



## **Factors Influencing the Malaysian Sustainable Palm Oil (MSPO) Certification Process During the Certification Phase for Independent Smallholders**

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### **ABSTRACT**

The MSPO certification scheme was adopted nationwide and made mandatory for all smallholders, plantations, and mills starting January 1, 2020. In Malaysia, an independent smallholder is defined as an individual who owns land less than 40.46 hectares in aggregate, and they account for 17% of the total oil palm planted area. However, the long duration required to obtain MSPO certification for independent smallholders affects their eligibility to supply their fresh fruit bunches (FFB) to certified palm oil mills for export. The study showed that during the certification phase for independent smallholders, the preparation of the Stage 2 audit plan and stakeholders' consultation required the longest time to be completed in 52 days, followed by drafting of the final audit report with 29 days and preparation of the Stage 1 audit plan with 25 days. Meanwhile, the issuance of the MSPO certificate required the shortest time to be completed in one day. Therefore, it is only proper that Malaysia, as one of the leading palm oil producers, has a comprehensive certification scheme that is locally adaptable and meets the sustainability requirements internationally, following the principles of sustainability upon which the MSPO standard was built.

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## INTRODUCTION

The Malaysian Sustainable Palm Oil (MSPO) certification scheme was first made voluntary on 1<sup>st</sup> January 2015 and subsequently became mandatory nationwide on 1<sup>st</sup> January 2020 for all smallholders, plantations, and mills. Ongoing efforts towards sustainable production of palm oil led to the development of the Malaysian Standard (MS) on MSPO, which serves as a guideline to meet the global demand for sustainable oil palm products. The implementation of the requirements is monitored through auditing of oil palm premises by third party auditors for compliance with principles and criteria based on the three pillars of sustainability, namely planet, profit, and people (MPOB, 2015).

The MS comprises four parts, including general principles, requirements for independent smallholders, plantations and organised smallholders, and mills. It is registered as Malaysian Standard under MS2530:2013. MSPO contains seven principles covering (1) Management commitment and responsibility, (2) Transparency, (3) Compliance to legal requirements, (4) Social responsibility, health, safety, and employment condition, (5) Environment, natural resources, biodiversity, and ecosystem, (6) Best practices, and (7) Development of new planting (Rosearnida et al. 2019). Therefore, the compliance with sustainability standards must be verified through the process of certification.

Certification ensures that the prospective buyer that the supplier complies with the sustainability requirements of an auditable sustainability standard certified by an established independent Certification Body (CB). It serves as a tool to assure that the palm oil supply chain complies with requirement standards through verification from the third party (Pye, 2019). The CB conducts audits according to the rules of a certification system, based on the requirements of ISO 17021, and issues a certificate if the audit is successful. In addition, the experience and knowledge of an auditor could elevate the effectiveness of the audit quality (Waad et al., 2021). Thus, the MSPO certification scheme is essential in solidifying the sustainable development of the Malaysian palm oil industry, especially in assisting smallholders in committing to sustainable agriculture (Philip et al., 2021). At the same time, this could boost the uptake on the national certification amongst the smallholders, and portray a significant impact on the sustainability initiative by the Malaysian government. As reported by Sanath (2019), the MSPO certification initiative could help revamp the brand as a premier vegetable oil in the international markets.

According to the Malaysian Palm Oil Council, Malaysia accounts for 28% of world oil palm production and 33% of world exports. Between 2018 and 2019, crude palm oil production's growth, rising from 19.52 million tons to 19.86 million tons. As of the end of June 2020, about 96% of close to 4.06 million hectares of land under oil palm cultivation had obtained MSPO certification (MPOC, 2020), in which almost 17% of the total oil palm planted area is owned by an independent smallholder (Parveez et al., 2020). An independent smallholder is defined as an individual who own land less than 40.46 hectares or 100 acres in aggregate. Thus, their inclusiveness in the development of the MSPO standard was crucial to balance out the trade-off between strictness and attainability for certification (MPOB, 2015).

