Street-level Bureaucrat Analysis of Indonesia’s oil palm replanting implementation program

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Abstract. This article analyzes the Street-Level Bureaucrat Analysis of Indonesia's Oil Palm Replanting Implementation Program, focusing on the case in Indragiri Hilir District, Riau Province. PSR aims to renew smallholder oil palm plantations with sustainable varieties and reduce illegal land clearing. The Street Level Bureaucrat model was approved to ensure the responsibility and participation of farmers. This research analyzes Street-Level Bureaucrat Analysis of Indonesia’s Oil Palm Replanting Implementation Program. This study uses qualitative research methods with systematic literature reviews and case observation studies in Indragiri Hilir Regency, Riau Province. The results of the study show that this model has a significant effect on the implementation of PSR. The responsiveness of service providers to farmers’ needs increases. Service providers understand farmers' challenges and adapt programs according to field conditions. With intensive interaction between service providers and farmers, farmers’ understanding of decision-making has also increased. Overall, this analysis underscores the importance of the Street-Level Bureaucrats model in ensuring the effective implementation of the Smallholder Oil Palm Replanting Program in Indonesia. Responsiveness to community needs, farmer involvement in decision-making, and support for sustainable growth are the critical elements this model reinforces. Thus, using the Street-Level Bureaucrats model can optimize the results of PSR and its positive impact on society and the environment in Indonesia.

1 Introduction

The concept of Street-Level Bureaucrats was first introduced by Lipsky [1], where Street-Level Bureaucracy refers to front-line bureaucrats who provide direct services to the public. Street-level bureaucracy is considered to approximate the ideal concept of impersonal bureaucracy in decision-making. When it comes to their role, street-level bureaucrats can be criticized as implementers who may not be able to provide responsive and accurate services due to inadequate resources, increasing demands for services, confusing program objectives, and clients who may not be receptive. In the context of the implementation of the Smallholder Oil Palm Rejuvenation Program in Indonesia, Street-Level Bureaucrats are officials or government agents responsible for direct interaction and service delivery to farmers and oil
palm stakeholders. These front-line bureaucrats play a crucial role in ensuring the effectiveness of program implementation.

However, challenges such as resource limitations, the need to meet the increasing demand for rejuvenation services, unclear program objectives, and relationships with farmers who may not fully understand or accept the program can affect their ability to provide responsive and accurate services. Therefore, understanding and addressing these challenges are essential to achieving program goals and ensuring that Street-Level Bureaucrats effectively bridge the gap between government policies and local communities. According to data from the Food and Agriculture Organization (FAO), approximately 61% of the world's palm oil production comes from Indonesia. Indonesia has 10 provinces that serve as palm oil production centers, including Aceh, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, West Kalimantan, Central Kalimantan, East Kalimantan, and South Kalimantan. Based on prominent statistics from the Directorate General of Plantation in 2022, the total oil palm plantation area in Indonesia reached 15,380,981 hectares with a production of 48,235,405 tons [2]. In Indonesia, there are many oil palm plantation areas spread across marginal and productive lands, both on mineral and peatlands. Different soil conditions will provide different perspectives when rejuvenating oil palm plantations.

Previously, in an effort to sustain the role of oil palm, the government sought to develop smallholder oil palm plantations. Smallholder Oil Palm Rejuvenation is a program aimed at helping smallholder farmers renew their oil palm plantations with more sustainable and higher-quality oil palm trees while reducing the risk of illegal land clearing. Indonesia, as one of the world's palm oil producers, has long faced challenges related to smallholder oil palm rejuvenation. The Smallholder Oil Palm Rejuvenation Program (PSR) is one of the government's efforts to improve the productivity and sustainability of the oil palm sector. However, the implementation of this program often faces various complex field obstacles that affect its effectiveness. To understand the dynamics and challenges faced in the implementation of PSR, the role of "Street-Level Bureaucrats" becomes crucial. Aslinda [3] in her book explains that street-level bureaucrats have in-depth knowledge of resources and a clear understanding of their clients. The combination of these resources with discretionary capacity and strong interpretative abilities forms the basis for influencing policy intent [4].

