

THE ROLE OF GAPOKTAN TANI MANDIRI IN THE IMPLEMENTATION OF THE OIL PALM SMALLHOLDER REPLANTING PROGRAM IN LAUT TADOR VILLAGE

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Received: 02/06/2026 | Revised : 11/06/2026 | Accepted: 23/06/2026 | Published :06/07/2026

Abstract

The Oil Palm Smallholder Replanting Program (PSR) is a strategic government policy to improve the productivity of smallholder oil palm plantations by replacing aging plants with superior certified seedlings. The implementation of this program requires strong farmer institutional support, particularly through the Farmers Group Association (Gapoktan). This study aims to analyze the role of Gapoktan Tani Mandiri in implementing the PSR Program in Laut Tador Village, Batu Bara Regency. A descriptive qualitative approach was used with 17 informants: 3 Gapoktan administrators selected through purposive sampling and 14 PSR participant farmers through snowball sampling. Data were collected via observation, in-depth interviews, and documentation, and analyzed using the Miles and Huberman interactive model. Results show that Gapoktan Tani Mandiri actively performed a substantial role four aspects: (1) program socialization conducted in 3–4 official meetings using a tiered communication mechanism; (2) administrative assistance that successfully validated 82 farmers with 123.13 hectares of land through document management and BPDPKS submission; (3) implementation coordination involving Plantation Office, PT. Paya Pinang Group, and Sucofindo; and (4) participatory evaluation through periodic group deliberations and monthly field visits. Key challenges include farmer hesitancy, repeated SMART-PSR platform changes causing 5–6 revision cycles, and slow processing by Provincial Sucofindo.

Keywords: Farmer Institution; Gapoktan; Oil Palm Replanting; PSR; Smallholder Plantation

INTRODUCTION

Oil palm is a strategic national plantation commodity that significantly contributes to Indonesia's economy, both through exports and employment creation. According to the Central Bureau of Statistics (BPS, 2024), Indonesia's total oil palm plantation area exceeds 16 million hectares, with approximately 41% managed by smallholder farmers. Despite this extensive coverage, smallholder plantation productivity remains considerably lower than large-scale plantations, primarily due to the dominance of aging trees over 25 years old and the use of uncertified seedlings (Siahaan et al., 2020). This condition directly impacts farmers' production levels and income, posing significant challenges to the sustainability of smallholder oil palm businesses.

In response to this structural problem, the Indonesian government launched the Oil Palm Smallholder Replanting Program (PSR), which aims to improve plantation productivity by replacing unproductive old plants with superior certified seedlings. The program's success depends heavily on the synergy between government, farmers, and supporting institutions at the local level (Hartono, 2024). In practice, PSR implementation is often carried out through Gabungan Kelompok Tani (Gapoktan), a collective farmer institution that integrates multiple farmer groups into one coordinating structure. Gapoktan functions as a collective decision-making body, administrative manager, and primary liaison between farmers and government programs (Harman & Mayarni, 2024).

In Laut Tador Village, Laut Tador District, Batu Bara Regency, PSR was implemented through Gapoktan Tani Mandiri. PSR Phase I (2020) covered 61.05 hectares and has successfully entered the productive phase (TM), while PSR Phase II (2025) covered 62.08 hectares with a total validated area of 123.13 hectares involving 82 farmers. While these quantitative achievements are substantial, the qualitative role of Gapoktan across the four main program dimensions socialization, administrative assistance, implementation coordination, and evaluation has not been empirically analyzed in depth.

This study aims to analyze how Gapoktan Tani Mandiri executes its role in PSR implementation and contributes to strengthening the institutional capacity of smallholder oil palm farmers at the village level.

LITERATURE REVIEW

Oil Palm Smallholder Replanting Program (PSR)

The PSR Program is one of the Indonesian government's key policies designed to improve the productivity, quality, and welfare of smallholder oil palm farmers through replanting aging plants with superior seedlings and better cultivation practices (Hartono, 2024). The program not only encompasses technical aspects of replanting but also includes financial management, mentoring, and institutional coordination mechanisms that must be executed by local actors such as Gapoktan, farmer groups, and regional government agencies (Rahmadini & Mayarni, 2024). The urgency of PSR stems from the fact that the majority of smallholder oil palm gardens have been producing below their optimal potential, and most farmers lack sufficient capital to independently replant their gardens (Siahaan et al., 2020).

Gapoktan as Farmer Institution

Farmer institutions are socioeconomic organizations formed to enhance the collective capacity of farmers in accessing agricultural development programs. Gapoktan, as a coordinating federation of farmer groups, functions as a platform for collective decision-making, administration, and strengthening bargaining positions when accessing government assistance (Apriadi et al., 2023). Research by Maharani & Laksmono, (2021) confirms that Gapoktan plays a critical role in socializing programs, bridging information between government and farmers, and improving farmers' understanding of PSR implementation.

