ABSTRACT

Purpose: The palm oil sector plays an important role in the national economy. Growth in this sector can improve people's welfare and reduce poverty. The purpose of this study is to determine the role of independent smallholder institutions and their obstacles in realizing oil palm plantation governance following ISPO principles/criteria/indicators.

Theoritical Framework: This study focuses on the application of the theory of Esman and Uphoff in (Abriandi et al., 2019), mentioning several roles of farmer institutions, with indicators namely: Interorganizational Tasks, Resource Tasks, Services Tasks, and extra-organizational tasks. This study uses a mixed research method, which combines the process of a quantitative approach in data collection and a qualitative approach in analyzing descriptively.

Methods: This study focuses on the application of the theory of Esman and Uphoff in (Abriandi et al., 2019), mentioning several roles of farmer institutions, with indicators namely: Interorganizational Tasks, Resource Tasks, Services Tasks, and extra-organizational tasks. This study uses a mixed research method, which combines the process of a quantitative approach in data collection and a qualitative approach in analyzing descriptively.

Findings: Researchers finding the importance of building collaboration in strengthening ISPO regulations in the future, because Independent Smallholder Institutions play an important role in influencing the success or failure of the implementation of ISPO certification, in general, ISPO certification policies are still in demand by large companies while the majority ownership of oil palm plantations is owned by Independent Smallholders so need to encourage Independent Smallholders to play an active role in implementing ISPO certification.

Practical Implications: By uncovering the obstacles faced by independent smallholders and assessing the effectiveness of institutions in the ISPO certification process, the research provides actionable insights for policymakers and stakeholders. The study's emphasis on developing responsive plans and strengthening the independent smallholder ecosystem adds a practical dimension to the broader discourse on sustainable palm oil development.

Originality/Value: This research stands out through its specific focus on independent smallholders, the nuanced examination of ISPO challenges at the grassroots level, the adoption of a comprehensive institutional concept, the significance of the chosen geographical context, the integration of multi-disciplinary insights, and the exploration of readiness and conventional practices. These elements collectively contribute to the novelty and originality of the study, offering a unique contribution to the existing body of knowledge on sustainable palm oil governance.

Keywords: smallholders, palm oil, governance, sustainable.

PAPEL INSTITUCIONAL DOS PEQUENOS AGRICULTORES INDEPENDIENTES NA REALIZAÇÃO DE UMA GOVERNAÇÃO SUSTENTÁVEL DAS PLANTAÇÕES DE ÓLEO DE PALMA

RESUMO

Objetivo: O setor do óleo de palma desempenha um papel importante na economia nacional. O crescimento neste setor pode melhorar o bem-estar das pessoas e reduzir a pobreza. O objetivo deste estudo é determinar o papel das instituições independentes de pequenos proprietários e seus obstáculos na realização da governança de plantações de palmeiras de óleo de acordo com os princípios/critérios/indicadores da OSPI.

Estrutura Teórica: Este estudo se concentra na aplicação da teoria de Esman e Uphoff em (Abriandi et al., 2019), mencionando vários papéis das instituições de agricultores, com indicadores a saber: Tarefas Interorganizacionais, Tarefas de Recursos, Tarefas de Serviços e tarefas extraorganizacionais. Este estudo utiliza um método de pesquisa misto, que combina o processo de uma abordagem quantitativa na coleta de dados e uma abordagem qualitativa na análise descritiva.

Métodos: Este estudo se concentra na aplicação da teoria de Esman e Uphoff em (Abriandi et al., 2019), mencionando vários papéis das instituições de agricultores, com indicadores: Tarefas Interorganizacionais, Tarefas de Recursos, Tarefas de Serviços e tarefas extraorganizacionais. Este estudo utiliza um método de pesquisa misto, que combina o processo de uma abordagem quantitativa na coleta de dados e uma abordagem qualitativa na análise descritiva.

Constatações: Pesquisadores percebendo a importância da colaboração de construção no fortalecimento dos regulamentos ISPO no futuro, porque as Instituições Independentes de Pequenos Proprietários desempenham um papel importante na influência do sucesso ou fracasso da implementação da certificação ISPO, em geral, as políticas de certificação ISPO ainda estão em demanda por grandes empresas, enquanto a propriedade majoritária de plantações de palmeiras de óleo é de propriedade de Pequenos Proprietários Independentes, portanto, precisa incentivar os Pequenos Proprietários Independentes a desempenhar um papel ativo na implementação da certificação ISPO.

Implicações práticas: Ao descobrir os obstáculos enfrentados por pequenos proprietários independentes e avaliar a eficácia das instituições no processo de certificação ISPO, a pesquisa fornece percepções acionáveis para os formuladores de políticas e as partes interessadas. A ênfase do estudo no desenvolvimento de planos responsivos e no fortalecimento do ecossistema independente de pequenos proprietários acrescenta uma dimensão prática ao discurso mais amplo sobre o desenvolvimento sustentável de óleo de palma.

Originalidade/valor: Esta pesquisa se destaca por seu foco específico em pequenos proprietários independentes, o exame matizado dos desafios da ISPO no nível básico, a adoção...
1 INTRODUCTION

Oil palm is one of the plants that is often the center of world conversation, various motives appear to accompany the debate on the growth of Indonesian oil palm, from economic, environmental, social motives, global market competition, and so on. For Indonesia, palm oil has a very strategic value to support national development, 1) the prime mover for agribusiness development from upstream to downstream, 2) a large enough job provider and source of income for farmers, and 3) one of the main sources of income for farmers. Commodities that have a major role in generating foreign exchange for the country.

