APPROACH AND METHODS

1.0 Approach and Methods

Social Impact Assessment (SIA) is a systematic process used to evaluate the potential social effects of a proposed project, program, policy, or activity on the surrounding communities, stakeholders, and broader society. The primary objective of an SIA is to identify both positive and negative social impacts and provide recommendations for mitigating adverse effects and enhancing positive outcomes.

Key components of a social impact assessment typically include stakeholder engagements, data collections, impact identifications and assessments, impact predictions, risk opportunity analysis, risk mitigations and management measures, monitoring and evaluations, public participants, ethical considerations, capacity building and reporting and documentations. A social impact assessment (SIA) is usually conducted for this purpose at regular intervals or whenever the need arises, for the purpose of identifying, assessing, gauging and monitoring the impact of a project on the surrounding community, and to recommend appropriate mitigation and improvement measures.

Social Impact Assessment (SIA) is a critical process for recognizing and managing the immediate and long-term societal effects of projects. It enhances the Corporate Social Responsibility (CSR) model in forest management by employing tools for measurement, evaluation, and reporting. The goal is to foresee and mitigate adverse impacts while maximizing benefits for local communities and society.

Since 2009, KPKKT and PESAMA have been conducting SIA exercises to address local community welfare concerns. They've tackled issues like subpar river water quality, wildlife-related crop damage, and road safety for school children. KPKKT has developed targeted mitigation strategies through ongoing dialogue with authorities and community members. Committed to continuous improvement, KPKKT annually reviews its impact on social and economic environments to refine its processes.

Since 2008, KPKKT has proudly maintained the FSC® certification for its DTC concession, reflecting its long-standing commitment to responsible forest management. In 2012, PESAMA earned the FSC® certification for its CFC concession, further solidifying the Group's dedication to high forest management standards. For strategic consolidation, to professionally and sustainably manage the distinctive tropical forests in the DTC and CFC concessions, GPB has strategically merged their management under KPKKT. This includes unifying the FSC® certifications, ensuring that both ecosystems and their biodiversity are preserved according to the highest local and international standards.

The Golden Pharos Group is committed to working closely with all pertinent stakeholders and organizations. The aim is to guarantee adherence to the principles of exemplary forest management as outlined by the Forest Stewardship Council (FSC®) and the Malaysian Criteria and Indicators (MC&I) for Forest Management Certification (Natural Forest).

Since April 21, 2008, KPKKT has been recognized with the FSC® certification by SCS Global Services, a global leader in third-party forest management auditing and certification. This certification confirms that KPKKT's Dungun Timber Complex (DTC), spanning 106,031 hectares, adheres to the stringent international FSC®

standards, employing a selective cutting strategy that ensures ongoing forest coverage and species diversity.

Furthermore, Pesama Timber Corporation Sdn Bhd (PESAMA) was awarded the FSC® certification for its 20,243-hectare Cherul Forest Concession (CFC) on December 10, 2012, by SCS Global Services. The combined DTC and CFC concessions under KPKKT and PESAMA represent the most extensive forest areas in Peninsular Malaysia to hold the FSC® certification, with DTC being the second natural forest in Malaysia to earn this honour.

In a strategic move to promote efficient, cost-effective, and sustainable management, the Group has unified the FSC® certifications and management of the DTC and CFC concessions under KPKKT. This consolidation, completed on September 5, 2021, aims to ensure the tropical forests' resources and ecology are conserved indefinitely, in line with the highest local and international standards.

At Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT) and Pesama Timber Corporation Sdn Bhd (PESAMA), a series of social impact assessment of the company's sustainable forest management (SFM) programmes and activities within its 126,274ha, long-term forest management unit (FMU) of Dungun Timber Complex (DTC) and Cherul Forest Concession (CFC) in Terengganu. SIA report been conducted at Bukit Besi, Dungun and Kemaman. At first it was planned to recruit 200 respondents but the management only able to recruit around 181 which is 31 of the respondents is from Kemaman and the remaining respondent is from Bukit Besi, Dungun.

The present initiative therefore seeks to present a review and update of the earlier reports by incorporating findings from surveys conducted on the stakeholders namely the local communities living in villages in the vicinity of DTC and CFC. In

conducting this SIA, the following approaches were used for data collection and information gathering:

- i. Reviews of past reports, papers and records relevant to the subject
- ii. Analyses of available secondary data on local socio-economic condition
- iii. Consultations with local community leaders, workers and other stakeholders
- iv. Surveys of sample populations of local households and workers.
- v. Deliberations with the management of KPKKT.