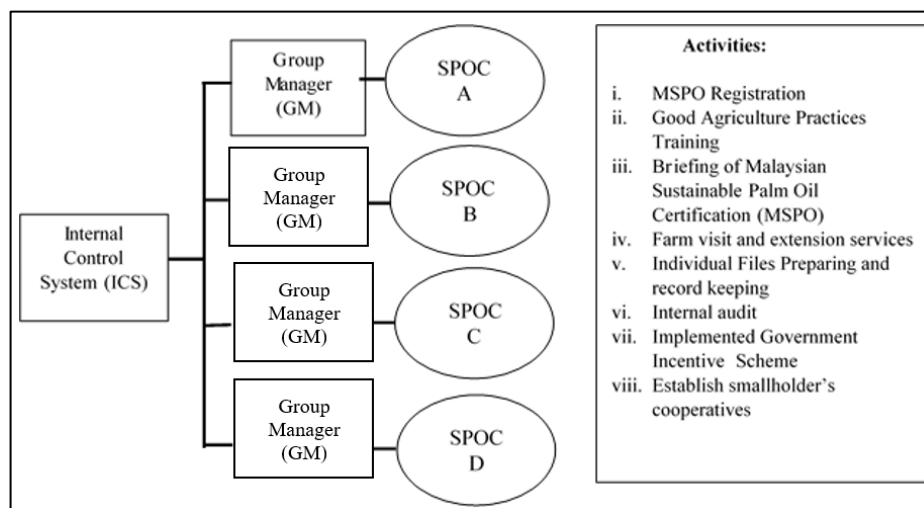
However, constant allegations against palm oil on environmental damage, such as deforestation and loss of biodiversity, have hampered the economic growth of the palm oil industry as demand for palm oil export was slightly affected. Consequently, the independent smallholders are having a hard time selling their fresh fruit bunches (FFB) to the dealers as they have not complied with the criteria and requirements for sustainability certification. As reported by Abdullah et al. (2022), only 30.66% of Malaysia's 260,352 independent smallholders have acquired MSPO, which is a relatively low percentage. However, due to the length of time needed for each activity during the certification phase, the actual MSPO certification process may vary among independent smallholders in Malaysia. Therefore, the introduction of the national scheme, MSPO certification, which is adapted to the local environment, helps smallholders adopt sustainability practices in managing their farms. It could serve as a response to address the allegations on environmental and social impacts linked to the Malaysian palm oil industry (Norhidayu et al., 2017; Majid et al., 2021). At the same time, it can help to improve their economic income and eventually alleviate their livelihood standards (Haron and Ayojimi, 2015; Faisal et al., 2017).

The objectives of this research are to understand the factors that influence the MSPO certification process during certification phase and at the same time to facilitate the implementation and effectiveness of the MSPO standards especially for the independent smallholders in Malaysia.

## MATERIALS AND METHODS

### Study Site

The study was carried out in selected Sustainable Palm Oil Clusters (SPOCs) across the nation, namely, in North, East, Central, South, Sarawak, and Sabah. There were 60 SPOCs involved, with a high population of independent smallholders, who had been certified with MSPO between 2018 and 2019. Generally, SPOCs refer to a group of between 1000 to 2000 independent smallholders within a specific boundary, committed to producing sustainable palm oil through cooperative structures. Smallholders are positioned according to their area and headed by a Tunjuk Ajar dan Nasihat Sawit (TUNAS) officer or known as Group Manager (GM), and monitored by Internal Control System (ICS) under the SPOC, as shown in Figure 1.



Source: Peng et al. (2019)

Figure 1 Structure of Sustainable Palm Oil Clusters (SPOC) MPOB

### Data Collection

The certification phase starts after the completion of pre-audit activities. Using stratified random sampling among the registered independent smallholders according to their SPOC zone, the distribution process and survey collection took close to two months to complete. A total of 360 samples were chosen with a 95% confidence level and a 5% margin of error after calculating the total sample size using Krejcie and Morgan (1970) formula.