Oil palm plantations as a labor-intensive industry provide business opportunities for the community, it is recorded that industrial plantations can absorb 4.2 million direct workers and 12 million indirect workers. On the other hand, independent smallholders can absorb 4.6 million people. Oil palm dominant areas have lower poverty rates than other areas. This context shows that the palm oil industry contributes to the achievement of the 2030 SDGs (Sustainable Development Goals).

The development of the Indonesian palm oil business is not easy, various challenges are faced. First, the competition for the vegetable oil business in the international market, the price of CPO and KPO is relatively cheap compared to other vegetable oils, and the production of palm oil is greater than other vegetable oils, it can be used as raw material for biodiesel products as well as other derivative products (food ingredients, cosmetic ingredients, and materials for other daily needs). Second, environmental issues (environmental degradation, global warming, land burning, deforestation) and social issues (welfare, agrarian conflicts, human rights violations, social disparities). Third, the principles of managing the growing oil palm plantation business, the principles of sustainable development, green palm, and clean production. These various principles are behind the emergence of various kinds of certification. Fourth, the protection carried out by several palm oil importing countries as a form of
the state's nationalist economic movement. **Fifth**, it is not only palm oil-producing business actors who are certified, in the future palm oil buyers will also be certified.

![Figure 1: Graphical image of land with productive or mature crop (TM) category 2021](source)

Based on the 2019-2021 national flagship plantation statistics report from the Directorate General of Plantations, Ministry of Agriculture, the total area of Indonesian oil palm land reaches 15.08 million hectares (ha) in 2021. 12.59 million hectares (ha) or 83% of the total area. Therefore, most of Indonesia's palm oil supplies are used for export needs.

The palm oil sector plays an important role in the national economy. Growth in this sector can improve people's welfare and reduce poverty. In 2017 the total export value of palm products was recorded at 239 trillion rupiahs, this amount is quite large compared to exports in the oil and gas sector. In the energy security sector, the implementation of the mandatory biodiesel policy (August 2015 to June 30, 2018) resulted in foreign exchange savings of US$ 2.52 billion or equivalent to 30 trillion rupiahs (Coordinating Ministry for Economic Affairs, 2019). However, at the global level, the European Parliament voted on January 17 and the result approved a proposal entitled *Report on the Proposal for a Directive of the European Parliament and the Council on the Promotion of the Use of Energy from Renewable Sources*, one of the points of the proposal prohibiting the use of palm oil for biodiesel starting in 2021, then there is a discourse to implement a single certification for palm oil production that enters the European Union.

Indonesia has implemented the *Indonesian Sustainable Palm Oil System* (ISPO) since 2011. ISPO is designed to ensure that Indonesian palm oil is managed according to *Good Agricultural Practices/GAP* following sustainable social, economic, and
environmental principles. ISPO certification has four main objectives, namely encouraging plantation businesses to comply with regulations issued by the government, increasing awareness of oil palm entrepreneurs to improve the environment, implementing sustainable oil palm plantation development, and increasing the competitiveness of Indonesian palm oil in the international market.

The initial literature related to this study states that (Astari & Lovett, 2019) found that the need to strengthen the capacity of smallholders in realizing sustainable oil palm plantations, is due to concerns that smallholders will be marginalized from the market if they cannot meet the requirements for ISPO certification, it is necessary to make efforts to increase the capacity of smallholders to meet standards through the presence of institutions. Based on Agustani’s research, it was found that the policy strategy in plantation management aspects of the social and economic environment based on ISPO criteria is to maintain coordination of community institutions in environmental management (Agustiani, 2018), besides that (Fadhillah et al., 2021) stated that the majority of efforts made to achieve sustainability through the ISPO program were only counseling, while the extension was considered to have less role in providing effective education, information dissemination, facilitation, consultation, supervision, and evaluation monitoring to oil palm farmers.

According to Christiawan in his research that one of the influences that can hinder the implementation of ISPO is the absence of incentives for farmers in the palm oil industry, as well as the requirements that are quite complicated to follow (Christiawan, 2020). Therefore, the role of institutions is needed in facilitating the ISPO certification process which ensures the sustainability of the oil palm plantation industry. Given the large area of oil palm that needs to be increased in productivity and influenced by the conditions of poverty after the import ban, it is not possible for farmers to intensify without assistance (Zen et al., 2021). ISPO is an effort to improve upstream industry policies, so the implication is that a responsive plan is needed in the development of these policies to support oil palm sustainability by strengthening the independent smallholder ecosystem (Harsono et al., 2012). (Apriyanto et al., 2021), (Sabinus et al., 2021), and (Ivancic & Koh, 2016) said that one of important things in ISPO certification is the principle of legality seeds or certified palm oil seedings to meet the standards of sustainable management of life and natural resource, the readiness of independent oil palm farmer in the ISPO implementation is structurally stated to be not ready because the
income from palm oil is not the main or dominant source of income. These problems need to be addressed to maintain Indonesian palm oil products competitiveness by realizing sustainable palm oil development. This is because people are still conventional in managing information about improving the ecosystem of oil palm plantations (Hasnah et al., 2021). ISPO’s objectives are operationalized in 7 principles, compliance with legal business permits, the implementation of plantation management based on good agricultural practices (GAP) protecting primary forest and peat land, conducting and monitoring environmental management, showing responsibility towards employees, contributing to social and economic empowerment of society, and commitment to continuous improvements in sustainable palm oil production (Hidayat et al., 2018).