Social Impact Assessment (SIA) report is crucial for management as it provides a comprehensive analysis of the potential social impacts of a project or initiative as SIA helped management to make informed decision making as the report help in strengthen the company and also in conducting community programs. The SIA helps identify potential negative impacts before they occur, allowing for the development of strategies to mitigate risks. It also promotes transparency and accountability by involving stakeholders in the decision-making process, which can lead to better community relations and support for the project. By assessing the social environment, management can ensure that their projects align with sustainable development goals and corporate social responsibility standards. Overall, an SIA report aids management in understanding the social dynamics related to their projects and in taking a responsible approach to business practice.

SECTION 2

BACKGROUND

2.1 Company Introduction

Golden Pharos Berhad (GPB), established in 1986 with total staff of 448 staff, is a public company featured on the Main Board of Bursa Securities Malaysia Berhad since 1993. It operates as a Government-Linked Corporation of Terengganu state, with a 69.092% shareholding through Terengganu Incorporated Sdn Bhd and Lembaga Tabung Amanah Warisan Negeri Terengganu, holding 60.925% and 8.166% shares, respectively. GPB's core operations encompass the management of forest concessions, timber harvesting and distribution, sawmilling, enhancing wood-based products, and the production and marketing of architectural panel glass.

Since its foundation in 1986, Golden Pharos Berhad (GPB) has grown and diversified as an investment holding company, driving economic development in Malaysia's East Coast. Predominantly owned by Terengganu Incorporated Sdn Bhd, the investment arm of the Terengganu State Government, GPB was publicly listed on the Main Board of Bursa Malaysia Securities Berhad in 1993, under the Industrial Products and Services sector. Based in Kuala Terengganu, GPB prides itself on being a distinguished entity, dedicated to enhancing its core operations in harvesting and sawmilling, as well as manufacturing. Forest concession management timber harvesting and distribution managed by Kumpulan Pengurusan Kayu Kayan Trengganu Sdn Bhd (KPKKT) and Pesama Timber Corporation Sdn Bhd (PESAMA).

Kumpulan Pengurusan Kayu Kayan Trengganu Sdn Bhd (KPKKT), based in Bandar Bukit Besi, Dungun, was established in 1980. It manages the Group's timber concessions, spanning roughly 126,274 hectares of lush tropical rainforest in

Terengganu. This includes 106,031 hectares within the Dungun Timber Complex and 20,243 hectares at the Cherul Forest Concession. KPKKT which is one the **6 subsidiary** companies under the Terengganu state-owned enterprise Golden Pharos Berhad (GPB) manages the timber concession area of Dungun Timber Complex (DTC) following the tenets of Sustainable Forest Management (SFM) principles as laid out in KPKKT's long term Forest Management Plan (FMP) which covers a 30-year period, from 2008 – 2037. The latter represents the second cycle of KPKKT's management of DTC under the Malaysian Selective Management System (SMS). All of the prescriptions contained in the FMP were formulated in such a way as to accommodate as much as possible the current as well as anticipated future changes in local and global attitudes and trends in the approaches towards forest resource management, biodiversity conservation, climate amelioration and environmental protection.

The management of DTC by KPKKT complies with the environmental management standards as laid out by the relevant authorities, namely the Terengganu State Department of Forestry (TSFD). In this context, appropriate environmentally-benign forest management standards and practices have been and will continue to be duly observed by KPKKT in all of its forest management activities and field operations, in order to minimise potential negative environmental and social impacts of such operations. DTC was recognised and certified by the internationally-renowned Forest Stewardship Council (FSC) as a “Well-Managed Forest” since April 2008 after successfully complying all 10 FSC's Principles and Criteria of Forest Stewardship (FSC P&C). This certification was subsequently renewed for a further five years as from 2020. As of the date of this report (April 2024), KPKKT employs a total of 83 staff comprising 70 males and 13 females. Of these, about 12% work at the management level (Deputy GM, Head of Department, Assistant Manager Operation,

Assistant Managers and Forest Executives), and 88% at the technical level (Forest Supervisors, Foresters and Machine Operators). The high proportion of technical staff reflects the importance attached by KPKKT on field and R & D operations. For road construction, tree felling and timber extraction, KPKKT engages a total of 6 contractors.