The data in this study were primarily categorical, and hence, a descriptive analytic method was utilized to analyze them. In addition to frequencies and percentages, descriptive statistics were used to calculate the mean and standard deviation of each variable. A normality test was performed to identify the variables that influence MSPO certification during the certification phase for independent smallholders in Malaysia, in order to achieve the study's main objective.

### Certification Process for Independent Smallholders

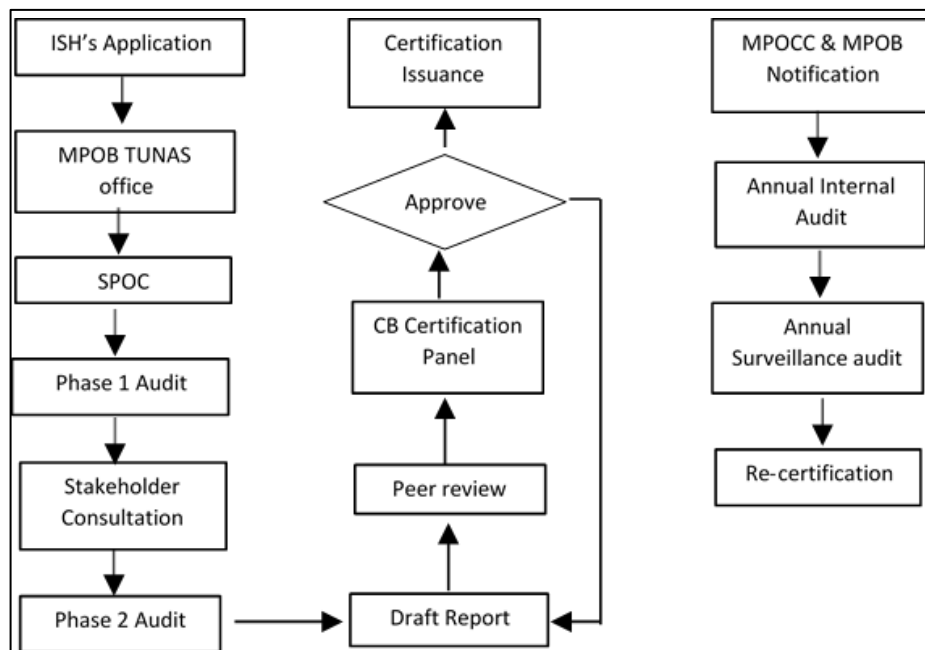
The certification process starts when invited smallholders attend the MSPO briefing and training session conducted by MPOB, as shown in Figure 2. During the preparation phase (pre-audit activities), the MSPO application registration form from the independent smallholder is reviewed for eligibility and completeness by the Group Manager (GM). Then, an advisory visit is conducted, prior to on-site training and extension activities such as good agricultural practices (GAP), to familiarize smallholders with MSPO principles and criteria. The smallholders are then listed in the database to be audited and grouped under SPOC. Subsequently, an internal audit is conducted to determine readiness based on MSPO requirements before an actual audit can be conducted through an invited external Certification Body (CB). The activities and responsibilities for the certification phase can be found in Table 1.

Table 1 The certification phase activity and responsibility

Certification phase	Phase 1 audit process	Phase 2 audit process	Responsibility
Activity	<ul style="list-style-type: none"> <li>MSPO application to CB from MPOB</li> <li>Prepare Stage 1 audit plan</li> <li>Conducting Stage 1 audit by CB to MPOB</li> </ul>	<ul style="list-style-type: none"> <li>Prepare corrective action by MPOB</li> <li>Conduct stakeholders meeting by CB</li> <li>Prepare Stage 2 audit plan by CB</li> </ul>	<ul style="list-style-type: none"> <li>MPOB</li> <li>MPOB/CB</li> <li>CB</li> </ul>
	<ul style="list-style-type: none"> <li>Issuing Stage 1 audit report from CB to MPOB</li> </ul>	<ul style="list-style-type: none"> <li>Conducting Stage 2 audit by CB</li> <li>Prepare final report by CB</li> </ul>	<ul style="list-style-type: none"> <li>CB</li> <li>CB</li> </ul>

