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Utilization of Government Livestock Grant Funds Among Goat Farmers

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Abstract

The livestock grant program initiated by the Kediri Regency Government aimed to improve livestock numbers and productivity. However, since the funds were first distributed in 2022, the goat population in Puncu Sub-district has shown fluctuating trends, while Kepung Sub-district has experienced a consistent increase. This study seeks to investigate the utilization of grant funds by the farmer groups using case study with explorative approach. Most groups utilized the funds primarily for goat procurement, with a focus on breeding activities, employing farming practices that ranged from traditional to semi-intensive systems. Jawarandu and Peranakan Etawa (PE) were the most preferred goat breeds among the farmer groups. The farming approaches varied across groups, including collective, semi-collective, and individual management, reflecting differences in available resources, organizational maturity, and group objectives. Despite these variations, the majority of groups followed technical guidelines and used the grant funds as initial capital to start or improve their goat farming activities. Key factors supporting effective fund utilization included access to local feed resources, flexible fund usage guidelines, veterinary support, strong member solidarity, and accessible goat marketing channels. On the other hand, challenges included seasonal feed shortages, limited health and reproductive management practices, and difficulties in monitoring goats when housed individually. These findings provide valuable insights for policymakers in designing more responsive and sustainable livestock grant programs and may serve as a basis for future research on the programs impacts.

Keywords: Community Development, Exploratory Study, Goat Farming, Grants Utilization, Public Policy

Introduction

Goat are livestock animals that are closely associated with rural communities. As a small ruminants, goat require less capital and space compared to cattle. They are valued for their adaptability, low feed input requirements, disease resistance, and ability to thrive in adverse conditions such as extreme weather, mountainous terrain, or even hot climate (Darcan, 2023; Monteiro et al., 2018; Torres-Hernández et al., 2022). Goats possess the reproductive capacity to give birth three times within a two-year period, with an average litter size of one to two offspring per parturition (Susilawati et al., 2013). Therefore, goat farming not only provides food security and income, but also serve as a form of asset saving to the rural communities (Bettencourt et al., 2015). Along with sheep, goat are found across 38 Indonesian provinces and are predominantly farmed by smallholders using either enclosed or mixed grazing-confinement systems (Sujarwanta et al., 2024), including in Kediri Regency, East Java.

The provision of grant funds by the Kediri Regency Government to livestock communities is carried out through farmer groups, as an intervention aligned with the socio-economic conditions of communities in Kediri. According to BPS Kabupaten Kediri, (2024), in recent years, the agriculture, forestry & fisheries sector has been the largest contributor to the Gross Domestic Regional Product (GDRP). In 2019, it was valued at Rp9.412,84 billion or 22,86% of the total GDRP, and remained relatively stable with slight increase to Rp11.305,74 billion or 22,33% in 2024. BPS Kabupaten Kediri, (2023) also reported that there were 222,156 households engaged in agricultural activities in 2023, of which 64.5% were involved in livestock farming. Goats are one of the most widely farmed small livestock in Kediri, second only to beef cattle. The Regional Medium-Term Development Plan (RPJMD) of Kediri Regency for 2021–2026 also states that the development of other small livestock farming centers is distributed across all sub-district (Peraturan Daerah (Perda) Kabupaten Kediri Nomor 6 Tahun 2021 Tentang Rencana Pembangunan Jangka Menengah Daerah Kabupaten Kediri Tahun 2021 - 2026, 2021).

Based on livestock type, the majority of government livestock grants from the Kediri Regency in 2022 were allocated to goat farming, with 69 out of a total of 124 livestock farmer groups receiving grant funds. Among the 69 goat farmer groups, the Puncu and Kepung sub-districts ranked as the top two with the highest number of grant recipients, with 11 and 8 groups, respectively. The Kediri Regency Government allocated livestock grant funds as an effort to increase livestock population and production. However as shown in Table 1, the goat population in Puncu Sub-district tends to fluctuate, while in Kepung Sub-district it continues to increase. Since the funds were first distributed in 2022, there has been no study on how the grant funds given by the government have been utilized by the livestock farmer groups, particularly for goats farmer. This can provide a broader understanding and serve as a foundation for further research in analyzing the resulting impacts.