Fig. 1. PSR realization in Indonesia 2017-2022.
The data in Fig. 1 above illustrates that the People's Oil Palm Rejuvenation Program (PSR) is implemented in various provinces and districts in Indonesia. The increasing number of provinces and districts involved in the program from year to year indicates a broader effort to engage more regions in the initiative for the rejuvenation of smallholder palm oil plantations. PSR implementation data reveals fluctuations from year to year, with the highest achievement reaching over 49% in 2019 and 2020, while the lowest achievement was recorded in 2018 at only 19.02%. However, in 2021, there was a significant decline in achievement, dropping to 15.41%.

Several factors influence the realization of the People's Oil Palm Rejuvenation Program (PSR), including limitations in resources and budget allocation for the PSR program, which can affect the ability to reach the set targets. Additionally, variations in regulations and local conditions across different regions can impact the level of participation and program effectiveness in each province and district. Environmental factors and the availability of suitable land for palm oil rejuvenation also play a crucial role in program realization, especially if land meeting the criteria is limited. Furthermore, technical or administrative constraints in the palm oil rejuvenation process at the farmer level can slow down or even hinder the overall program's target achievement. Therefore, a proper understanding and addressing of these factors are key to enhancing the effectiveness and success of the People's Oil Palm Rejuvenation Program in Indonesia. In Fig. 1, the increasing number of provinces and districts involved in the program reflects a broader effort to encompass more regions in the smallholder palm oil rejuvenation initiative.

The Model Street-Level Bureaucrats refers to the concept where street-level officers, such as field officers or field inspectors, play a key role in the implementation of public policies. They are at the forefront, directly interacting with the public, and are responsible for the implementation of programs such as the Smallholder Oil Palm Rejuvenation Program (PSR). Their role in decision-making, providing information, and executing policies greatly influences the program's outcomes. Street-level bureaucrats are bureaucratic officials who are in direct contact with public services or, in other words, bureaucrats who have direct access to the public or provide public services according to Lipsky [4, 5]. Regarding Street-Level Bureaucrats, it is said that as important actors in implementing public policies and interacting with the served population, these bureaucrats exhibit various behavior patterns in providing services to the public. However, these behavioral patterns are not uniform and vary between agencies and among individuals in delivering policy services to the public. Furthermore, Lipsky explains that the attitudes and behaviors of Street-Level Bureaucrats are influenced by the norms and culture of the communities in which the bureaucrats work [4, 5].

Since the influential work of Lipsky [4], the literature examining the role of Street-Level Bureaucrats (SLBs) has significantly evolved in understanding the factors that influence their use of discretion. Debates in this literature have emphasized research on how various aspects related to service users, organizational conditions, as well as the personal, social, and professional profiles of Street-Level Bureaucrats can affect their performance [6-9]. Moreover, this literature also indicates that policy implementation is an interactive process based on the day-to-day relationships between bureaucrats, clients, peers, and their superiors [10-16]. However, despite research suggesting a focus on interactions in policy implementation, such studies often consider only the social relationships among peers, while the relationship between bureaucrats and citizens is often overlooked [16]. This creates a theoretical gap in understanding the factors influencing these interactions, especially in the context of the Model Street-Level Bureaucrats.

Therefore, further study is needed to analyze how social networks and relationship profiles of bureaucrats affect policy implementation when they interact with citizens [12]. A deep understanding of these interactions is crucial, given the key role of SLBs as gatekeepers.
connecting policy to citizens [6]. They use their skills to make policy implementation more acceptable to citizens [17]. Actors in these interactions use communication mechanisms consisting of conjunctions, pronouns, relativization operators, and other grammatical tools that make clear what is within a specific social context [18]. The ability to act lies in actors' ability to make instrumental choices about their interaction practices [19]. The importance of actors' ability to interact in a specific social context is based on the use of communication mechanisms, such as words, pronouns, and other grammatical tools. Goffman [18] emphasize the importance of these mechanisms in communication. Moreover, the ability of actors to act in social interaction also involves their ability to make strategic choices in their communication practices, as described by [19]. This article will discuss the role of Street-Level Bureaucrats in the implementation of the PSR in Indonesia. It will analyze their role in supporting or hindering the achievement of program goals, as well as the challenges and dynamics they face in performing their duties. Through a deeper understanding of the role of Street-Level Bureaucrats, ways to improve the effectiveness of the PSR and support the sustainable development of the oil palm sector in Indonesia can be identified.