Pesama Timber Corporation Sdn Bhd (PESAMA), founded in 1973 and situated in the Jakar Industrial Area of Cukai, Kemaman, is a fully owned subsidiary of Golden Pharos Berhad (GPB). With a skilled team of over 79 employees, PESAMA oversees key operations such as sawmilling, moulding, kiln drying, and wood treatment. The company's products are sourced from the Group's sustainable forest concessions, ensuring a steady supply of raw materials, and are supported by globally recognized certifications affirming our commitment to sustainable forest management and eco-friendly practices.

PESAMA Timber Corporation Sdn Bhd (PESAMA) has its premise located just on the northern bank of Kemaman River in Kemaman District, Terengganu, and on the right-hand side of the Kuantan – Kemaman trunk road, heading north. The company is one of the subsidiaries of the Terengganu State Government - linked company (GLC) Golden Pharos Berhad (GPB) and manages the 20,243-ha Cherul Forest Concession (CFC) which constitutes part of Cherul Permanent Reserved Forest (PRF), Terengganu since the company's establishment in late 1970's. The current management of the natural tropical rain forest (TRF) within CFC is based on the principles of sustainable forest management (SFM) and follows the dictates of a long-term Forest Management Plan (FMP) which covers a 30-year period from 2009 till 2038.

Pesama's FMP calls for the company to adopt and strictly follow the instructions laid out under Malaysian Selective Management System (SMS), under the

guidance and supervision of the Terengganu State Forestry Department (TSFD), and with strong professional and technical inputs from PESAMA's sister company the Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT). At the present going, the practice of SMS within CFC is now well into the second rotation of implementation. The first round (for example, rotation) of timber harvesting under the SMS's first 25-year rotation was completed in 2001 involving virtually all the productive virgin forest stands within the Production Forest category. For the second rotation, it has been decreed by the Terengganu State Forestry Department (TSFD/JPNT) that, as a precautionary and conservative measure, a new period of 30 years should be used and to be implemented within this FMU.

Due to the professional and sound management of the forest by Pesama, CFC was successfully accredited and certified by the Forest Stewardship Council as a "well managed forest" in 2012. The conduct of this SIA is part of a continued effort by PESAMA maintain its compliance with one of FSC's Principles and Criteria of Forest Stewardship. At Pesama, about 12.66% work at the management level (General Manager, Head of Department, Executive Operation, Assistant Managers and Marketing Executives), and 87.34% at the technical level (Factory Supervisors and Machine Operators). The high proportion of technical staff reflects the importance attached by KPKKT on field and R & D operations. For road construction, tree felling and timber extraction, KPKKT engages a total of 6 contractors.

The 7-person management team of PESAMA consists of 1 General Manager who is assisted by 1 HR Executive, 1 Account Manager, 1 Marketing Executives, 1 IT Executive, 1 Operation Executive, 1 Safety & Health Executive. They are supported by 3 clerical-level staff who handle ices in documentation and filing. The tasks in the field are accomplished by a combined team from both PESAMA (4 persons) and KPKKT (3 persons).

SECTION 3 SOCIAL IMPACT ASSESMENT (SIA)

3.1 The Survey

The main objective of this social impact assessment was to appraise the various programmes and activities conducted by KPKKT and PESAMA and its appointed contractors under the guise of SFM and SMS within DTC forests and CFC forest with the view of analysing and evaluating their impacts to the surrounding communities, so as to enable KPKKT's management as well as the relevant parties to gauge the relevance and effectiveness of those programmes and activities in terms of their positive as well as negative impacts to the affected communities.

Consequently, through the knowledge and understanding gained from such analyse would help ensure that the design and implementation of the SFM project within DTC and CFC could be further mitigated, improved and enhanced and encourage relevant interest groups, especially residents of the surrounding villages and other disadvantaged social groups, to participate in and benefit from this project, to the extent possible. At the same time, the social assessment also identifies and analyses the social risks and opportunities of different interest groups. A set of data and information of the baseline survey have been established through this social assessment, as a reference for future monitoring and evaluation. Specifically, the SIA was aimed at:

1. identifying the project's benefits (and probable adverse effects) for the different beneficiary groups and to make suggestions/recommendations on how to enhance project benefits while at the same time reducing the potential adverse effects;

2. identifying and understanding the obstacles that hinder local communities from participating in project activities;
3. analysing and proposing the approaches for mitigating the negative social impacts of the logging area;
4. analysing and proposing the stakeholder groups to actively participate in the project.