Therefore, this study aims to explore the utilization of livestock grant funds from the Kediri Regency Government by goat farmers in Puncu and Kepung, through the following research questions:

1. How are goat livestock grant funds being utilized by farmer groups?
2. What are the supporting and hindering factors in the utilization of goat livestock grants?

Table 1. Goat Population in Puncu and Kepung 2022 – 2024

Sub-district	Goat Population (heads)			2023 Growth[a]	2024 Growth[b]
	2022*	2023**	2024**		
Puncu	16.620	9.245	13.254	-44,4%	43,4%
Kepung	9.925	11.135	13.366	12,2%	20,0%

Source : Secondary data, (2025)

Notes : Goat population of 2022 are based on BPS Kabupaten Kediri, (2024), while 2023 and 2024 are based on BPS Kabupaten Kediri, (2025). [a] means population changes between 2022 and 2023, while [b] are between 2023 and 2024.

Literature Review

Kediri Regency Government Grant Funds

Generally, grants from the Kediri Regency Government are regulated by the Kediri Regent Regulation No. 76 of 2022 concerning Budgeting, Implementation and Administration, Reporting and Accountability, as well as Monitoring and Evaluation of Grant Expenditures and Social Assistance Expenditures. The source of these grants comes from the Regional Revenue and Expenditure Budget (APBD). The purpose of providing grants by the Kediri Regency Government is to support government functions, development, and community welfare, particularly by assisting in achieving the goals of government programs, activities, and sub-activities in line with regional interests.

Livestock grants are provided to farmer groups in the form of funds that are allocated based on submitted proposals. One of the main eligibility criteria is that the farmer group must have legal entity status recognized by the Ministry of Law and Human Rights. This initiative is part of a regional autonomy policy implemented by the Kediri Regency Government to support the development of the livestock sector. This policy was first introduced in 2022, as outlined in the Decree of the Head of the Food Security and Livestock Service (DKPP) of Kediri Regency, Number 188/0382/418.36/2022, concerning the Technical Guidelines for the Regional Legislative Council (DPRD) Kediri Regency's *Pokir* Budget Grants for Livestock Empowerment in the 2022 Fiscal Year. The implementation of the livestock grant policy is based on the collection of public aspirations, which are channeled through the main ideas (*pokok pikiran*, or *Pokir*) of the DPRD. These inputs also serve as the basis for determining the target locations and recipient groups, in alignment with the regional development priorities outlined in the Medium-Term Regional Development Plan (RPJMD). The Kediri Regency Food Security and Livestock Service (DKPP) allocates grant funds under an activity titled "Improving the Quality and Circulation of Livestock Seeds and Animal Feed Plants Within the Region of the Regency/City" as an effort to increase livestock population and production. This initiative also serves as an empowerment effort for livestock farmer communities and, more

broadly, forms part of the agricultural revitalization strategy to promote a people-centered economy in Kediri Regency.

Puncu and Kepung Sub-district

Puncu and Kepung are two sub-districts located in Kediri Regency, East Java, situated at the foothills of Mount Kelud. Each sub-district contains a nature reserve—Manggis Gadungan in Puncu and Besowo Gadungan in Kepung. According to BPS Kabupaten Kediri, (2023c), Puncu spans an area of 94.92 km², with elevations ranging from 40 to 469 meters above sea level, and comprises eight villages. Based on their proximity to forest areas, Satak is located within the forest, Puncu, Wonorejo, Manggis, and Sidomulyo are situated on the forest edge, while Asmorobangun, Watugede, and Gadungan are outside forest zones. The sub-district has a total population of 65,943, consisting of 33,552 males (50.88%) and 32,391 females (49.12%). Agriculture—including horticulture, plantation crops, and secondary crops—is the main source of livelihood. Land use in Puncu consists of 79.8% non-irrigated agricultural land, 5.7% irrigated farmland, and 14.4% non-agricultural areas.

According to BPS Kabupaten Kediri, (2023b), Kepung sub-district covers 90.11 km², with altitudes ranging from 177 to 490 meters above sea level. It consists of ten villages. Among these, Besowo, Kebonrejo, and Krenceng are located adjacent to forest areas, while Kepung, Kampungbaru, Damarwulan, Keling, , Siman, Brumbung, and Kencong are situated outside forest zones. Kepung has a total population of 87,584, with 44,640 males (50.97%) and 42,944 females (49.03%). Similar to Puncu, agriculture—particularly horticulture, rice, and secondary crops—is the dominant livelihood activity. Land use in Kepung consists of 46.2% non-irrigated agricultural land, 35.1% irrigated farmland, and 18.7% non-agricultural land.