2 Methods

The research method employed in this study is qualitative post-positivism, which utilizes a post-positivist approach involving theory or principles to capture field realities [20]. Simultaneously, theoretical findings (generative theory) are developed through a systematic literature review in the review of previous studies. Furthermore, qualitative research is considered capable of addressing the research question, "What is the Street-Level Bureaucrats Model in the Implementation of the People's Oil Palm Rejuvenation Program in Indonesia?" using vos viewer and empirical data analysis. This issue involves various interests and perspectives, making qualitative research capable of delving into the complex views, motivations, and conflicts among these actors. Through a qualitative approach, researchers can understand how actors interact, collaborate, or conflict in their efforts to implement the PSR policy. Qualitative research can provide an in-depth analysis of how actor relationships change over time and how conflicts or collaborations occur. The qualitative approach can detail complex processes that may be overlooked.

Qualitative research can provide insights into the social impacts of the Street-Level Bureaucrats Model in the Implementation of the People's Oil Palm Rejuvenation Program in Indonesia, both positive and negative. The qualitative approach can help identify the direct impact of the policy on local communities and the environment, as well as how communities perceive and respond to the policy. In this stage, "it involves data sources, keywords, backward and forward searches, as well as ongoing evaluation of sources" [21]. To carry out this literature search process, the author evaluates the following search strategy steps: (a) selecting database sources; (b) choosing keywords and search criteria; (c) deciding whether to apply backward and forward searches; (d) evaluating the suitability of literature subsets. The systematic review process is depicted, and LRS-DB serves as a crucial data mining tool with the following objectives regarding actor relationships, governance, policy implementation, oil palm, and peat:

a. To filter and select relevant literature.
b. To trace the evolution of actor relationships, governance, policy implementation, oil palm, and peat over time.
c. To identify research trends over the past two decades.
d. To highlight the most studied research themes.
e. To identify less-explored research themes that have the potential for further development in the future.
3 Results and discussion

The theory of street-level bureaucrats asserts that street-level bureaucrats, as front-line service providers, continually face the dualism of being responsive to the needs of their clients and ensuring that policies are implemented perfectly. This dilemma forces them to adopt reactionary strategies to address their job challenges, which range from resource allocation to client screening. Street-level bureaucrats make choices regarding the use of scarce resources under pressure [3]. Street-level bureaucrats are heroes because they are caught in highly challenging situations on the one hand and strive to do their best on the other. Lipsky [4] argued that Street-Level Bureaucracy comprises individuals who carry out tasks and directly interact with the community. Lipsky [4] also suggested that the practice of street-level bureaucracy is a mechanism to cope with difficult situations, an effort to navigate the frustrating situation between the high demand for services and the limited resources available. Moreover, the demand for improved services never seems to cease. Lipsky [4] explained that street-level bureaucracy involves providing discretion over the dispensation of benefits or the allocation of sanctions. There are several dimensions to street-level bureaucracy [3]:

1. As bureaucrats who impose sanctions and restrict the lives of the community according to established policies or procedures, these bureaucrats influence people's actions in social contexts.
2. They determine citizens' eligibility for government benefits and sanctions. They oversee citizens' access to these programs. In essence, street-level bureaucracy mediates the constitutional relationship of citizens. In short, they hold the key to citizenship dimensions.

Chang [22] explains that the Model Street-Level Bureaucrats essentially assumes that bureaucrats maximize utility but expand the meaning of utility. Following Lipsky's [4] influential book, much prior literature focused on street-level bureaucrats' behavior as they attempted to alleviate job-related constraints. One characteristic of street-level bureaucrats is their face-to-face interaction with the community. This feature allows them to efficiently manage their ambiguous, complex, and uncertain tasks on a mass scale. From a service provider's perspective, Lipsky [4] summarizes the conditions of Model Street-Level Bureaucrats:

1. Resource constraints.
2. Physical and psychological threats.
3. Ambiguous role expectations.

Therefore, in addressing job-related challenges, street practitioners strategically arrange their behavior (or sometimes unavoidable). Connecting motivation to actual behavior, Downs [23] claimed that bureaucrats have two goals in their behavior: (1) personal motives that drive their behavior and (2) social functions (or goals) served by their behavior. He suggests that personal motives include power, income, prestige, comfort, or security. In contrast, social motives indicate a desire to serve public interests and a commitment to specific policies or programs. In terms of decision-making processes, bureaucrats also consider "cognitive mechanisms and social motivation mechanisms" as rewards in determining choice criteria [22]. Chang [22] in explaining the model has assumed one public service bureaucrat and their interaction with one client. However, in reality, street-level bureaucracy faces an indeterminate mass of clients. The first expansion of the model relates to situations where a public service bureaucrat meets more than one citizen. As previously mentioned, Street-Level Bureaucrats are essentially positioned between the government and citizens. These bureaucrats mediate the public sector and the community by placing public demands into
managable attributes. This placement process involves each bureaucrat's discretion in identifying facts, applying the law, and deciding what is wanted in specific situations [22].

In the real world, street-level bureaucrats need to process a heavy workload quickly and efficiently to assist their clients. Although street workers have many skills in their field, they often make extra efforts or even struggle to fully understand a situation and grasp what the community wants from them. Additionally, additional information is often needed for practitioners to interpret unclear laws and guide the application of discretionary behavior. Such conditions are embedded in various types of front-line bureaucracy behavior [22]. This study reexamines two classic texts on the study of public bureaucracy - street-level bureaucrats by Lipsky [4] Individual Dilemmas in Public Service and Inside Bureaucracy by Downs [23]. By focusing on the relationship between service providers and recipients, this model offers insights into the various behaviors of front-line bureaucrats in their interactions with the community. We aim to explain how street workers are motivated to move towards the community and to what extent they are involved in addressing citizen requests. We also explore various extensions taken from theories such as human processing, bounded rationality, and social optimality. By providing such considerations to front-line civil servants, our model contributes to identifying the motivations of street bureaucrats and deepens the understanding of their behavior in the eyes of the public [22].

3.1 Systematic literature review – GAP analysis

The author conducted further analysis using the Vosviewer application. Vosviewer is software that can be used to visualize published data. This software is beneficial for researchers, librarians, and public database publication administrators to analyze publication data and collaborative networks. Here are the results of the data analysis using the Vosviewer application.

![Overlay visualization research topic](image)

**Fig. 2.** Overlay visualization research topic.

Figure 2 It can be observed that there are 4 research clusters related to the Street-Level Bureaucrats model, indicating that the further a term is from a cluster, the less frequently research on that term is conducted. This implies a higher level of research novelty. In Fig. 2, it is evident that there are four distinct research clusters pertaining to the Street-Level Bureaucrats model. This observation suggests that the farther a term is from a particular cluster, the less frequent research has been conducted on that term. This phenomenon is
indicative of a higher level of research novelty associated with terms that are distanced from existing research clusters. The use of VosViewer as an analytical platform facilitates the identification of these research clusters and their associated levels of novelty, contributing to a deeper understanding of research trends and the areas that warrant further investigation.

Fig. 3. Overlay visualization research novelty.

Figure 3. Above is an overlay visualization processed using the VosViewer application. There are five colors representing the levels of research novelty. The author selected research from 2013 to 2023. It can be observed that the research theme of the Street-Level Bureaucrats model has been studied only 25 times. Therefore, based on this analysis, the author is motivated to conduct research on this topic. In Fig. 3, an overlay visualization is presented, which has been processed using the VosViewer application. The visualization employs five distinct colors to depict the degree of research novelty. The author's research selection spans from 2013 to 2023. It is discernible from this visualization that the theme of research related to the Street-Level Bureaucrats model has been the subject of investigation on only 25 occasions. Consequently, this analysis has piqued the author's interest in pursuing research within this specific domain. The utilization of VosViewer as the analytical platform allows for the visual representation of research trends and the identification of research gaps, which in this case, has motivated the author to delve into the Street-Level Bureaucrats model, an area that has received relatively limited scholarly attention.