Data was collected based on questionnaire interviews conducted randomly on residents of few major villages and settlements in the vicinity of DTC and CFC area as in presented in table form below. The interview schedule is as shown in appendixes. Respondents were chosen at random due to constraints imposed by time, access, logistics and other factors. This resulted in our team managing to interview a total of 181 respondents who are distributed almost evenly from the few villages in the vicinity of DTC and CFC villages. Figure 13 below shows on how the survey and this report is conducted and organizations of the study.

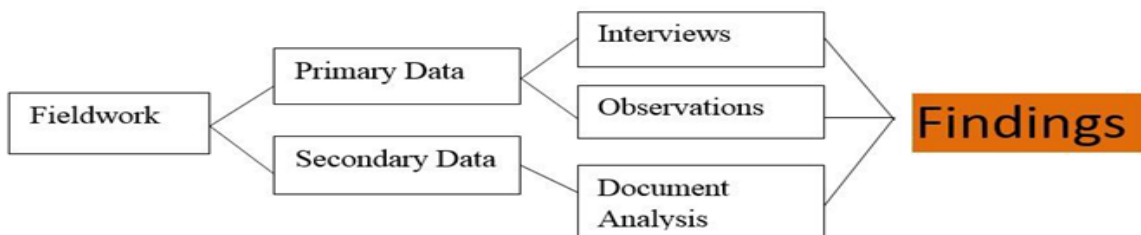


Figure 1: *Organization of the Study (Adapted from Ramle et al. 2014)*

3.2 Section A: Demographic Profile of Respondent

Tables below provide summaries of the demography profiles of respondents at the time of the survey. Details of the profiles which is age, sex, race, religion, education level, marital status, type of work, monthly income individual, total household and total household income when understood in their proper context would provide some indications on the level and quality of life of the respondents, their level of literacy and their social environment which are in turn reflected in their answers to the questionnaires.

No.	Age Group	Frequency, <i>f</i>	Percentages (%)
1	15 years old – 18 years old	8	4.4
2	19 years old – 38 years old	60	33.1
4	39 years old – 48 years old	41	22.7
5	More than 49 years old	72	39.8
Total		181	100.0

Table 1: *Breakdown of Respondents by Age Groups*

Table 1 above shows on breakdown of 181 respondents by age factors. In terms of age distribution, respondent within the range 19 years old to more than 49 years old shows percentages of 95 percent with highest involvement in the survey. Respondent with age 15 years to 18 years old marks lowest involvement in the survey.

No.	Sex Group	Frequency, <i>f</i>	Percentages (%)
1	Male	119	65.7
2	Female	62	34.3
Total		181	100.0

Table 2: *Breakdown of Respondents by Sex Group*

In term breakdown of respondent by sex group shows that nearly 65 per cent of the respondents where females with the remaining 35 percent are males that took part in this study as per shown in Table 2 above.

No.	Race & Religion	Frequency, <i>f</i>	Percentages (%)
1	Malay (Islam)	180	99.4
2	Chinese (Buddha)	1	0.6
Total		181	100.0

Table 3: Breakdown of Respondents by Race & Religion

In terms of ethnicity 99.4 percent were Malays (Islam) and 0.6 percent was Chinese (Buddha), which is not surprising given the fact that this part of Malaysia is the heartland of the Malay people as shown in Table 3 above.

No.	Education Level	Frequency, <i>f</i>	Percentages (%)
1	SPM/Certification	106	58.56
2	Diploma/Degree/Master Degree	26	14.34
3	Doctorate /Others	49	27.1
Total		181	100.0

Table 4: Breakdown of Respondents by Education Level

It is interesting to note that despite the poverty level which is the hallmark of the villages in the vicinity of DTC and CFC, about 41.44 percent of the respondents received higher education up to college and university level and about 58.56 percent reached secondary level education and also certification level education as mentioned in Table 4 above.

No.	Marital Status	Frequency, <i>f</i>	Percentages (%)
1	Single	35	19.3
2	Married	134	74.0
3	Widower/others	12	6.7
Total		181	100.0

Table 5: Breakdown of Respondents by Marital Status

Table 5 shows that most of the respondent that took part in this study are married with 74.0 percent of them are married and the remaining are single with 19.3 percent and the balance were widower/others with smallest percentages with 6.7 percent.