Research Method

Research Design

This study employs a case study design with an exploratory approach, aimed at gaining an in-depth understanding of the utilization of livestock grant funds provided by the Kediri Regency Government to goat farmer groups in Puncu and Kepung Sub-district. Case study research described by Creswell & Poth, (2018) as a qualitative approach used to explore a real-life, bounded system over time through detailed data collection from multiple sources, with the aim of identifying key themes and providing an in-depth understanding of the case. In this study, the bounded systems are the goat farmer groups in the sub-districts of Puncu and Kepung that received government grants in 2022.

Data Collection

Data collection was carried out in March 2025 in the Puncu and Kepung sub-districts, Kediri Regency, East Java, Indonesia. Three methods were employed to gather data: in-depth interviews, observation, and literature study. Identification of farmer groups that received grants was done using official records from the DKPP. Following this, appointments were made with group leaders and relevant stakeholders for interviews and observations. Interviews

were conducted using a semi-structured interview guide to allow for both consistent data gathering and flexibility in exploring relevant emerging issues. Observations were recorded in field notes, while the literature study involved reviewing relevant documents, reports, and regulations to strengthen the analysis.

Participants and Sample

Participants in this study were purposively selected based on their roles in the livestock grant program in Kediri Regency, including both recipients and program administrators. The study focuses on 19 goat farmer groups in the Puncu and Kepung sub-districts that received livestock grants from the Kediri Regency Government in 2022. Given the explorative approach and time constraints during this study, we attempted to contact 12 of these groups and successfully conducted in-depth interviews with 11. In addition, two key informants from the DKPP and one Animal Husbandry Technical Officer were also interviewed to gain institutional perspectives on the implementation and monitoring of the grant program.

Data Analysis

The collected data were analyzed using a descriptive and inductive qualitative approach. According to Abdussamad, (2021), descriptive analysis involves interpreting and presenting the meaning of a phenomenon based on evidence gathered during the research. The inductive aspect refers to drawing conclusions from patterns and facts that emerge from the data, allowing findings to develop naturally in line with the research focus.

Result and Discussion

Overview of Goat Farmer Groups Receiving Grant Funds

This study aims to examine the utilization of livestock grant funds provided by the Kediri Regency Government to goat farmer groups in the sub-districts of Puncu and Kepung. A total of 19 goat farmer groups in these areas were reported as grant recipients in 2022. Given the scope and time constraints of this study, we attempted to contact 12 out of 19 groups (63,15%) and successfully conducted in-depth interviews with 11 of them, as presented in Table 2. One group could not be reached, as the group leader was could not be contacted and no village residents were aware of the group's existence or membership.

It is found that the majority were indeed goat farmer groups, however, two groups (18.2%) were identified as agricultural farmer group, which focusing on crop farming rather than livestock. These include *Perkumpulan Sinar Mulia Manggis* and *Perkumpulan Kelompok Tani Argomulyo Dampit*. Based on the technical guidelines, these groups were still eligible to receive grants, as the program was not limited to livestock farmer groups but also to agricultural farmer groups in general, as long as they met the established criteria. These criteria include having conducted group activities for at least one year; being formed based on shared needs and objectives; possessing an organizational structure consisting of a chairperson, secretary, and treasurer with a minimum of 10 members; being domiciled in Kediri Regency; holding legal status and being registered with the DKPP; currently or previously raising livestock;

having land available for building pens and access to forage; not having received a similar grant in the previous year; and submitting a grant proposal to the Regent of Kediri.