The Stage 1 audit was conducted on site to determine the sufficiency of the SPOC documentation, apart from the outcome of the internal audit assessment upon the Stage 2 audit. External stakeholder consultation was also conducted before the Stage 2 audit. Relevant stakeholders that had been identified by the CB were notified at least 30 days before the start of the field visit during the audit. The details pertaining to the outcome of the discussion with the stakeholders were duly endorsed by both parties and documented in the audit report. Stakeholder issues were brought to Stage 2 audit to be verified. After the findings of the Stage 1 audit were resolved and issues from the stakeholders were identified, the Stage 2 audit was scheduled.

During the Stage 2 audit, the audit team evaluated the implementation of the MSPO certification through documentation and records, site visits, and interviews with smallholders to verify the effectiveness of the SPOC’s MSPO system and practices against the requirements of the MS2530-2:2013 standard. The draft audit report was prepared and submitted to the SPOC within 30 days after the closure of the major non-conformities (if any). The report was then submitted to two independent peer reviewers appointed by the CB. All issues were resolved before the finalization of the audit report. A final report was submitted to the Certification Panel to make a decision on the recommendation for MSPO certification. All SPOCs that have been certified with MSPO were informed to the Malaysian Palm Oil Certification Council (MPOCC) and public notification was then made available through MPOCC website.



Source: Peng et al. (2019)

Figure 2 Procedures of MSPO certification for independent smallholders

**Data Analysis**

The normality of the data distribution on factors influencing the MSPO certification process during the certification phase was analyzed using the Anderson-Darling Normality Test (ADNT) in Minitab 17. The statistical significance refers to the 0.05 probability level.

## RESULTS AND DISCUSSION

### MSPO Certification during Phase 1 Audit

During the Phase 1 audit for the certification of MSPO, several audit activities were conducted, such as the application to the certification body (CB), preparation of the plan for the Stage 1 audit, review of the Stage 1 audit plan, and issuance of the Stage 1 audit report. It took 67 days to complete all activities before the audit Phase 2 activities, as shown in Figure 3. The Phase 1 audit was conducted to check the level of understanding among the independent smallholders regarding the criteria and requirements of the MSPO standard before the Phase 2 audit. This study discovered that most of the respondents were men, with the majority of them falling between the ages of 45 to 54. Additionally, most of the respondents were over the age of 55. This result supports the claim made by Abdullah et al. (2022) that it is difficult for independent smallholders to adhere to the principles and standards because they are getting older. The differences in independent smallholders' assessments of MSPO certification might be directly attributed to financial incentives, training and skill development, and risk perception (Abdullah et al., 2022). This is in agreement with Rosearnida et al. (2019), who mentioned that independent smallholders should be familiar with the key areas of MSPO standard. The knowledge gap among the smallholders is crucial to further convince them to adopt the certification (Claudine and Reza, 2012).