Studies show that strong institutional involvement enhances coordination quality, mentoring effectiveness, and overall PSR implementation success. Pramono et al., (2025) emphasize that the quality of farmer institutional management significantly influences PSR effectiveness, particularly in reducing bureaucratic barriers and building farmer trust during the waiting period before trees become productive. Hidayat et al., (2023) further establish that strong institutions positively influence the success of government-based agricultural programs by increasing member participation and strengthening coordination among program actors.

Challenges in PSR Implementation

Despite its potential, PSR implementation faces several structural challenges. These include incomplete land documentation, low administrative literacy among farmers, and the complexity of multi-tiered administrative procedures (Apriadi et al., 2023). The introduction of digital platforms such as SMART-PSR as administrative tools has added new layers of complexity, particularly for farmer institutions with limited digital literacy. Additionally, slow response times from verification bodies like Sucofindo at the provincial level create delays in fund disbursement that directly impact farmers' ability to maintain their replanted gardens during the TBM phase.

METHOD

This study was conducted in Laut Tador Village, Laut Tador District, Batu Bara Regency, North Sumatra Province, from October 2025 to June 2026. The research object was Gapoktan Tani Mandiri, selected purposively as the institution directly responsible for PSR implementation in the village. A descriptive qualitative approach was employed to gain an in-depth understanding of Gapoktan's role based on the experiences of informants in their natural setting, consistent with Sugiyono, (2022) view that qualitative research is suited for studying phenomena in their natural context. Two informant selection techniques were used: purposive sampling for 3 Gapoktan administrators (key informants) based on direct involvement in PSR planning and implementation, and snowball sampling for 14 PSR farmer participants (main informants) from a population of 82 PSR Phase I and II members covering 123.13 hectares.

Data collection was conducted through three techniques: (1) direct observation of Gapoktan activities and PSR land conditions; (2) in-depth interviews using an open-ended guide structured around four Gapoktan role indicators; and (3) documentation review including Gapoktan internal records, PSR implementation reports, and land verification data. Data analysis followed the Miles and Huberman interactive model (Muhajirin et al., 2024), consisting of three stages: (1) data reduction focusing and simplifying data around the four PSR role aspects; (2) data display organizing data into systematic narrative descriptions supplemented with tables; and (3) conclusion drawing interpreting patterns and meanings to answer the research questions.

RESULTS AND DISCUSSION

Informant Characteristics

The 17 research informants comprised 3 Gapoktan administrators (key informants) and 14 PSR farmer participants (main informants). The characteristics of the farmer informants are presented in Tables 1 through 3.

Table 1. Informant Characteristics by Age Group

Age Group	Number (persons)	Percentage (%)	PSR Phase
31–40 Years	2	14.29	I & II
41–50 Years	4	28.57	I & II
51–60 Years	6	42.86	I
>60 Years	2	14.29	I
Total	14	100.00	

Source: Primary Data (2026)

The majority of informants (42.86%) were in the 51–60 age group, indicating that mid-productive age farmers tend to participate more actively in replanting programs due to their rational long-term economic consideration (Hasbullah et al., 2025). The lowest participation was among farmers under 40 years old, primarily due to limited land ownership as land is generally still managed by their parents.

Table 2. Informant Characteristics by Gender

Gender	Number (persons)	Percentage (%)	PSR Phase
Male	11	78.57	I & II
Female	3	21.43	I & II
Total	14	100.00	

Source: Primary Data (2026)

Male dominance (78.57%) reflects traditional land ownership patterns in smallholder oil palm plantations, consistent with Apriadi et al. (2023), who found that PSR participants are predominantly male as household heads and primary decision-makers in land management.

Table 3. Informant Characteristics by Education Level

Education Level	Number (persons)	Percentage (%)	Note
Elementary School	5	35.71	Second largest
Junior High School	7	50.00	Dominant
Senior High School	2	14.29	Lowest
Total	14	100.00	

Source: Primary Data (2026)

Junior high school graduates dominated the informant group (50%), indicating that most PSR farmers have low-to-middle formal education backgrounds. This condition strengthens the urgency of Gapoktan's administrative assistance role, as Pramono et al. (2025) found that farmers with lower education are more dependent on collective institutions to access government programs.