Table 2. Farmer Groups Receiving 2022 Grants in Puncu and Kepung

Farmer Groups Name	Location	Number of member	Established Year	Grant Funds Received (IDR)
Perkumpulan Sinar Mulia Manggis	Puncu	50	1987	20.000.000
Kelompok Ternak Anugerah Bersatu Puncu	Puncu	15	2021	50.000.000
Kelompok Ternak Karanganyar Bangkit Watugede	Puncu	n/a	n/a	n/a
Perkumpulan Kelompok Tani Argomulyo Dampit	Puncu	40	1970s	50.000.000
Kelompok Ternak Nusantara Jaya Parangagung Puncu	Puncu	11	2021	50.000.000
Kelompok Ternak Podo Joyo Abadi Siman Kepung Berdaya	Kepung	13	2021	50.000.000
Kelompok Ternak Maju Mapan Berkah Abadi Sejahtera Besowo	Kepung	12	2021	50.000.000
Kelompok Ternak Tiga Lima Mandiri Kebonrejo	Kepung	18	2017	50.000.000
Kelompok Ternak Rejo Makmur Abadi Kebonrejo	Kepung	10	2021	50.000.000
Kelompok Ternak Rizki Baru Kampungbaru	Kepung	13	2021	50.000.000
Perkumpulan Kelompok Ternak Estu Karya Jaya	Kepung	35	2014	40.000.000
Perkumpulan Kelompok Tani Dan Ternak Tsumha Widjaya	Kepung	14	2017	20.000.000

Source : Primary data(2025)
Notes : n/a means not available

Based on Table 2, the members in each livestock groups varies considerably, ranging from 10 to 50. This aligns with the minimum requirement for grant eligibility, which stipulates that a livestock group must consist of at least 10 members. The majority of the groups had between 10 and 18 members, most of which were established in similar timeframes, six in 2021 and two in 2017. One group, formed in 2014, had 35 members. Meanwhile, the two groups with the highest number of members are agricultural groups, established in 1987 and 1970s, with 40 and 50 members respectively. The number of members in a group appears to correspond with the year of establishment. Groups that were formed earlier typically engaged in more activities, such as regular meetings, training, extension services, and agricultural production, resulting in stronger social networks and more mature organizational capacities. Raya, (2016) reveals that member participation in farmer groups is influenced by the structure of social networks between members and group leaders, which can be fostered through regular meetings and collaborative activities. These interactions serve as important channels of communication and contribute to strengthening the social ties within the group.

Although *Perkumpulan Kelompok Ternak Estu Karya Jaya* was established in 2014, or relatively recent, currently it has 35 members, which comparable to two agricultural groups that were established much earlier than most other groups. According to the group leader, the membership initially consisted of only 15 individuals. The group's livestock activities are not solely profit-oriented but are instead socially driven, serving as a positive and productive activity for local youth. As a result, the number of members has gradually increased over time. This reflects one of the fundamental roles of a farmer group, which is to function as a platform for agricultural production units that foster cooperation and mutual support among members (Uddin et al., 2022).

More than half (54.5%) livestock grant recipient groups in Puncu and Kepung sub-districts were newly established in 2021, with membership close to the minimum requirement for grant eligibility. This suggests that some groups were formed pragmatically or program-driven, primarily to meet administrative requirements rather than as a result of established community dynamics. This is supported by statements from several group leaders who indicated that the groups were formed after receiving information about the grant program from regional legislative members. Nevertheless, this aligns with the technical guidelines, which state that livestock grant activities are based on community aspiration channels (*Pokir*) from the Regional Legislative Council (DPRD) of Kediri Regency, serving as the basis for determining target locations and recipient groups. Several group leaders acknowledged that the grant served as a "kick-start" or initial capital for goat farming, enabling both experienced and new farmers to begin their livestock production under group facilitation.

Based on the findings, out of eleven groups receiving grants, eight groups (72.7%) received IDR 50.000.000, two groups (18.2%) received IDR 20.000.000, and one group (9.1%) received IDR 40.000.000. The amount of IDR 50.000.000 represents the maximum amount of grant funds for goat farming, as stipulated in the technical guidelines. The differences in grant amounts requested and received reflect the diverse capacities, operational scales, and preparedness levels of each group in managing livestock and financial resources. Groups that applied for less than the maximum amount likely considered limitations in human resources, facilities, or prior experience. In the context of community empowerment, this approach aligns with the bottom-up principle or participatory development approach, where decisions are shaped by the actual needs, conditions, and aspirations of the local community (Sardjo et al., 2017). Nevertheless, newly formed groups often still request the maximum amount, viewing it as initial capital to start their livestock production.

Utilization of Goat Livestock Grant Funds by Farmer Groups

The utilization of goat livestock grant funds by farmer groups is described based on fund realization, production purposes, and goat management systems, as presented in Table 3.