ISPO certification for smallholders (farmers) is currently still low, as one of the special certification subjects in the Strengthening of the ISPO Certification System, smallholders or independent smallholders are required to be able to actively participate and be integrated with a sustainable oil palm plantation system. The implementation of ISPO will be carried out on a mandatory basis down to the independent smallholder level as one of the main keys to achieving sustainable oil palm plantation governance. Riau Province is the area with the largest oil palm plantation area in Indonesia, data from the Directorate General of Plantation in 2014 the plantation area of 2,290,736 ha with a total production of 6,993,241 tons. The Ministry of Agriculture has 346 ISPO-certified companies or about 20.49 percent of the total Indonesian palm oil companies. In 2015, out of 187 palm oil companies in Riau, 22 of them had obtained ISPO certificates of 11.7 percent.

The issue of institutional and farmer empowerment becomes an interesting social phenomenon to be observed more deeply and this is what drives According to Mardikanto and Soebiato in (Lumangkun et al., 2021), an institutional concept is a general tool that is adhered to by a community (society). Still according to Mardikanto and Soebianto, the word institutional is often associated with two meanings, namely "social institution" or social institutions and "social organization" or social organization. Whatever it is, in principle a form of social relation can be called an institution if it has four components, namely: (1) a person component, where the people involved in an institution can be identified; (2) the component of interests, where these people are bound by one interest or goal so that they are forced to interact with each other; (3) The rule component, in which each institution develops a set of agreements that are held together so that one can
predict the behavior of other people in the institution; (4) Structural components, where everyone has a position and role that must be carried out correctly. Therefore, the purpose of this study is to determine the role of independent smallholder institutions and their obstacles in realizing oil palm plantation governance following ISPO principles/criteria/indicators.

The palm oil sector holds a pivotal position in the national economy, contributing significantly to wealth enhancement and poverty reduction. The substantial export value of palm products in 2017, totaling 239 trillion rupiahs, underscores its economic significance, surpassing exports in the oil and gas sector. Moreover, the mandatory biodiesel policy implemented from August 2015 to June 30, 2018, resulted in substantial foreign exchange savings. However, the global landscape presents challenges, with the European Parliament proposing restrictions on the use of palm oil for biodiesel starting in 2021, prompting discussions on a unified certification for palm oil entering the European Union. Indonesia, recognizing the importance of sustainable practices, introduced the Indonesian Sustainable Palm Oil System (ISPO) in 2011. ISPO aims to ensure the management of Indonesian palm oil adheres to Good Agricultural Practices (GAP) and follows sustainable principles. The certification has multifaceted objectives, including regulatory compliance, environmental awareness, sustainable development, and enhancing the international competitiveness of Indonesian palm oil. The primary objective of this study is to investigate the role of independent smallholder institutions in achieving governance in oil palm plantations according to ISPO principles, criteria, and indicators. The research seeks to answer key questions regarding the capacity of smallholders to meet ISPO standards, the challenges they face, and the effectiveness of institutions in facilitating the certification process.

The literature review highlights concerns that smallholders may face marginalization in the market if they fail to meet ISPO certification requirements. Existing research indicates the need to strengthen the capacity of smallholders and emphasizes the importance of institutions in coordinating environmental management efforts. Despite efforts, there are observed shortcomings in the role of extension services in effectively educating and facilitating oil palm farmers. Furthermore, obstacles such as the absence of incentives, complex requirements, and the unpreparedness of smallholders pose challenges to the successful implementation of ISPO. Given the substantial oil palm plantation area in Riau Province, the study's focus on this region is justified. The low
ISPO certification rate among smallholders in the province, coupled with its significance in the national palm oil industry, underscores the importance of investigating the role of institutions in this context. Addressing these challenges is crucial for maintaining the competitiveness of Indonesian palm oil products and achieving sustainable palm oil development. The study aims to contribute valuable insights to policymaking and development strategies by comprehensively understanding the dynamics between independent smallholder institutions and ISPO governance principles.

2 THEORETICAL FRAMEWORK

Soekanto (2002) suggests that role is a dynamic dimension of a person's position or status. If a person fulfills the rights and obligations inherent in his position, it reflects the implementation of his role. These two elements cannot be separated and are interconnected. Individuals will have roles that are in accordance with the social norms they follow. This also means that a person's role determines his contribution to the surrounding community. Roles focus more on function, adjustment, and are considered as a process. Farmer institutions, in essence, have several roles, which involve: (a) responsibility in the organizational context (interorganizational tasks) to bridge the relationship between society and the state, (b) resource-related tasks (resource tasks) which include mobilization and management local resources (labor, capital, materials, information) to achieve community goals, (c) service responsibilities (service tasks) which may include service requests that reflect development goals or coordinating requests from local communities, and (d) responsibilities interorganizational (interorganizational tasks) involving local requests to external organizations (Esman and Uphoff, as cited in Garkovich, 1989).