Gapoktan's Role in Program Socialization

Gapoktan Tani Mandiri served as the primary socialization actor for PSR Program information among 82 farmer members. Socialization was conducted in collaboration with the Batu Bara District Plantation Office and Apkasindo, commencing two years before PSR Phase I in 2020 and repeated ahead of Phase II in 2025. Information

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was disseminated through a tiered mechanism: from Gapoktan to group leaders, then to all members, as explained by the Gapoktan Chairman:

"Information received from the Plantation Office and Apkasindo was first consolidated in an internal management meeting. It was then conveyed to the heads of each farmer group to be further disseminated to all members." (IN 1/Gapoktan Chairman, interview 28 February 2026)

Socialization was conducted in 3–4 official meetings plus informal discussions. Materials covered program objectives, administrative requirements, the Rp30 million/hectare grant mechanism, technical replanting stages using certified PPKS 540 seedlings, and intercropping recommendations. Gapoktan specifically communicated that paddy (padi gogo) and maize are recommended intercrops due to their 4-month harvest cycle and minimal interference with main crops, while cassava is strictly prohibited because its root system competes with and disturbs young oil palm development.

Intensive socialization was necessary because many farmers initially hesitated due to concerns about losing income during the TBM period after productive palms were felled. The Gapoktan Chairman noted: "Many farmers were initially reluctant to join because their palms were still producing, although yields had already declined. They were concerned about having no income for several years after the trees were felled. Therefore, the Gapoktan administrators had to provide repeated explanations to help farmers understand that this program is designed to improve their long-term welfare." This finding aligns with Maharani & Laksmono, (2021), who confirmed that Gapoktan's socialization role is critical in increasing farmers' understanding and confidence to participate in PSR, as well as Sari & Prihatin, (2023) who emphasize that participatory two-way communication in farmer institutions effectively increases member participation.

Gapoktan's Role in Administrative Assistance

Administrative assistance represented the most intensive role performed by Gapoktan Tani Mandiri, given the limited administrative literacy of most farmer members. All three Gapoktan administrators (Chairman, Secretary, and Treasurer) were involved with complementary task divisions. The assistance covered document collection (identity cards, family certificates, land ownership documents), document completeness verification, field verification through direct land visits, Candidate Participants and Candidate Land (CPCL) coordinate collection, data input, file uploading to the Plantation Office and BDPDKS at the national level, and guidance in operating the SMART-PSR digital platform.

"Before submitting any files to the relevant agencies, Gapoktan conducted a thorough review at the group level. Documents such as identity cards, family certificates, land ownership letters, and other supporting files were checked one by one to ensure that nothing was missing or inconsistent with program requirements." (IN 1/Gapoktan Chairman, interview 28 February 2026)

Through this intensive assistance, 82 farmers with a total of 123.13 hectares of land were successfully validated in the program. Farmers themselves acknowledged the importance of this assistance: "The Gapoktan administrators helped check the completeness of documents before submission. If anything was missing, farmers were immediately informed to complete it. This was very helpful because farmers acknowledged their limited understanding of administrative procedures, making the presence of Gapoktan administrators essential throughout the application process." (IN 1/PSR Farmer, interview 27 February 2026)

The primary challenge was the repeated change of the SMART-PSR platform interface and mechanisms, causing 5–6 revision cycles for Phase II disbursement applications. As the Chairman explained: "Because of the complexity of these application models, last night the application was changed again. So from the old to the new application there are always changes. So for submitting disbursements it always changes... For PSR Phase II, if I'm not mistaken, we've already revised about five or six times." This structural challenge is beyond Gapoktan's control but significantly delays fund realization. This finding is consistent with Apriadi et al., (2023), who found that the quality of institutional assistance directly influences the ease of farmers' access to PSR programs.

Gapoktan's Role in Implementation Coordination

Gapoktan Tani Mandiri functioned as the central coordination hub involving multiple parties. Internally, coordination was conducted with 82 PSR participant farmers. Externally, Gapoktan coordinated with the Batu Bara District Plantation Office, PT. Paya Pinang Group (technical assistance partner), Sucofindo (verification and supervision body), village government, replanting contractors, certified seedling suppliers, and Bank BRI (fund distribution manager).

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"In program implementation, Gapoktan coordinated with the District Plantation Office for technical and administrative matters. For plantation maintenance assistance, Gapoktan partnered with PT. Paya Pinang Group, which remains active to this day in accompanying farmers and purchasing FFB from both PSR and non-PSR plots." (IN 1/Gapoktan Chairman, interview 28 February 2026)

Coordination covered all technical replanting stages: felling of old palms, land clearing, preparation, distribution of certified PPKS 540 seedlings, replanting, and crop maintenance during the TBM period. Coordination with PT. Paya Pinang Group was conducted routinely every month through field visits to PSR Phase I and II plots on a rotating basis. A significant outcome of this coordination was the price differential for PSR FFB (Fresh Fruit Bunch) at Rp3,100/kg compared to Rp2,900/kg for non-PSR, reflecting quality recognition for cultivation that meets program standards.