Table 3. Utilization of Livestock Grant Funds by Farmer Groups in Puncu and Kepung

Farmer Groups Name	Goats Purchased (heads)	Breed	Production Purpose	Farming System
Perkumpulan Sinar Mulia Manggis	10	Jawarandu	Breeding	Collective
Kelompok Ternak Anugerah Bersatu Puncu	30	Sheep, changed to Peranakan Etawa (PE)	Fattening, changed to breeding	Collective, changed to semi-collective
Perkumpulan Kelompok Tani Argomulyo Dampit	30	Jawarandu	Breeding	Collective
Kelompok Ternak Nusantara Jaya Parangagung Puncu	25	Jawarandu	Breeding	Individual
Kelompok Ternak Podo Joyo Abadi Siman Kepung Berdaya	30	Peranakan Etawa and Jawarandu	Breeding	Individual
Kelompok Ternak Maju Mapan Berkah Abadi Sejahtera Besowo	35	Jawarandu	Breeding	Individual
Kelompok Ternak Tiga Lima Mandiri Kebonrejo	35	Sheep, changed to Peranakan Etawa (PE)	Fattening, changed to breeding	Collective, changed to semi-collective
Kelompok Ternak Rejo Makmur Abadi Kebonrejo	20	Peranakan Etawa	Fattening	Individual
Kelompok Ternak Rizki Baru Kampungbaru	29	Jawa randu	Breeding	Semi-collective
Perkumpulan Kelompok Ternak Estu Karya Jaya	15	Senduro, Peranakan Etawa, Saneen	Breeding	Collective
Perkumpulan Kelompok Tani Dan Ternak Tsumha Widjaya	14	Jawarandu	Breeding	Semi-collective

Source : Primary data, (2025)

The technical guidelines of *pokir* grant funds for livestock empowerment 2022, stated that 90% of the grant funds must be allocated for the purchasing of livestock, while the remaining 10% used for supporting infrastructure and equipment supporting the livestock production. According to DKPP, this allocation guideline serves as a control mechanism to prevent potential misuse of funds, particularly those used for equipment procurement. For example, equipment may be declared damaged or even resold. Basically, the provision of grant funds is intended to increase livestock population and production through livestock procurement. Therefore, a larger proportion of the grant is designated for livestock purchases. This makes misuse more difficult, as recipient groups are also required to report livestock development to the DKPP every three months. These reports must include the number of animals born, sold, and deceased. Furthermore, any livestock deaths must be reported directly to the livestock technical officer at the sub-district level.

Based on the interviews, most of the groups utilized the grant funds exclusively for livestock procurement, either by purchasing directly from livestock markets or through intermediaries such as local traders or *blantik*. However, two groups also allocated a portion of the grant for other livestock production facilities. *Perkumpulan Kelompok Tani Argomulyo Dampit* used part of the grant to construct a goat shed, as the group was originally established as an agricultural farmer group, which focuses on crop farming and therefore did not have existing livestock housing. Similarly, *Perkumpulan Kelompok Ternak Estu Karya Jaya* used the grant to lease land designated for a communal goat shed and to cultivate *odot* or also known as dwarf elephant grass (*Pennisetum purpureum* cv. Mott) as an additional source of forage.

Tables 2 and 3 reveals that the number of goats purchased was generally proportional to the amount of grant funds received. The majority of farmer groups (72.7%) that received the maximum grant amount of IDR 50.000.000 purchased between 25 and 35 goats. One group that received IDR 40.000.000 purchased only 15 goats, as part of the funds was also allocated for land leasing. Meanwhile, two other groups that received the minimum grant amount of IDR 20.000.000 each purchased only 10 and 14 goats, respectively. According to interview, the majority of goats purchased were mature females of the Jawarandu breed, although some groups also purchased goats of the Peranakan Etawa (PE) and Senduro. Most of the female goats were either pregnant or had already given birth, thereby including offspring in the total count of goats purchased. The number of male goats purchased by each group was lower than the number of females, as most groups were oriented toward breeding. Out of the 11 groups, 2 groups purchased sheep with the initial goal of establishing breeding purpose. Differences in the number of goats purchased may be attributed to the breed, age, and sex of the animals, the independent purchasing processes, as well as the agreements and production purpose within each group. This variation underscores the importance of strategic planning and decision-making in utilizing grant funds effectively, as Van Tassell, (2024) stated that strategic planning is crucial for farmers to define long-term goals and determine the best course of action to achieve them.