No.	Type of Work	Frequency, <i>f</i>	Percentages (%)
1	Government	14	7.7
2	Private	51	28.2
3	Self Employed	62	34.3
	Students/Retiree/Housewife/Others	54	29.8
Total		181	100.0

Table 6: *Breakdown of Respondents by Type of Work*

Table 6 above shows most of respondent that took part in these studies are working either in government sectors with percentages of 7.7, private sectors with percentages of 28.2 and also self-employed with percentages of 34.3 and a very small percentage is jobless, students, retiree, housewife and others with percentages of 29.8 only.

No.	Monthly Income	Frequency, <i>f</i>	Percentages (%)
1	RM500 – RM1,000	86	47.5
2	RM1,001 – RM2,000	66	36.5
3	RM2,001 – RM3,000	17	9.4
4	More than RM3,000	12	6.6
Total		181	100.0

Table 7: *Breakdown of Respondents by Monthly Income*

In term of monthly income, it shows that, most of the respondent at least earning RM500 to RM2,000 with percentage of 84 percent. It shows that respondent most of them are earning in order to accommodate the life as shown in Table 7 above. Only few of them earns more than RM2,001 which is around 16 percent only.

No.	Number of Household Members	Frequency, <i>f</i>	Percentages (%)
1	0 – 2 households’ members	28	15.5
2	3 – 6 households’ members	120	66.3
3	7 – 10 households’ members	31	17.1
4	More than 10 households’ members	2	1.1
Total		181	100.0

Table 8: Breakdown of Respondents by Number of Household

Most of their family members are between 3 – 6 household’s members with percentage of 66.3. less percentages of respondent with 0 -2 with 15.5 percent and 7 – 10 with 17.1 percent which is less than 20 percent. Few respondents with respondent more than 10 household’s members.

No.	Total Household Monthly Income	Frequency, <i>f</i>	Percentages (%)
1	RM500 – RM1,500	91	50.3
2	RM1,501 – RM2,500	54	29.8
3	RM2,501 – RM3,500	17	9.4
4	More than RM3,501	19	10.5
Total		181	100.0

Table 9: Breakdown of Respondents by Total Household Monthly Income

In term of total household monthly income, it shows that, most of the total household income is around RM500 to RM1,500 only which is too less to accommodate life with percentages of 50. It accommodates half of the respondent of this study. 30 percent of them earning around RM1,501 to RM2,500. The rest earning between the range of RM2,501 to more than RM3,501 with 19.9 percent among them as shown in Table 9 above.

3.3 Section B: Respondent Basic Village Information

Table 10 below shows on respondent that involved by villages. Total of 30 villages took part in this survey. Most of the respondent are from Kuala Jengai, Dendang, Bukit Besi, Cherul and Felda Cherul 1 & 2 which is accumulated to 44.7 percent. The remaining consists of other villages with lesser percentages.

No.	Village Name	Frequency, <i>f</i>	Percentages (%)
1.	Pasir Raja	8	4.4
2.	Shukor	10	5.5
3.	Jongok Batu	12	6.6
4.	Kuala Jengai	19	10.5
5.	Rantau Panjang	2	1.1
6.	Minda	11	6.1
7.	Talong	3	1.7
8.	Tepus	3	1.7
9.	Jerangau	5	2.8
10.	Dendang	22	12.2
11.	Padang Ping	4	2.2
12.	Batu Sawar/Lintang	-	-
13.	Besol Lama	5	2.8
14.	Bukit Besi	20	11
15.	DeLong	-	-
16.	Cherul	14	7.7
17.	Durian Mas	7	3.9
18.	Felda Cherul 1 & 2	20	11
19.	Taman Banggol Indah	1	0.6
20.	Binjai	3	1.7
21.	Geliga	1	0.6
22.	Mak Chili Paya	1	0.6
23.	Mak Lagam	3	1.7
24.	Padang Kemunting	1	0.6
25.	Melayu Ayer Jernin	1	0.6
26.	Paya Berenjut	1	0.6
27.	Kuala Kemaman	1	0.6
28.	Bukit Kuang	1	0.6
29.	Chendor, Kuantan	1	0.6
30.	Lot Seri Jaya	1	0.6
Total		181	100.0

Table 10: Breakdown of Respondents by Basic Village Information

No.	Facilities Availability	Frequency, <i>f</i>	Percentages (%)
1.	Tar Road	176	97.2
2.	Electricity	172	95.0
3.	Water Supply	173	95.6
4.	Community Hall	169	93.4
5.	Clinics	149	82.3
6.	Primary School	144	79.6
7.	Secondary School	103	56.9
8.	Mosque	165	91.2

Table 11: *Breakdown of Respondents by Facilities Availability*

Table 11 above shows facilities that available at the village whereby most of the villages do have all the facilities that mentioned above which is tar road, electricity, water supply, community hall, clinics, primary school, secondary schools and also mosque. Nearly 70 percent of the villages do have all the above-mentioned facilities at their villages.