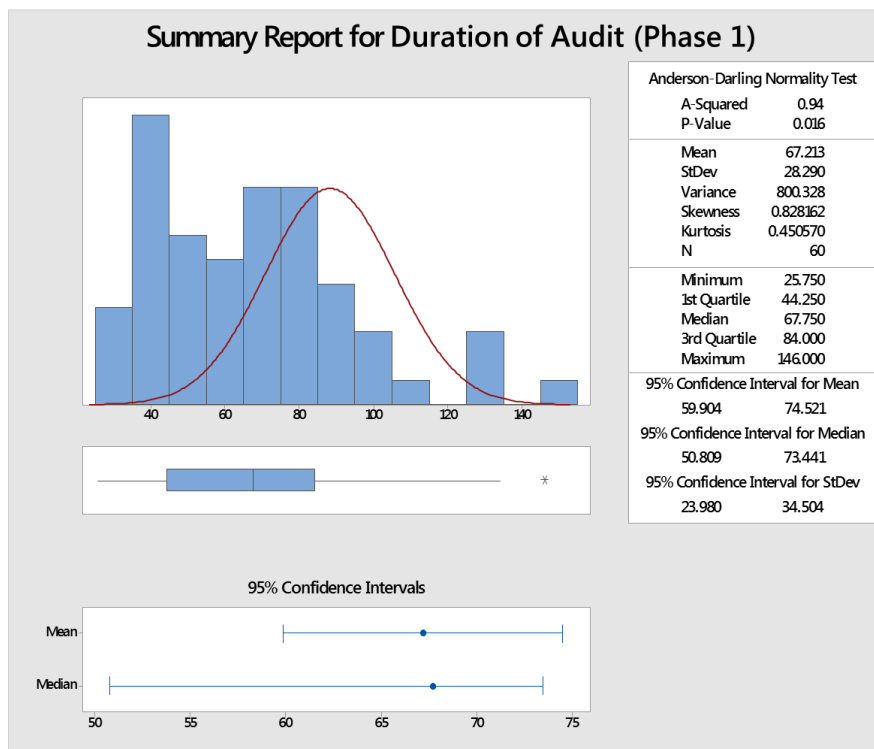


Figure 3 Summary report for the duration of Phase 1 audit activities on independent smallholders in Malaysia

Based on the findings shown in Figure 4, the most time-consuming activities during the Phase 1 audit were the preparation of the Stage 1 audit plan, which required 25 days or 37%, followed by the Stage 1 audit with 13 days (20%), the issuance of the Stage 1 audit report with 13 days (15%), application to the certification body (CB) with 8 days (12%), review of the Stage 1 audit plan with 6 days (9%), review of quotation with 3 days (4%), and calculation of mandays and quotation with 2 days (3%). This shows that independent smallholders often have a limited understanding of the MSPO criteria and requirements, which can be a barrier to proceeding with Phase 2 audit activities. This was in agreement with Brandi et al. (2015) who reported that, the existence of knowledge gap among independent smallholders was due to a lack of training on good agricultural practices (GAP). It is important to have a comprehensive training on GAP as it prepares them for certification as reported by Philip et al. (2021). Apart from that, awareness campaigns on sustainability certification through physical and online platforms can help to deepen their understanding and progress towards sustainability (Hafizuddin et al., 2018). The lack of promotional activities on MSPO

certification led to less than 10% of the area being certified with MSPO from 2015 to 2017 (Nazirah and Zaki, 2018). However, the progress of MSPO certification adoption increased significantly among oil palm stakeholders, particularly smallholders, after the Malaysian government decided to make MSPO certification mandatory starting 1<sup>st</sup> January 2020.