Jawarandu is the most commonly raised breed, followed by PE. The Senduro and Saanen breeds are the least common, as they are raised by only one farmer group. Jawarandu and PE are favored by the farmer groups due to their adaptability and reproductive performance. As an indigenous breed, Jawarandu possesses strong adaptability to environmental changes and requires relatively low maintenance (Hariyono & Endrawati, 2022). Furthermore, Susilawati et al., (2013) note that the mothering ability of Jawarandu goats is superior to that of PE goats, with an average litter size of two kids per birth. These characteristics make Jawa Randu particularly attractive for smallholder farming systems, where resilience and reproductive efficiency are critical for herd development and economic sustainability.

As of the current grant utilization, 2 out of 11 groups (18.2%) have changed the breed they raise, as a result of shift in production purpose. Initially, these groups raised sheep for fattening with partnership arrangement, but later transitioned to independently breeding PE goats within the group. This transition was driven by several factors. First, challenges in partnership arrangements, particularly the provision of low-quality feed, resulted in suboptimal

fattening outcomes. Second, financial losses emerged due to fluctuating market prices for sheep and the high costs of purchased feed. Third, breeding PE goats was chosen as a more sustainable alternative, offering better economic returns and greater compatibility with available local resources. This change is considered have undergone a cognitive decision-making process, as described by Azizah, (2025), which includes problem identification, gathering relevant information, evaluating alternative actions, and implementing the chosen decision. Based on the interview findings, both groups have access to relevant information and sufficiently strong reasons in changing their production purpose and livestock management systems. Consequently, the shift occurred early in the grant utilization period, specifically within the first fattening cycle, approximately during the initial four months.

Figure 1. Jawarandu Goat Breeding

The production purpose of goat farming among grant recipients in Puncu and Kepung is primarily breeding, while only one group focuses on fattening PE goats. Based on the interviews, breeding refers to the objective of producing offspring that can later be sold according to farmers' needs, whereas fattening aims to produce goats ready for slaughter, typically marketed during the Eid al-Adha period as sacrificial animals, as practiced by *Kelompok Ternak Rejo Makmur Abadi Kebonrejo*. This group also engages in breeding, retaining offspring for further raising. Goats raised for fattening are typically managed intensively over a period of three to four months, during which they are fed high-nutrition diets to promote rapid weight gain (Pazla et al., 2023). However, most farmers lack access to such feed, as goat farming is generally practiced as a secondary livelihood alongside crop production. Consequently, they depend largely on locally available forage and agricultural by-products, such as wild grasses, maize stover, and groundnut residues. Budisatria et al., (2010) found that goat breeding, particularly for the purpose of supplying kids to the market, is a viable strategy in middle and upland zones, where forage availability is abundant. In these areas, the average number of kids weaned per doe per year was relatively high—2.5 and 2.7, respectively—despite longer kidding intervals of 278 and 273 days. Given that Puncu and Kepung are situated in the middle to upland regions of Mount Kelud, breeding systems are generally more suitable for most farmers in these areas.

Figure 2. Peranakan Etawa (PE) Goat Fattening

Based on the interview, we classified the goat farming systems into collective, semi-collective, and individual systems. Differences in farming systems are the result of agreements made within each group, based on their respective capabilities and available resources. Collective management refers to the centralized care of goats in a single location by the group. In the *Perkumpulan Sinar Mulia Manggis*, all goats are managed by a single individual, as the group originally functioned as an agricultural crop farmers association. In the *Perkumpulan Kelompok Tani Argomulyo Dampit*, goat rearing is handled by a livestock sub-unit, consisting of 11 members who are responsible for daily care. Meanwhile, in the *Perkumpulan Kelompok Ternak Estu Karya Jaya*, although the goats are kept collectively in one location, the daily care of each goat is the responsibility of the respective member, with the exception of cleaning, which is carried out by three designated members on a rotating daily schedule. Collective management allows easier animal husbandry practices, as well as monitoring, evaluation, and record-keeping.