No.	Village Distance	Frequency, <i>f</i>	Percentages (%)
1.	Less than 3KM	67	37.0
2.	3KM – 6KM	66	36.5
3.	6KM – 10KM	20	11.0
4.	More than 10KM	28	15.5
Total		181	100

Table 12: *Breakdown by Village Distance from Forest Reserve (Hutan Simpan Kekal)*

Table 12 above shows village distance from forest reserve (Hutan Simpan Kekal). Most of village distance is just in range of 6KM distance only with percentages of 73.5 percent. Around 26.5 percent of the villages are between 6KM to more than 10KM.

No.	Transportation to Work	Frequency, <i>f</i>	Percentages (%)
1.	Motorcycle	141	77.9
2.	Car	108	59.7
3.	Trucks	20	11.0
4.	Boat	1	0.6
5.	Others/No Transportations	3	1.7

Table 13: *Breakdown by Common means of Transportation to Work*

Table 13 above shows villagers common mode of transportations to work. Most of the villagers uses motorcycles with percentage 77.9 to work and also car with percentage of 59.7 to work. Very less of them uses trucks with percentage of 11.0, boat with percentage of 0.6 and some of them do not use any transportations to work with 1.7 percent.

3.4 Section C: Respondent Dependency on Forest Resources

Table 14 below shows on villagers’ dependency on forest resources which is most of them dependence on wood, rattans, bamboos and herbs with mostly half of the respondent dependent on them. Around 45.9 percent of them dependent on marine, aquatics and fisheries. Only small percentages depend on wildlife accounted for 3.3 percent. 15.75 percent of the villagers have no dependency on forest resources at all.

No.	Respondent Dependency on Forest Resources	Frequency, <i>f</i>	Percentages (%)
1.	Wood/ Rattans/ Bamboos/ Herbs	141	51.65
2.	Wildlife	6	3.3
3.	Fish/ Marine/ Aquatics	83	45.9
4.	Others/ No dependency	43	15.75

Table 14: *Breakdown by Respondent Dependency on Forest Resources*

Table 15 below shows on villagers’ estimated income from forest resources. The statistics shows that most of the villagers only earns up to RM500 only forest resources which is below the poverty line accounted for 93.4 percent. A very small percentages only earns from RM501 to more than RM2,001 with percentage of 6.6 percent. This shows that villager does not earn much with forest resources that available to them.

No.	Respondent Estimated Income	Frequency, <i>f</i>	Percentages (%)
1.	RM0 - RM500	169	93.4
2.	RM501 – RM1,000	7	3.9
3.	RM1,001 – RM1,500	3	1.7
4.	RM1,501 – RM2,000	1	0.6
5.	More than RM2,001	1	0.6

Table 15: *Breakdown by Respondent Estimated Income from Forest Resources*

3.5 Section D: Monitoring Controls

The villagers were asked few questions regarding monitoring and controls department that involved in protecting the forest resources. Most of the villagers heard about KPKKT/PESAMA and most of them have participate in the community program that organized by KPKKT/PESAMA. Most of them also do not make any complaint regarding forestry to KPKKT/PESAMA and most of the villagers agrees to participate in the program organized by KPKKT/PESAMA. Table 16 below shows results from the survey analysis.

No.	Monitoring Controls	Frequency, <i>f</i>	
		Yes	No
1	Have you ever heard of KPKKT/PESAMA?	167 (92.3%)	14 (7.7%)
2	Have you ever participated in a community program from KPKKT/PESAMA?	112 (61.9%)	69 (38.1%)
3	Have you ever made a complaint regarding forestry operations carried out by KPKKT/PESAMA	14 (7.7%)	167 (92.3%)
4	Do you agree to participate in the program organized by KPKKT/PESAMA?	153 (84.5%)	28 (15.5%)

Table 16: *Monitoring and Controls*

3.6 Section E: Social & Health Welfare

The villagers were asked few questions regarding social and health welfare among them. Most of the respondent agrees that forestry operations increase the health and safety risks of communities. Villagers does not agree that forestry operation cause physical/mental health harm. They also do not agree that forestry operation cause exposure to dust, noise, smell, vibration etc. Villagers are satisfied with physical infrastructure that provided to them. Forestry Operation will not increase crime and violence cases in the area. Table 17 below shows results from the survey analysis.