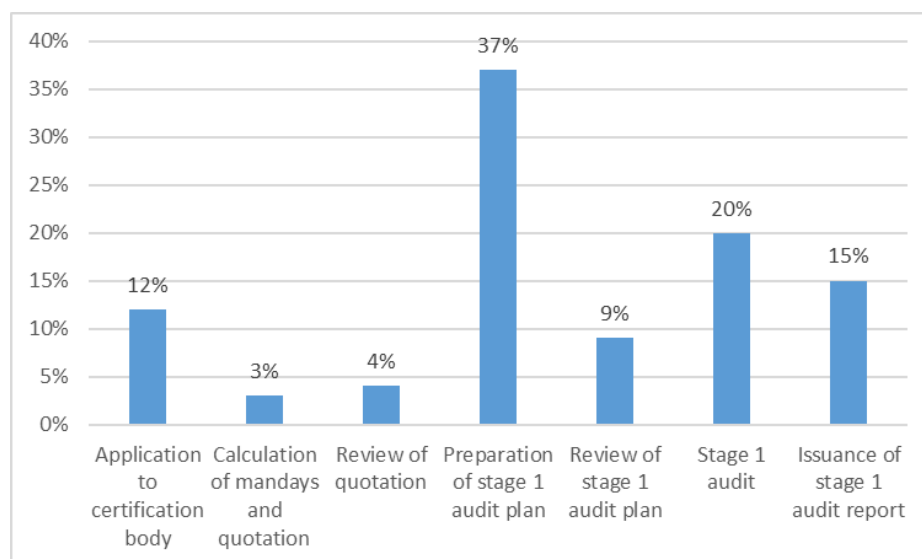


Figure 4 Percentage of time required by the activities during Phase 1 MSPO audit of independent smallholders in Malaysia

### MSPO Certification during Phase 2 Audit

Phase 2 audit was conducted to assess the completeness of information and evidence regarding conformity to all requirements under MSPO standards before awarding the MSPO certificate. As shown in Figure 5, it took 172 days to complete, and at this phase, interviews, observations of processes and activities, review of documentation and records were conducted to obtain relevant information (Rosearnida et al., 2019). There were a total of eleven audit activities conducted, such as preparation of a correction action report for Stage 1 audit findings, preparation of the Stage 2 audit plan and stakeholders consultation, review of the Stage 2 audit plan, stakeholder consultation, Stage 2 audit, preparation of a corrective action report for Stage 2 audit findings, draft final report audit, peer review, technical review, CB certification committee, and issuance of the MSPO certificate.

As reported by Sanath (2019), the awarding of a certificate to the client depends on the outcome of the audit report. This was in agreement with the findings reported by Rosearnida et al. (2019), whereby a total of 134 non-compliances were issued, particularly Principles 4 on the criteria of complaints and grievances and Principle 5 on the waste disposal and identification of species of habitats, from 40 audits that have been conducted at MPOB's SPOC zones. This showed that the audit findings correlated with the time taken to correct all non-compliances associated with the technical training and knowledge transfer that the smallholders received from the extension officer. The capability of the extension officer to transfer technology in the forms of communication and knowledge in oil palm cultivation was good (Awang et al., 2017). As reported by Sheilyza and Zulkifli (2020), knowledge and skills were important for extension officers to conduct comprehensive GAP training among the smallholders.

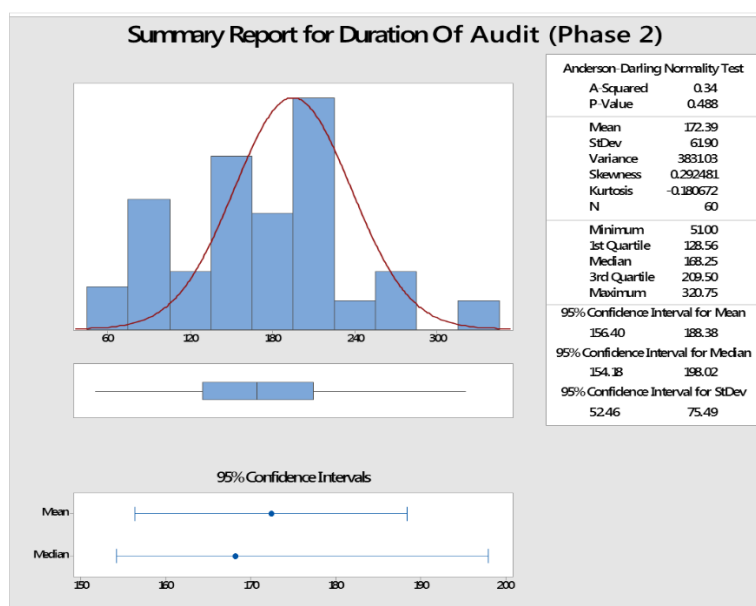


Figure 5 Summary report for the duration of Phase 2 audit activities on independent smallholders in Malaysia