Semi-collective refers to a system in which goat husbandry by the group is carried out separately across multiple locations. *Kelompok Ternak Anugerah Bersatu Puncu* manages livestock in three different locations, and *Kelompok Ternak Tiga Lima Mandiri Kebonrejo* operates in six locations. Each site is managed by one individual designated as a “caretaker,” who is not considered a regular member. Meanwhile, *Kelompok Ternak Rizki Baru Kampungbaru* and *Perkumpulan Kelompok Tani dan Ternak Tsumha Widjaya* maintains livestock at separate locations, each managed by several group members. Meanwhile, individual management refers to a member being fully responsible for goat husbandry, including housing, feeding, health management, and marketing, as practiced by the rest of the groups. Although responsibilities are individual, the group remains actively involved by facilitating the exchange of experiences, addressing challenges, and sharing solutions related to goat husbandry, such as sharing information on treatments for minor diseases. The group also actively involved in establishing agreements on profit-sharing from goat sales, supporting livestock management through direct supervision and regular meetings, and coordinating with veterinarians in cases of urgent health concerns. This supportive role of the group is consistently maintained across both semi-collective and individually managed systems.

Table 4. Characteristics of Goat Farming Systems in East Java

Characteristics	Traditional Farming	Semi-Intensive Farming	Intensive Farming
Farming size	Small holder	Small to medium	Medium to large population
Purpose	Subsistence	Begin to business-oriented	Economic and business-oriented
Housing or pen	Simple housing (enclosed to family house)	Permanent housing	Permanent housing with considered size and construction
Feed and feeding	Mostly free grazing	Mostly feeding in the stall	Intensive feeding with forages
Additional feed	Without any additional feed	Occasionally with additional feed	Calculated nutrition requirements
Reproduction and breeding management	No breeding and reproductive management	Simple breeding and reproduction management	Intensive breeding program and reproduction management, using elite genetics
Data availability	No data about farming	Part of data may be available	Data of farming is available
Marketing of products	No marketing program	Bring to market periodically	Programmed market

Source : Suyadi et al., (2020)

Based on the level of management input and resources utilization, Suyadi et al., (2020) classified goat farming system into three categories, as noted in Table 4. Goat farming management among the grant recipient groups in Puncu and Kepung can generally be categorized as traditional to semi-intensive farming systems, reflecting the use of conventional management strategies practices by the groups. The majority of groups purchased fewer than 30 goats with the grant funds, a number that also included the offspring. In line with the classification proposed by Sudrajat et al., (2024), herd ownership below 30 goats is considered small-scale farming. Within groups that applied an individual management system, each member typically received approximately two goats. Goat shed were predominantly located near the farmers' residences, except for groups that adopted collective or semi-collective farming systems where livestock was maintained at centralized sites.

Feeding management largely relied on a cut-and-carry system, in which forage and agricultural by-products were manually collected and delivered to the goats at feeding stalls. Only *Kelompok Ternak Rejo Makmur Abadi Kebonrejo* supplemented forage with formulated feed mixtures, consisting of tofu by-products, pollard, molasses, and salt, reflecting their specific focus on fattening activities to improve growth performance. Meanwhile, reproductive management was generally opportunistic, with mating occurring whenever signs of estrus were observed. Breeding males were either sourced internally from group members or borrowed from neighboring farmers within the same village. Systematic record-keeping practices, whether related to reproduction or feeding activities, were notably absent across most groups. Nevertheless, some groups maintained basic records of goat population development for reporting purposes to the DKPP of Kediri Regency. The decision to sell goats was primarily influenced by the immediate financial needs of the farmers, such as educational expenses,

religious festivities, or the requirement for agricultural capital, with sales typically conducted through middlemen or livestock traders (*blantik*), often at lower market prices. Consequently, the farming system tended to remain subsistence-oriented.

Supporting and Hindering Factors in Grant Utilization by Farmer Groups

Supporting Factors

Based on the findings, the supporting factors in the utilization of goat livestock grant funds by farmer groups are as follows.