Challenges included differences in land readiness among farmers disrupting unified scheduling, and slow response from Provincial Sucofindo in processing disbursement applications: "We submit on the 1st and it gets checked at the end of the month. Because there are so many submissions, our application gets reviewed at the 25th or 28th... then we revise and resubmit, and by then it's already the next month." This finding supports Pramono et al., (2025) who established that farmer institutions play a crucial role in connecting farmers with resources and technical support throughout PSR implementation.

Gapoktan's Role in Program Evaluation

Evaluation was conducted through two main mechanisms: periodic group deliberations involving all farmer participants, and routine monthly field visits by PT. Paya Pinang Group as the technical assistance partner (opteker) to all PSR Phase I and II plots on a rotating basis.

"Evaluation was conducted through group meetings involving all members. In these forums, farmers were given the opportunity to directly convey the challenges they faced in their plots, such as crop maintenance problems, weed infestations, or poor plant growth conditions." (IN 2/Gapoktan Secretary, interview 27 February 2026)

Aspects evaluated included plant growth and condition, planting success, TBM period maintenance, weed condition, potential rhinoceros beetle (Orites) pest attacks, farmer compliance with technical recommendations, and the smoothness of administrative and fund disbursement processes. A critical evaluation finding concerned farmer compliance with intercropping recommendations. The Gapoktan Chairman emphasized: "For cassava, we have essentially banned it for PSR crops. But for others, especially those using maize or paddy as intercrops, that's excellent. Paddy, apart from not disturbing the main crop, only takes 4 months to harvest." This finding aligns with Apriadi et al. (2023), who emphasize that continuous evaluation and mentoring are essential for improving PSR implementation quality.

Table 4. Summary of Gapoktan Tani Mandiri's Role in PSR Implementation in Laut Tador Village

Role Aspect	Form of Role	Key Findings	Challenges
Socialization	Tiered 3–4 official meetings; program objectives, Rp30M/ha grant, PPKS 540 seedlings, intercrop recommendations	Two-way participatory communication; Gapoktan → Group Leaders → Members mechanism	Farmer hesitancy over income loss during TBM; varying comprehension levels
Administrative Assistance	Document collection, CPCL coordinate collection, BPDPKS submission, SMART-PSR platform guidance	82 farmers, 123.13 ha validated; Gapoktan administrators handled data input due to farmers' limited digital literacy	5–6 revision cycles due to repeated SMART-PSR system changes; incomplete land documents
Implementation Coordination	Internal (farmers) and external (Plantation Office, PT. Paya Pinang Group, Sucofindo, Bank BRI) coordination	PSR FFB price Rp3,100/kg > non-PSR Rp2,900/kg; monthly field visits by PT. Paya Pinang Group	Varying land readiness; slow Provincial Sucofindo response delays Phase II maintenance fund disbursement
Evaluation	Periodic group deliberations and monthly field visits by PT. Paya Pinang Group	PSR Phase I now productive (TM); minimal Orites pest attacks; intercrop compliance monitoring	No formal documented evaluation system; Phase II maintenance funds not yet disbursed

Source: Primary Data (2026)

CONCLUSION

Gapoktan Tani Mandiri has played a significant role in supporting PSR implementation in Laut Tador Village across four key dimensions. First, program socialization was conducted in a tiered and repeated manner (3–4 official meetings), covering program objectives, grant mechanisms, replanting stages, and intercropping recommendations (paddy/maize recommended; cassava prohibited). Second, intensive administrative assistance successfully validated 82 farmers with 123.13 hectares of land, with the primary challenge being 5–6 disbursement revision cycles caused by repeated SMART-PSR system changes. Third, implementation coordination involving multiple internal and external parties achieved a tangible outcome in the form of a higher PSR FFB price (Rp3,100/kg) compared to non-PSR (Rp2,900/kg). Fourth, participatory evaluation through group deliberations and monthly field visits confirmed PSR Phase I success, with productive trees and minimal Orites pest incidence.

Key structural recommendations include: BPDPKS should stabilize the SMART-PSR platform and proactively socialize system changes before implementation; Provincial Sucofindo should improve processing response times to avoid multi-month revision cycles; the Plantation Office should provide digital literacy assistance for Gapoktan administrators; and Gapoktan should develop a formally documented evaluation system to guide PSR Phase III implementation. Future research should examine the economic impact of PSR on farmer income after Phase I reaches full productive capacity, using comparative approaches across multiple Gapoktan to provide more comprehensive insights into PSR implementation nationwide.

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