3.2 Case study of the street-level bureaucrats model in the implementation of the people’s palm oil rejuvenation program in Indragiri Hilir, Riau Province, Indonesia

Minister of Agriculture Regulation No. 07 of 2019 on Human Resource Development, Research, and Development, Rejuvenation, as well as Facilities and Infrastructure for Oil Palm Plantations, as last amended by Minister of Agriculture Regulation No. 15 of 2020 on the Second Amendment to Minister of Agriculture Regulation No. 07 of 2019 on Human Resource Development, Research, and Development, Rejuvenation, as well as Facilities and Infrastructure for Oil Palm Plantations, still contains certain shortcomings and therefore needs to be revised. This can be observed in the Table 1.
Table 1. Transformation of minister of agriculture regulations concerning PSR.

<table>
<thead>
<tr>
<th>Policy Transformation</th>
<th>No 07/2019</th>
<th>No 36/2019</th>
<th>No 15/2020</th>
<th>No. 03/2022</th>
<th>No. 19/2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Aims to implement the provisions of Article 16A of Presidential Regulation Number 66 of 2018 concerning the Second Amendment to Presidential Regulation Number 61 of 2015 concerning the Collection and Use of Oil Palm Plantation Funds</td>
<td>Aims to increase the efficiency of proposing oil palm rejuvenation</td>
<td>Aims to increase the effectiveness of oil palm rejuvenation</td>
<td>Aiming to ensure sustainable development of oil palm plantations, arrangements have been made regarding human resource development, research and development, rejuvenation, as well as facilities and infrastructure for oil palm plantations funded by funds collected from oil palm plantations.</td>
<td>Improving the administrative governance of smallholder palm oil rejuvenation</td>
</tr>
</tbody>
</table>

Based on the Table 1, the presence of Minister of Agriculture Regulation No. 3 of 2022 is expected to prevent land overlap. Rejuvenation of oil palm is granted to farmers under certain conditions, one of which is being part of a farmer institution and having legal land tenure. This consideration arises from the lengthy growth cycle of oil palm trees, which is approximately 25 years, necessitating legal certainty regarding the existence of the plantation to be rejuvenated. However, based on observational data, several existing conditions in the implementation of the Oil Palm Rejuvenation Program (PSR) under the implementation of Minister of Agriculture Regulation No. 3 of 2022 have been identified, including:

1. Assurance of business, especially in terms of land status. The PSR program must not be located within forest areas, areas under Business Use Rights (HGU), and peatland protection areas due to considerations of forestry, environmental, and land/agrarian regulations.
2. Land legality, farmers, stakeholder support, and farmer institutions. The issue with plantation legality includes the absence of land certificates (SHM), land indicating forested areas, indications of overlap with HGU, and rights to other land.
3. Productive plantations and high fresh fruit bunch (FFB) prices reduce farmers' interest; many farmers who should have already replanted are now postponing it.
4. Certified seeds must be used in PSR, issued by the seed certification agency under the provincial government department. Without certification, seeds cannot be used for PSR.
5. Loss of income for farmers during the rejuvenation period; farmers still have outstanding loans from banks, leading to difficulties in accessing further funding.
6. Concrete efforts by plantation companies to participate in PSR are lacking, and the role of oil palm farmer associations in encouraging their members to propose PSR needs
strong support from local authorities (village heads, sub-district heads, district heads, governors).

7. Farmers being summoned by law enforcement officials, causing them to be reluctant to participate in PSR.

8. Farmers do not have institutional legality yet; the institutional relationship of farmers with members, as well as the capacity and capability of farmer institution management, is still insufficient.

9. Farmers who fear income loss are provided with intercropping seed assistance using the Ministry of Agriculture and Rural Development's budget (APBN Kementan), and the government has also requested that companies involved in plasma support encourage farmers to participate in PSR.

Therefore, it is essential to examine the implementation process of this policy through a bottom-up or street-level approach, as shown in the following Table 2.

Table 2. Street-level bureaucrat analysis of oil palm replanting implementation program.