Based from the findings shown in Figure 6, the most time-consuming activities during the Phase 2 audit were the preparation of the Stage 2 audit plan and stakeholder consultation, which required 52 days or 30%. This was followed by the draft final report audit with 29 days (17%), and the preparation of corrective action reports for Stage 2 audit findings and peer review, each accounting for 20 days or 12%. Meanwhile, the least time-consuming activities were the Stage 2 audit and issuance of the MSPO certificate, each requiring only 1 day or 1% to complete. As reported by Rosearnida et al. (2019), the preparation of the Stage 2 audit plan correlated with the information obtained from the Stage 1 audit report. The element of transparency is key in MSPO certification as the source of origin of the palm oil products can be identified. Therefore, compliance with a fundamental understanding of Principle 2 on traceability among smallholders could be further improved through proper guidance and training, such as the establishment of a record-keeping system to document their farm activities (Rosearnida et al., 2019).

Based on a study by Nordin et al. (2019), the low understanding among independent smallholders on the criteria stated in Principles 1-4 of MSPO certification caused delays in the progress of MSPO implementation. A comprehensive action plan through continuous assessment could provide an opportunity for them to understand the significance of MSPO implementation toward social and environmental impact (Nambiappan et al., 2018). Robust, assessed, and scientific evidence can determine the traceability of a certification scheme in gaining trust from the public (Alain et al., 2016; Shahida et al., 2019; Umi et al., 2020).

Aside from that, the element of conservation of the environment, natural resource biodiversity, and ecosystems, which is Principle 5 of MSPO, is also a crucial aspect in transforming smallholders to comply with certification criteria and requirements. As reported by Rosearnida et al. (2019), the lack of understanding of environmental protection issues among smallholders contributes to non-compliance issues that may take longer to correct. Increasing smallholders' understanding of environmental aspects is crucial to strengthening the Malaysian government's efforts to promote the palm oil industry and meet international sustainability standards (Aszlan and Shakila, 2019; Caleb and Kristjan, 2019). Eventually, smallholders can understand environmental issues and translate this knowledge into action, such as practicing no open burning, mitigating human-wildlife conflict, and protecting high biodiversity value to comply with MSPO criteria and requirements.

A study by Lee et al. (2016) reported a positive correlation (0.218) between the government's support for MSPO certification implementation and smallholders' views on the benefits of MSPO certification (0.196), facilitating the certification process. This finding is in line with Labansing et al. (2020) report that mutual understanding, confidence, and government initiatives on sustainability certification can convince smallholders to adopt MSPO certification, although it may take longer to rationalize (Vince and Haward, 2017).

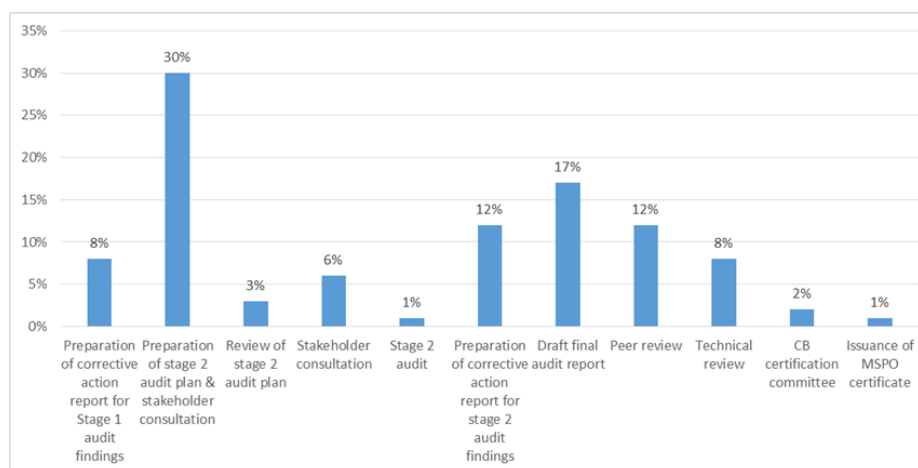


Figure 6 Percentage of time required by the activities recorded during Phase 2 MSPO audit of independent smallholders in Malaysia