The theoretical framework relevant to this study encompasses both micro and macro institutional perspectives regarding the decision to become a global farmer, and it integrates the property rights theory of the firm to address governance mechanisms for intricate activities. Macro-level considerations draw from North (1990) concerning personal and impersonal trade, while micro-level elements are grounded in Barzel's property rights theory (2003), focusing on the role of the state, enforcement power, and the institutional environment. We posit that for farmers to transition across regions, they assess the presence of formal institutions to facilitate contracts in an impersonal manner, especially considering that newcomers may be unfamiliar with local social groups, at least
initially. From the micro institutional perspective, insights are derived from contract governance, emphasizing the existence and structure of complex contractual relationships designed to support the integration of production into the market. Esman and Uphoff in (Abriandi et al., 2019), mention several roles of farmer institutions, the results of the research are analyzed using this theory, which explains several measurement indicators. Independent smallholder institutions are important in influencing the implementation of ISPO certification policies, firstly, half ownership of oil palm land in Indonesia is owned by independent smallholders, secondly, the contents of the ISPO certification policy can realize sustainable independent smallholder plantation governance, third, independent smallholder institutions can contribute to increasing the number of independent smallholders. ISPO certification, fourth, independent smallholder institutions can become promoters to monitor and ensure various managements of oil palm plantations at the local level, fifth, institutional strengthening of independent smallholders can affect the continuity or sustainability of sustainable oil palm plantations. The expected output is the establishment of an ISPO-certified independent smallholder organization for oil palm plantations and the utilization of sustainable oil palm plantation products.

3 METHODOLOGY

This study focuses on the application of the theory of Esman and Uphoff in (Abriandi et al., 2019), mentioning several roles of farmer institutions, with indicators namely: Interorganizational Tasks, Resource Tasks, Services Tasks, and extra-organizational tasks. This study uses a mixed research method, which combines the process of a quantitative approach in data collection and a qualitative approach in analyzing descriptively. The location of research was carried out in three regencies in Riau Province, namely Rokan Hilir Regency, Rokan Hulu Regency, and Pelalawan Regency. Selection of representative research sites using the Multistage Cluster Sampling method. Multistage Cluster Sampling is a detail of the Cluster Sampling method.
A sampling of independent oil palm farmers was carried out by *simple random sampling* so that each selected area had a representative sample. This method was used with the consideration that the location of the research locations was scattered and the characteristics of independent smallholders were diverse. With this method, each independent oil palm farmer in each selected research area has the same opportunity to become a research subject. The sample size in each research area was set at 30 research respondents. The determination of the sample size refers to the opinion of Gay and Diehl in (Zellatifanny & Mudjiyanto, 2018) which states that for correlational research, the minimum sample is 30 subjects. Referring to Gay and Diehl's income, by taking a minimum sample, the overall sample size of the study is 810 respondents.

This study uses primary data and secondary data. Primary data was collected through structured interviews using a questionnaire to research respondents of independent oil palm smallholders and non-structured interviews with several additional research informants. Broadly speaking, primary data collected from respondents include Characteristics of independent smallholders, Knowledge of independent smallholders towards ISPO certification, Readiness and independence of smallholders in ISPO certification, and Ability of farmer groups (Plan, Implement and develop leadership). Primary data obtained from the parties (Plantation Service, Companies, ISPO Institutions, Association of Oil Palm Smallholders, District and Village Governments), among others include Institutional rights and obligations in implementing ISPO certification, Institutional responsibilities in achieving ISPO principles/criteria/indicators, Forms of direct/indirect relationships between stakeholders related to ISPO certification. 
implementation, and Programs and activities implemented in ISPO certification implementation. Secondary data is obtained from various related sources such as research results and statistical data. The results of previous research collected include (i) Independent Smallholder Institutions, (ii) ISPO Certification Implementation, (iii) independent smallholder institutions and sustainable plantation management, and (iv) plantation statistical data from villages, sub-district, district plantation offices, Province and the Directorate General of Plantations.

The analysis in this study uses primary and secondary data collected and analyzed to produce an overview of independent smallholder institutions. The data is also used to support the next stage of the analysis process. Gap Analysis on the level of institutional readiness of independent smallholders refers to the parameters or variables of principles, criteria, and indicators of sustainable Indonesian oil palm plantations, based on PERMENTAN No 38 of 2020. namely, 1) Compliance with Regulations and Protection, 2) Application of good plantation practices, 3) Management of the Environment, Natural Resources, and Biodiversity, 4) Implementation of Transparency and 5) Continuous Business Improvement. The results of the measurement of these parameters or variables will then be grouped into 3 (three) categories, namely: 1) First Group (Independent), 2) Second Group (Pioneers), and 3) Third Group (Beginners).

4 RESULTS AND DISCUSSION

Referring to the principles of compliance with regulations and protection as well as the application of good plantation practices which are the basis for categorizing independent smallholders' readiness to implement ISPO policies. It can be seen that independent smallholders in the three study locations, namely Rokan Hilir, Rokan Hulu, and Pelalawan Districts, farmers can be categorized into three categories, namely novice farmers, and pioneer farmers, independent farmers. The following is a data table on the readiness of independent smallholders for ISPO certification as a form of sustainability in oil palm plantations.
Table 1: Readiness of Independent Smallholders for ISPO Certification