No.	Social & Health Welfare	Frequency, <i>f</i>	
		Yes	No
1	Do forestry operations increase the health and safety risks of communities?	153 (84.5%)	28 (15.5%)
2	Does this Forestry Operation cause physical/mental health harm?	75 (41.4%)	106 (58.6%)
3	Does this Forestry Operation cause exposure to dust, noise, smell, vibration etc.?	61 (33.7%)	120 (66.3%)
4	Is the physical infrastructure provided enough?	126 (69.6%)	55 (30.4%)
5	Does this Forestry Operation increase crime & violence cases in this area?	23 (12.7%)	158 (87.3%)

Table 17: *Social & Health Welfare*

3.7 Section F: Economy & Material Welfare

The villagers were asked few questions regarding economy and material welfare among them. Most of the respondent agrees that Forestry Operation increase employment opportunities and the villagers satisfied with cost of living at their area. Table 18 below shows results from the survey analysis.

No.	Economy & Material Welfare	Frequency, <i>f</i>	
		Yes	No
1.	Can this Forestry Operation increase employment opportunities?	158 (87.3%)	23 (12.7%)
2.	Is the cost of living satisfactory?	113 (62.4%)	68 (37.6%)

Table 18: *Economy & Material Welfare*

3.8 Section G: Cultural Values of Local Communities

The villagers were asked few questions regarding cultural values of local communities among them. Most of the respondent do not agrees that Forestry Operation result in a change in cultural values and forestry operations will affect the natural and cultural heritage values.

Besides that, most of the villagers do not agree that forestry operation led to the loss of local languages and dialects. Table 19 below shows results from the survey analysis.

No.	Cultural Values of Local Communities	Frequency, <i>f</i>	
		Yes	No
1	Does the Forestry Operation result in a change in cultural values?	21 (11.6%)	160 (88.4%)
2	Will these forestry operations affect the natural and cultural heritage values in your place?	39 (21.5%)	142 (78.5%)
3	Will this forestry operation lead to the loss of local languages & dialects?	5 (2.8)	175 (97.2)

Table 19: *Cultural Values of Local Communities*

3.9 Issues for consideration

Besides the obvious services and environmental benefits of the natural forest, some of its produces are traditionally known to have high consumption and income values to certain segments of the communities living in its vicinity. While areas of DTC and CFC containing these resources may not be designated as HCVF, KPKKT and PESAMA is nonetheless, obliged to institute appropriate management prescriptions with the view to enhance the values of these forest products and services and coordinate their utilisation in the context of current legislation governing such uses.

KPKKT and PESAMA continues to ensure that all of its SFM activities, particularly selective timber harvesting operations, do not severely damage, and thereby reducing the values of the non-timber resources. At the same time, KPKKT and PESAMA will attempt, to the extent possible, to implement the necessary measures to enhance the quantity and quality of these resources.

On the other hand, the local communities on their part, should shoulder some of the responsibilities to safeguard the resources from being over-exploited while trying to gain economic benefits and services from them.

In this respect, KPKKT and PESAMA will continue with the initiative to create and instil awareness about the relevant laws and regulations which govern the collection, keeping and utilisation of these resources. This will be done in cooperation with the relevant authorities which, in turn have their respective areas of responsibility and jurisdictions.

There will be regular consultations between KPKKT and PESAMA, the relevant households and the authorities concerned (incl. Terengganu State Forest Department) to discuss on issues related to the collection and use of forest produce. The non-timber forest products, medicinal plants and wildlife are very important for the future not only for the communities but also to the State and the society at large. Efforts in whatever forms, initiated and implemented by any parties will always be given the necessary support for the benefit of all.

The following are the negative opinions brought up by the respondents during the interviews which largely reflect their sentiments on KPKKT and PESAMA and its activities. These negative opinions were voiced despite of the findings that pointed to the side of the coin:

- a. Logging had caused losses to the villagers.
- b. Over-logging causes floods.
- c. Over-logging causes erosion problems for the locals.
- d. Logging has brought no benefit to the local residents.
- e. Over-logging damages watershed and water resources.