### Factors and Challenges that Influence MSPO Certification Process during Certification Phase

Several factors and challenges influenced the MSPO certification process during the audit activities, such as the level of knowledge and understanding about MSPO certification among independent smallholders, competency skills among extension officers to guide smallholders in managing their farms, and the efficiency of Certification Bodies (CBs) in issuing MSPO certificates. A study by Lee et al. (2016) reported that the knowledge about the implementation of MSPO among smallholders was only at 11%. This is in agreement with Brandi et al. (2015), where a lack of knowledge and skills about good agricultural practices led to a longer time in preparing corrective action based on the outcome of audit findings. This can be a challenge to certify independent smallholders as knowledge and technical transfer among them are low due to a high illiteracy rate and lower education level. As reported by Yap et al. (2021), the national economic growth, especially in the agriculture sector, is mainly contributed by the performance of smallholders. During the preparation phase of MSPO certification for independent smallholders, the GAP technical and advisory visit activity on their farms took the longest time to complete, with 39%, compared to briefing and training activity with 15% (Philip et al., 2015). However, a positive correlation between independent smallholders' knowledge of the implementation of MSPO certification (0.216) and their perception of the benefits of MSPO certificates (0.196) can influence the adoption rate of MSPO certification among them (Lee et al., 2016).

The preparation plan for audit activities is important as it prepares smallholders for MSPO certification. The extension officer needs to guide smallholders to acquire new problem-solving techniques and knowledge to comply with MSPO requirements, as this can influence the rate of MSPO certification among them. A study by Sheilyza and Zulkifli (2020) reported that 34 farmers were able to increase their yield productivity through good skills in managing their farms due to the guidance they received from the extension officer. The extension officer can improve their competency by narrowing down the gap that exists between productivity at the research station and smallholders' farms through specific training that focuses on their expertise such as GAP, safety, and MSPO awareness. However, due to the scattered nature of the population of independent smallholders, it is impossible for the extension officer's competency to help smallholders understand the criteria and requirements for MSPO certification as some of the training requires full attention, such as in calibration and spraying techniques (Rosearnida et al., 2019). Therefore, the integration of technology into training as a teaching tool using online and physical platforms can facilitate smallholders' interest in learning about sustainability practices. The role of CB is also important in determining the issuance of MSPO certification to smallholders. The selection of CB is crucial as recognition, costs, industry knowledge, experience, and quality of communication influence the speed of the certification process (Augusto et al., 2018).

As reported by Nikou and Mezei (2013), certification services were inconsistent, and Castka et al. (2015), supported this by noting that the quality of the audit correlated with the satisfaction of the CB. This was in agreement with Waad et al. (2021), who reported that the motivation of an auditor correlates with the quality of an audit process. A study by Augusto et al. (2018), reported that market acceptance, technical competence, and flexibility were the three main components in deciding the selection of CB. Therefore, the



performance of certification companies is vital in gaining credible recognition in the certification market. At the same time, the ability of the certification companies to be consistent with their services can add value to their reputation as it reflects on their overall performance, such as the percentage of independent smallholders getting certified with MSPO scheme. Therefore, the performance of certification companies is vital in gaining credible recognition in the certification market.

## CONCLUSION

This study has demonstrated that there is a need to expedite the issuance of MSPO certificates to smallholders, who contribute to 85% of the world's palm oil production. As the country strives to counter allegations against palm oil from European countries, it is essential for the Malaysian government to certify all smallholders to meet international market requirements for sustainability. Additionally, smallholders can generate income and create job opportunities for their communities. Therefore, the possible factors identified to influence the MSPO certification process during the certification phase can help evaluate and improve the dynamics of the MSPO certification system. Ultimately, the adoption of the MSPO certification can become a reliable, transparent, and effective measure in demonstrating the country's commitment to the sustainability of the palm oil industry.

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