<table>
<thead>
<tr>
<th>Parameter/ Variable based on principle</th>
<th>Criteria/Variable</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with Regulation and Protection ISPO</td>
<td>Legality and Planter Management</td>
<td>Proof of Land Ownership which legitimate</td>
</tr>
<tr>
<td></td>
<td>Location planters</td>
<td>Planter’s Land refers to da determiner n the System Room</td>
</tr>
<tr>
<td>Obligation permission environment</td>
<td></td>
<td>Have permission environment following SPPL</td>
</tr>
<tr>
<td>Application Practice Plantation is the good one</td>
<td>Availability of institutional farmer groups or cooperative</td>
<td>Existence and document legality formation institutional group farmer or cooperative planters joined in institutional group farmer or cooperative</td>
</tr>
<tr>
<td>Management planters</td>
<td></td>
<td>Ownership Document activity plan operational planters, group farmer/cooperative owns</td>
</tr>
<tr>
<td>Opening land</td>
<td></td>
<td>have and doing SOUP instructions work method land clearing without burn</td>
</tr>
<tr>
<td>Seeding</td>
<td></td>
<td>Use of seeds according to standard Government Ownership of records origin seed</td>
</tr>
<tr>
<td>Planting on land with minerals and/or peat</td>
<td></td>
<td>have and doing SOUP Suitable planting gap</td>
</tr>
<tr>
<td>Control Organism bully Plant (OPT)</td>
<td></td>
<td>Available SOP Guidelines pest control integrated / IPM.</td>
</tr>
<tr>
<td>Harvest</td>
<td></td>
<td>Have the facilities pest control in accordance instructions technical</td>
</tr>
<tr>
<td>Freight Fruit</td>
<td></td>
<td>Have SOUP or fruit technical reference harvested</td>
</tr>
<tr>
<td>Management Environment Life, natural resources, and Diversity Biological</td>
<td>Prevention and Countermeasures Fire</td>
<td>To do prevention and countermeasures fire together following guidelines</td>
</tr>
<tr>
<td>Application Transparency</td>
<td>Sales and deal price TBS</td>
<td>Availability Notes Price TBS and Realization Purchase by company</td>
</tr>
<tr>
<td>upgrade Business _Keep it up</td>
<td>Preparation of Data and Information</td>
<td>Service SOPs information</td>
</tr>
</tbody>
</table>

Source: Prepared by authors
The identification results in the table above can help independent smallholder institutions to identify various obstacles or obstacles that may be faced, the analysis of constraints is carried out using a SWOT analysis of strengths, weaknesses, opportunities, and threats. The SWOT analysis was carried out on 3 (three) forms of independent smallholder institutional groups, this is intended to see the extent of the obstacles and obstacles faced by independent smallholder institutions in fulfilling the ISPO principles. The parameters used in the SWOT analysis are as follows:

<table>
<thead>
<tr>
<th>External Factor</th>
<th>Internal Factor</th>
<th>Opportunity (Opportunity)</th>
<th>Threat (Threat)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strength</strong></td>
<td></td>
<td>Utilization Strategy</td>
<td>Utilization Strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Institutional Strength</td>
<td>power institutional farmer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Independent farmers</td>
<td>self-supporting in the face of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>utilize opportunity which</td>
<td>various obstacles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>is in fulfillment</td>
<td>may happening</td>
</tr>
<tr>
<td></td>
<td></td>
<td>principle ISPO</td>
<td>fulfillment principle ISPO</td>
</tr>
<tr>
<td><strong>Target Parameter:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>List of available opportunities to strengthen capital social institutional independent farmer in certification implementation ISPO</td>
<td></td>
</tr>
<tr>
<td><strong>Weakness</strong></td>
<td></td>
<td>Utilization Strategy</td>
<td>Strengthening strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opportunities exist for fix</td>
<td>independent farmer institutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>various institutional weakness</td>
<td>grassroots based for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>independent farmer in fulfillment principle ISPO</td>
<td>strengthening social capital</td>
</tr>
<tr>
<td><strong>Target Parameter:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>List various weakness to strengthen capital social institutional independent farmer in certification implementation ISPO</td>
<td></td>
</tr>
<tr>
<td><strong>Source:</strong> Prepared by authors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The presented table serves as a strategic analysis framework, systematically examining the interplay between external and internal factors while concentrating on opportunities and threats in relation to strengths and weaknesses. The analysis is methodically organized, presenting insights through the lens of utilization strategies and strengthening strategies across various factors. External opportunities are explored, highlighting the utilization of institutional strength by independent farmers to adopt a self-supporting stance in overcoming potential obstacles. The target parameter in this
context involves identifying and cataloging available opportunities to fortify social and institutional capital within independent farmers during the implementation of ISPO (Indonesian Sustainable Palm Oil) certification. Conversely, threats are addressed with a recommended utilization strategy advising independent farmers to be self-subsistent during the ISPO certification process, potentially encountering diverse challenges. The corresponding target parameter involves listing various strengths to fortify institutional and social capital, with a specific focus on surmounting weaknesses and obstacles in adhering to the fulfillment principle of ISPO.

Turning to internal factors, the table delineates strategies for leveraging strengths and addressing weaknesses. The utilization strategy underscores the importance of independent farmers utilizing their institutional strength to fulfill the principles of ISPO. Simultaneously, the target parameter directs attention to identifying opportunities for strengthening social and institutional capital within independent farmers during the ISPO certification implementation. Furthermore, the table advocates for an astute utilization strategy to rectify various institutional weaknesses among independent farmers in line with the fulfillment principle of ISPO. The corresponding target parameter involves cataloging diverse weaknesses as a prerequisite to bolstering social and institutional capital during the ISPO certification implementation.

In summary, the table encapsulates a holistic approach to navigate opportunities and mitigate threats by capitalizing on strengths and addressing weaknesses. It underscores the pivotal role of utilizing institutional strength and social capital throughout the ISPO certification process, giving due consideration to both grassroots and independent farmer institutions. The strategies articulated in the table are geared towards fostering self-sustainability and resilience, aligning seamlessly with the overarching principles of ISPO. Some of the institutional barriers to implementing ISPO as a form of realizing sustainable oil palm plantations can be summarized as follows:

1. The awareness of independent smallholders to be involved in ISPO certification tends to be low, so far the independent smallholder institutions have only focused on economic activities (savings and loans) and have not led to institutions that support farmers to meet the principles and criteria of ISPO certification.
2. Independent Smallholder Institutions have not become a forum for capacity building and capability for smallholders or institutions to fulfill GAP (Good Agriculture Practice) and BMP (Best Management Practices).