SECTION 4 SUMMARY AND RECOMENDATIONS

4.1 Summary and Recommendations on Mitigation Measures

Based on the findings of this SIA, the following line of actions are recommended to be taken by KPKKT and PESAMA during the days to mitigate the negative impacts and improve its operation:

- a. KPKKT and PESAMA is to build up its own database on pertinent social and economic information which will be useful for future reference and decision-making process.
- b. KPKKT and PESAMA is to develop appropriate strategy to maintain its image as a corporate neighbour that is friendly and socially acceptable to the surrounding communities, while at the same time continuing to maintain its financial strength and viability. This is necessary for the company in its effort to ensure business operational sustainability, protection and conservation of the forest resource, and interests of the forest-dependent communities.
- c. KPKKT and PESAMA is to give a high priority towards capacity building and education of its staff as well as public education campaign as part of its CSR and community engagement programmes targeting communities living closest to the forest.
- d. KPKKT and PESAMA is to strive to continuously improve its management of the forest and to get DTC and CFC being continuously accredited to the standards of established certification bodies such as MTCS and FSC.
- e. KPKKT and PESAMA will continue to enhance the quality of its management of DTC and CFC by incorporating relevant provisions of Occupational Safety and Health for its staff and workers.

- f. KPKKT and PESAMA to enhance its cooperation on the matter of SIA with the relevant authorities and institutions, such as JaKOA, PERHILITAN, Jabatan Perhutanan Negeri Terengganu, WWF-Malaysia, UMT, etc.
- g. KPKKT and PESAMA will embark into more aggressive forest rehabilitation programme, possibly through the involvement of local residents.
- h. There is a need for a better conservation measure by the KPKKT and PESAMA and the parties concerned such as Perhilitan, Forest Department, etc
- i. KPKKT and PESAMA needs to improve and refine its working in the forest. About 36 per cent of respondents were aware of terms like ISO, MC& I and FSC and the need and value for their compliance.
- j. KPKKT and PESAMA will enhance its public relations (PR) and image with local residents through (a) increased CSR contributions and activities; (b) more active awareness campaign on its activities and the value of conservation; (c) more friendly dialogues with local residence.
- k. KPKKT and PESAMA should be considerate to local villagers when conducting its operations.
- l. KPKKT and PESAMA should contribute to the local villages by constructing more and better infrastructure.

REFERENCES

1. Anon. (2012). Guidelines and Procedures for Social Impact Assessment and Monitoring of Forest Management Operations (Peninsular Malaysia). Inst. of Tropical Forestry and Forest Products, UPM & Malaysian Timber Certification Council. 33p. MPIC-UPM Bilateral Cooperation Programme, and MTCC. Printed by Jaybees Print Industries Sdn.Bhd. ISBN: 978-983-44426-4-4.
2. Azahari Mohd Raslan (2006). Poverty Line Income: Malaysia's Experiences (Powerpoint presentation). Jabatan Perangkaan Malaysia.
3. Borhan, M. (2017). Social Impact Assessment of the Sustainable Forest Management of Cherul Forest Concession (CFC) Managed Under the 2nd Rotation of the Malaysian Selective Management System (SMS). Pesama Timber Corporation Sdn Bhd. Unpub.
4. Centre For Good Governance (2006). A Comprehensive Guide for Social Impact Assessment. 42p. <http://unpan1.un.org/intradoc/groups/public/documents/cgg/unpan026197.pdf>
5. Dept. of Statistics Malaysia (2015). Press Release on Report of Income and Basic Amenities Survey 2014. <https://www.dosm.gov.my>
6. <http://skspDUNGUN.blogspot.com>
7. Ramle Bin Abdullah, Mohamad Hafis Bin Amat Simin Asmawi Bin Ibrahim (2014). Lifestyle Transformations Of The Orang Asli Through Participations In The Palm Oil Plantation Projects In Terengganu State, Peninsula Malaysia. European Academic Research Vol. II, Issue 2, May 2014: 1657 – 1676. ISSN: 2286 4822. Www.Euacademic.Org
8. Unit Perancang Ekonomi Negeri (UPEN) Terengganu (2011). Data Asas Terengganu 2011.
9. www.weather-forecast.com/location/kampong-ban-ho/.

ANNEX