<table>
<thead>
<tr>
<th>No</th>
<th>Actor</th>
<th>Role</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Harapan Jaya Village Government</td>
<td>Providing PSR assistance</td>
<td>Receive assistance through outreach from the Harapan Jaya Village government</td>
</tr>
<tr>
<td>2</td>
<td>Indonesian Palm Oil Growers Association (APKASINDO)</td>
<td>Providing training, outreach and assistance for independent farmers</td>
<td>Following the mentoring aspect</td>
</tr>
<tr>
<td>3</td>
<td>Farmers Community (Berkah Tani Sejahtera), Harapan Jaya Village, Tempuling subdistrict, Indragiri Hilir, Riau Province</td>
<td>Running the PSR program through a door-to-door system to the surrounding community by the Harapan Jaya village government.</td>
<td>Receive benefits and join APKASINDO in collaboration with the Village government through village unit cooperatives.</td>
</tr>
</tbody>
</table>

Table 2 provides an analysis of the roles and reactions of various actors involved in the implementation of the Oil Palm Replanting Program (PSR). This analysis sheds light on how different actors interact and respond within the context of the program.

1. Harapan Jaya Village Government: The role of the Harapan Jaya Village Government is to provide PSR assistance. Their reaction involves actively reaching out to the community and offering assistance. This proactive approach ensures that the benefits of the program are received by the local population, indicating a positive engagement in program implementation.

2. Indonesian Palm Oil Growers Association (APKASINDO): APKASINDO plays a crucial role in providing training, outreach, and assistance to independent farmers. Their reaction is aligned with the mentoring aspect of the program. This suggests a cooperative effort in guiding and supporting farmers, which is essential for the success of the PSR program.

3. Farmers Community (Berkah Tani Sejahtera), Harapan Jaya Village, Tempuling Subdistrict, Indragiri Hilir, Riau Province: This community is responsible for running the PSR program through a door-to-door system in the surrounding areas, facilitated by the Harapan Jaya Village Government. Their reaction involves receiving benefits from the program and collaborating with APKASINDO through village unit cooperatives. This collaborative approach demonstrates a positive response to the PSR program's objectives.

In summary, the table illustrates a coordinated effort among these key actors in implementing the PSR program. Their roles and reactions indicate a commitment to delivering benefits and support to independent farmers, which is essential for the program's success in the oil palm sector.
In conclusion, Street-Level Bureaucrats play an essential role in bridging the gap between government policies and local communities, ensuring that the PSR program contributes to the sustainable development of the oil palm industry in Indonesia. Their actions and reactions reflect a commitment to achieving program goals and facilitating cooperation among key stakeholders the discussion presented above centers on the concept of Street-Level Bureaucrats and its relevance within the context of the Oil Palm Replanting Program (PSR) in Indonesia. Street-level bureaucrats, represented by various actors such as government authorities, associations, and local communities, play a pivotal role in the successful implementation of the PSR program. Firstly, the concept of Street-Level Bureaucrats, as introduced by Lipsky, emphasizes the significance of front-line officials who directly engage with the public in delivering public services. These bureaucrats face the challenge of balancing responsiveness to the needs of their clients while ensuring the effective implementation of policies. Within the PSR program, it becomes evident that actors like the Harapan Jaya Village Government, the Indonesian Palm Oil Growers Association (APKASINDO), and the Farmers Community in Harapan Jaya Village, Tempuling Subdistrict, are actively involved in different capacities. The Village Government proactively provides assistance to the community, APKASINDO extends training and mentoring to independent farmers, and the Farmers Community conducts door-to-door outreach to implement the program. Importantly, these actors demonstrate positive reactions and a collaborative spirit in their engagement with the PSR program. They work together to ensure that benefits reach the local population and that farmers receive the necessary support and training for sustainable oil palm cultivation. The broader context of oil palm production in Indonesia highlights the significance of programs like PSR, given that a substantial portion of global palm oil production originates from the country. However, the implementation of such programs faces various complexities, including limited resources, increasing service demands, unclear program objectives, and varying levels of community understanding and acceptance. Understanding the dynamics and challenges faced by Street-Level Bureaucrats is crucial for achieving the program's objectives and promoting sustainable development in the oil palm sector. As such, the collaborative efforts and proactive engagement demonstrated by these actors, as observed in Table 2, signify a positive outlook for the PSR program.

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