3. The bargaining position of independent smallholder institutions is still low so members who are in the institution have not felt the benefits of their participation as members of farmer institutions.

4. The involvement of the village government, Bumdes, traditional leaders & community leaders, as well as independent farmer groups, have not been simultaneously and integrated with providing guidelines related to understanding the technical culture of cultivation and sustainable management of oil palm plantations so that they tend to produce low productivity farmer activities.

5. Oil palm cultivation is not the main support for household income, there is a diversification of livelihoods. The economic rationale is the reason that there is very little interest in independent oil palm smallholders being involved in the ISPO certification system.

6. The sanctions and risks that must be faced are also seen as uncertain, so it is understandable, that the participation of independent smallholders to invest in ISPO certification is also low.

Palm oil is one of the most important commodities in Indonesia (Nasution et al., 2020), sustainable certification schemes were introduced to the palm oil industry as a responses to address the negative environmental and social impacts associated with the development of this industry (Majid et al., 2021). However, the implementation of ISPO is still limited and voluntary, and the readiness of independent smallholders is crucial and must be considered (Dharmawan et al., 2019). Development of palm oil plantations in anticipating environmental damage, the government of Indonesia imposes ISPO policy to show that Indonesian crude palm oil products are environmentally friendly (Syahza & Asmit, 2020). This is supported by the ability to compete with other countries that emphasize quality in the oil palm plantation industry (Heriyanto et al., 2021). This quote underlines the importance of grassroots institutions in the context of ISPO (Indonesian Sustainable Palm Oil) certification for oil palm plantations. Faheem (2023) highlights the crucial role of these institutions in empowering local communities through providing autonomy to elect their representatives and providing a platform to address related local issues. This reflects the positive contribution of grassroots institutions to community
participation in the ISPO certification process, where social justice and desire are prioritized. Faheem also emphasizes India's rich history of grassroots democracy, providing insight that the integration of western political thought into the Indian context is nothing new. This can be interpreted as a recognition that grassroots democratic values have strong roots in Indian history and culture, which can serve as a model or inspiration for similar practices in the palm oil plantation sector, the citation includes the analysis of De Sá Resende et al. (2023) regarding organic production systems. They describe this system as a collection of scientific and social technologies applied to agriculture that result in low energy costs. This brings awareness to the importance of sustainable agriculture in the context of ISPO certification, where practices such as low-energy farming become relevant. Recognition of organic farming practices that have been used for thousands of years by indigenous peoples around the world conducting historical teaching and learning courses in sustainable agricultural practices. This can be considered an important foundation in establishing sustainability principles in palm oil plantation certification, including in the ISPO context.

The various policies previously mentioned, the government has provided ample space for independent smallholders to play an active role in government programs, especially programs related to sustainable oil palm plantation governance, such as the ISPO Certification policy. ISPO certificate is the commitment of the Government of Indonesia to produce palm oil sustainably and sustainably, the certification system is regulated in the Minister of Agriculture Regulation Number 11 of 2015, concerning the Indonesian Sustainable Palm Oil Certification System (ISPO). The certification system is intended to ensure that oil palm plantation companies and oil palm plantation companies have correctly and consistently applied ISPO principles and criteria in producing sustainable palm oil.

Policy understanding regarding the definition and concept of sustainability in the management and development of oil palm plantations should be interpreted as an oil palm plantation management and development system that complies with implementing all economic, socio-cultural, and ecological aspects, as well as all applicable regulations. So compliance and implementation in all these aspects will be a measure for implementing the implementation of the ISPO certification system (Fahamsyah & Pramudya, 2017). The routine strategy that must be carried out and maximized every year is the development of human resources for the palm oil industry players with training and
innovation activities, especially independent smallholders to be able to compete at the international level (Nayantakaningtyas, 2012). Based on Mulono et al's research, it was found that the readiness to implement ISPO on independent smallholders by conducting an assessment of 4 principles, 20 criteria and 47 indicators concluded that the indicators had been implemented but only some farmers understood and were willing to implement them (Mulono Apriyanto, Muhammad Arpah, 2020). (Rosaliza, 2022) mentioned that the concept of empowerment aims to find new alternatives in community development, this is very necessary for increasing the effectiveness of the sustainability of oil palm plantations through independent smallholders.

Independent Smallholder Institutions play an important role in influencing the success or failure of the implementation of ISPO certification, in general, the ISPO certification policy is still in demand by large companies while the majority ownership of oil palm plantations is owned by Independent Smallholders so it is necessary to encourage Independent Smallholders to play an active role in implementing ISPO certification. In the life of the farming community, the position and function of farmer institutions are part of social institutions that facilitate social interaction in a community. Various rules and norms in social institutions will also affect the form of interaction that occurs in the farming community, there are at least 3 (three) main keywords in the institutional context that need to be considered, norms, behavior, and social conditions relationships. The significance of the three keywords is reflected in the behavior and actions of farmers, both in individual actions, as well as in collective and communal actions. Every decision taken will always be related to or limited by the norms and social institutions of the farming community in their environment. Such conditions indicate that the decision-making process in farming communities is a community-based action that can be used as an entry point for strengthening ISPO regulations.
On average, most of the independent smallholders in the study locations have joined institutions in the form of farmer groups, associations, and farmer cooperatives with a percentage of 58.6%. It was found that not all of the independent smallholders who were members of farmer organizations had membership cards. The dominant study area without evidence of institutional membership is Rokan Hilir Regency. The reason the farmers do not have proof of membership is that the administrators of the institution did not provide proof that the farmers were included in the group. In addition, an average of 41.3% of independent smallholders were identified who had not yet joined a farmer group or cooperative. The dominant independent smallholder who did not join the institution was Rokan Hulu Regency (47.8% of the total 270 independent smallholders). Esman and Uphoff in (Abriandi et al., 2019), mention several roles of farmer institutions, the results of the research are analyzed using this theory, which explains several measurement indicators. Independent smallholder institutions are important in influencing the implementation of ISPO certification policies:

a. **Interorganizational Task**

In achieving the goal of mediating the community or the state, independent smallholder institutions can become promoters to monitor and ensure various management of oil palm plantations at the local level. And institutional strengthening of independent smallholders can affect the continuity of the sustainable palm oil plantation business, to be able to support the implementation of the fulfillment of the principles and criteria for ISPO certification.
The diagram above shows that in the three study districts, Rokan Hulu, Rokan Hilir, and Pelalawan, the majority of oil palm farmers are members of farmer groups in the district. Based on the data above, it can be concluded that Pelalawan Regency has the smallest quota for farmers who are not incorporated into institutions, while Rokan Hulu Regency has the largest quota for people who are not incorporated into institutions. It can also be concluded that the Rokan Hilir district has the most farmer groups compared to the other two districts.

b. Resource Tasks

Aims to mobilize local resources such as labor, capital, materials, and information, and manage them to achieve community goals, namely independent, participatory independent smallholder institutions and support the implementation of the ISPO certification principles and criteria.
A good farmer's educational background is the capital to develop an oil palm plantation business. With the ability to read and write, farmers can learn about techniques and ways of self-taught oil palm gardening. How, by reading articles or news about gardening. Including reading the rules and how to use materials and tools for oil palm plantations. The graph above shows that the level of education of oil palm independent smallholders is relatively good. The average respondent has taken 9 years of compulsory education. However, in Rokan Hilir Regency, there are more farmers with an elementary school education background than in the other 2 study districts, which is 32.1%. This paragraph emphasizes the importance of farmers' educational background in the development of oil palm plantation businesses. The ability to read and write is a crucial asset for farmers to independently learn techniques and methods of oil palm cultivation. This involves reading articles or news about farming, including understanding the rules and how to use materials and tools for oil palm plantations. In connection with ISPO certification, the sustainability and success of oil palm plantations can be influenced by the farmers' level of education. In the context of ISPO certification, farmers' knowledge of sustainable practices, rules, and technical guidelines is crucial. A good level of education can ensure that farmers have sufficient understanding to implement the necessary sustainable practices to meet ISPO standards.

Furthermore, the citation from Kassim et al. (2023) suggests that the sustainability of community safety, in this case, the risk of road accidents, is related. Although this topic
is not directly related to oil palm plantations, the citation highlights the importance of maintaining balance in the socio-economic system. In the context of ISPO certification, this balance may include aspects such as the safety and well-being of the communities around oil palm plantations. In conclusion, the paragraph indicates that farmers’ education plays a crucial role in the sustainability of oil palm plantations, relating to the understanding and implementation of sustainable practices, as well as safety and balance within the community. Improving farmers’ education can support efforts towards better and more effective ISPO certification, integrating sustainable practices into the oil palm industry (Zhukov, R et al. 2023).

c. Service Tasks

Aims for service requests that describe development goals or coordination of local community requests.

![Figure 6: Type of FFB Container for Oil Palm Independent Smallholders](image)

Source: Prepared by authors

Based on the diagram above, it can be seen that on average, oil palm farmers prefer to sell through agents/teachers. This is because most independent smallholders have a relatively small average yield, so it is not possible to sell them directly to PKS. The reason the tauke is the choice for the community is that in some areas no cooperative oversees the sale of the harvest, and if selling with the take, the community can also apply for a loan to the tauke with installments every harvest without interest and flexible installments.
that adjust to the harvest. However, in some areas, some have started to form farmer groups and sell their harvests through cooperatives with the aim that the profits from each sale can later be used for common interests, such as purchasing fertilizers, and oil palm plantation business tools, and gardening from these farmers. The data above also shows that people who have a fairly large area of land and have relatively large yields prefer to sell directly to the Palm Oil Mill for the reason that the price comparison offered is higher than sales through taking or cooperatives.

Table 3: Recap of Institutional Activities in Study Villages

<table>
<thead>
<tr>
<th>No</th>
<th>District/Village Studies</th>
<th>Type Institutional</th>
<th>Activity Institutional</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Subdistrict Chart Sinembah</td>
<td>Sapta Chart game</td>
<td>KUD</td>
<td>Purchase TBS, Sale Fertilizer, Save Borrow, - Fertilizer Subsidy</td>
</tr>
<tr>
<td>1 Sapta Chart game</td>
<td>Surge Farmers</td>
<td>Group PSR Farmers Program Rejuvenation Palm oil</td>
<td>Training Farmer, Meeting Routine</td>
</tr>
<tr>
<td>2 Surge Farmers</td>
<td>devotion Prosperous Association</td>
<td>PSR Farmers Program Rejuvenation Palm oil</td>
<td>Benefits RSPO, Meeting Routine</td>
</tr>
<tr>
<td>3 River betel nut Farmers</td>
<td>B. Subdistrict Pujud</td>
<td>Group PSR Farmers Program Rejuvenation Palm oil</td>
<td>Training Farmer, Meeting Routine, - Fertilizer Subsidy</td>
</tr>
<tr>
<td>1 superiority Pujud</td>
<td>poor Nobleman</td>
<td>Farmers</td>
<td>Benefits RSPO, Meeting Routine</td>
</tr>
<tr>
<td>2 Balam Perfect City Farmers</td>
<td>3 bottom Ox Cooperative</td>
<td></td>
<td>Fertilizer Subsidy, Purchase TBS</td>
</tr>
</tbody>
</table>

Source: Prepared by authors

The table presents an overview of institutional activities and types within specific districts and villages, focusing on palm oil-related initiatives. In Subdistrict Chart Sinembah, various entities engage in institutional activities. Sapta Chart, identified as a KUD (Farmers Cooperative), is involved in the purchase of TBS (Fresh Fruit Bunches), the sale of fertilizers, and savings and borrowing activities. Meanwhile, Surge, categorized as a Farmers Group, participates in the distribution of fertilizer subsidies and is part of the Program Rejuvenation Palm Oil initiated by PSR Farmers. The Devotion Prosperous Association, operating in the same subdistrict, is engaged in training farmers, benefiting from RSPO (Roundtable on Sustainable Palm Oil), and conducting routine meetings. Moving to Subdistrict Pujud, the table outlines the institutional activities of...
groups such as Superiority Pujud and Poor Nobleman, both categorized as Farmers Groups. These groups are actively participating in the Program Rejuvenation Palm Oil under the umbrella of PSR Farmers. River Betel Nut Association, also in Subdistrict Pujud, is involved in training farmers, enjoying RSPO benefits, and organizing routine meetings. Additionally, farmers in this subdistrict receive fertilizer subsidies. In Subdistrict Hall Jaya, the focus shifts to individual farmers and cooperatives. Sand White and Balam Perfect City Farmers, both categorized as Farmers, benefit from fertilizer subsidies. On the other hand, the Bottom Ox Cooperative is engaged in the purchase of TBS.

The presented table thus provides a snapshot of diverse institutional activities related to palm oil cultivation across different districts and villages. These activities range from cooperative endeavors to farmers’ groups and associations, emphasizing the multifaceted nature of initiatives such as fertilizer subsidies, RSPO benefits, and participation in the Program Rejuvenation Palm Oil. The table serves as a valuable reference for understanding the varied institutional engagements within the palm oil sector at the local level. In the Minister of Agriculture of the Republic of Indonesia Number 38 of 2020, it is explained in detail that smallholders (independent farmers) can join farmer groups or cooperatives in the management of ISPO certification. Evidence of independent smallholders joining the institution is to have proof of membership. It can be in the form of a Membership Card or Certificate. The inclusion of independent smallholders in farmer institutions is used as an indicator to see the readiness of smallholders for ISPO certification obligations. Independent smallholders who have joined farmer institutions can be categorized as smallholders ready for ISPO certification. Evidenced by ownership of a membership certificate. The majority of independent smallholders who are members of institutions in the form of farmer groups, associations, and cooperatives already have membership cards. However, other farmers do not have a membership card.

d. Extra-organizational task

This section requires a local request for the bureaucracy or external community organizations against interference by external parties. Every decision taken will always be related to or limited by the norms and social institutions of the farming community in their environment. Such conditions indicate that the decision-making process in farming
communities is a community-based action that can be used as an entry point for strengthening ISPO regulations.

Community participation in physical development is the important thing to carry out and handed over all decisions for many people (Lubis, B. S. J., & Mayarni, 2017). Therefore, the importance of farmer institutions is recognized in agricultural development, both in industrialized countries and developing countries such as Indonesia. However, the reality shows that farmers' institutions are still weak in developing countries, as well as the large obstacles to growing institutions in farming communities. Farmer institutions are expected to be able to help farmers get out of the problem of farmers' economic disparities, but until now they are still not functioning optimally. So collaboration with other stakeholders is needed to resolve or overcome the problems faced by farmers and institutions in maximizing efforts to sustain oil palm plantations.

Some of these problems are the unfulfillment of several institutional indicators such as Documentation of Dispute Area Identification Results, SPPL, Deed of Establishment, GAP SOPs, FFB Price Notes, and FFB Sales Cooperation Documents, while for indicators of the Secretariat, SK for Group Establishment, AD ART, Number of Members, the Management structure is fulfilled. This is so that the various ISPO principles and criteria can be achieved in regulating various managements of the Indonesian palm oil plantation industry so that the products produced have an environmentally friendly predicate and in the long term will increase the competitiveness of Indonesian palm oil in the international vegetable oil market.

5 CONCLUSION

Based on the research above from Esman and Uphoff in Freeman et al (2021) theory analysis, it can be concluded that independent smallholder organizations play an important role in realizing the sustainability of oil palm plantations, but there are still obstacles to making it happen, this is due to the quality of human resources both from farmers and institutions, and the long process of quantity ISPO certification as proof of the success of the concept of sustainability. Therefore, researchers see the importance of building collaboration in strengthening ISPO regulations in the future, because Independent Smallholder Institutions play an important role in influencing the success or failure of the implementation of ISPO certification, in general, ISPO certification policies are still in demand by large companies while the majority ownership of oil palm
plantations is owned by Independent Smallholders so need to encourage Independent Smallholders to play an active role in implementing ISPO certification. However, the most important thing is to focus on policy target groups, especially independent smallholders, a bottom-up approach to policy implementation can be an alternative ISPO certification policy, by looking at the role of the target group (Institutional Smallholders) in the implementation of ISPO certification.
REFERENCES


State University Press.


Standards Using LCA And AHP Methods. Sustainability (Switzerland), 12(10). Https://Doi.Org/10.3390/Su12104101