1. Feed Resources.

   Feed is the most important input in livestock production, accounting for 65-75% of total production costs (Kırkpınar & Açıkgöz, 2018). Goat farmers in the Puncu and Kepung sub-districts mostly rely on natural forages and agricultural by-products. However, one farmer group in this study has access to tofu by-products, which are used as supplementary feed for goat fattening. Both sub-districts are located at the foothills of Mount Kelud, with several villages situated near the Manggis Gadungan and Besowo Gadungan Nature Reserves, which serve as sources of wild grasses and leafy forages. The communities in both sub-districts mainly rely on agriculture as their primary livelihood activity, thus providing access to agricultural by-products such as maize stover, peanut haulms (*rendeng kacang tanah*), rice straw (*jerami*), and dried water spinach (*kangkung kering*). Some groups also have dedicated forage plots planted with *rumput odot* (*Pennisetum purpureum* cv. Mott), *pakchong*, *river tamarind* (*Leucaena leucocephala*) and Indigofera, serving as additional sources of green fodder. Variety of feed resources is a key factor in sustainably increasing livestock productivity in developing countries (Makkar, 2014).

2. Utilization Flexibility.

   Based on the interviews, farmer groups exhibit a degree of flexibility in utilizing the grant funds, particularly in aspects such as variations in farming systems among groups, changes in production objectives, and the replacement of goats initially purchased when encountering operational challenges. Variations in goat husbandry practices, as presented in Table 3, are the result of collective agreements within each group, based on member consensus. Currently, two farmer groups have transitioned their production objectives: originally focused on sheep fattening, they transitioned to PE goat breeding due to issues with fattening partners and fluctuations in market prices. In addition, three farmer groups have replaced goats acquired through the grant with others, owing to reproductive issues such as abnormal estrus behavior or the need for multiple matings to achieve successful pregnancies. These reproductive challenges negatively impact farm productivity, as goats continue to require feed inputs without yielding offspring. According to the technical guidelines for the grant and the Kediri Regent Regulation No. 76 of 2022, no specific provisions regulate such adaptations, thereby allowing farmer groups considerable flexibility in managing grant fund utilization to respond to evolving conditions and challenges.

3. Veterinary Support

   In both Puncu and Kepung sub-districts, the farmer groups share a common Animal Husbandry Technical Officer, Drh. Lilik, who also serves as veterinarian. In addition to Drh. Lilik, several other veterinarians are available in these sub-districts. According to interviews, most farmer groups contact a veterinarian primarily for urgent health issues, such as bloating, miscarriages, feed poisoning, mumps, or skin diseases. Members have direct access to the veterinarian or can reach out to them through their respective farmer groups. This arrangement ensures easy access to veterinary services, which is considered beneficial in supporting the effective utilization of grant funds. As noted by Hartady & Widyastuti, (2018), veterinary support is essential for smallholder goat farmers in Indonesia, as their knowledge and adoption of appropriate health management practices remain limited.

4. Solidarity of Groups Member

   Most livestock groups engage in regular meetings, with seven groups meeting once a month, three groups every 3-4 months, and one group having irregular or conditional meetings. These group meetings serve as a platform for discussing challenges in goat husbandry, sharing experiences, and making decisions through mutual consultation. This highlights that the success of livestock management depends not only on technical aspects but also on the cohesion and communication within the group. As noted by Mujayin et al., (2024), community-based approaches, such as resource and knowledge sharing among farmers, are crucial in enhancing the adaptive capacity to improve livestock productivity. Additionally, some groups reported that most members had known each other before the group was established, which strengthens solidarity within the group. Furthermore, both social and economic motivations reinforce the ties among group members, contributing to a sense of shared purpose and mutual support. Overall, livestock groups perceive the grant as a stimulus, encouraging them to either start or continue their goat farming activity. This motivation is further supported by a profit-sharing system, which facilitates active participation and involvement of group members in collective activities.

5. Convenience of Selling Goats

   Farmers have the option to sell goats either to intermediaries (*blantik*) or directly at livestock markets, as demonstrated by *Perkumpulan Kelompok Tani Argomulyo Dampit*, which sells at the Pare livestock market. However, the majority of farmers prefer to sell their livestock to local intermediaries. This is considered more convenient, as farmers are generally not accustomed to selling their goat at livestock markets. Selling goats at these markets is also perceived as time-consuming and costly in terms of transportation. Although there is a price difference compared to the general market price, farmers can offer their goats to multiple intermediaries, allowing them to compare proposed purchase prices and select the highest one. More broadly, goat products produced by farmers in Kediri Regency can be absorbed both within the region and outside the Kediri area. The analysis of Location Quotient (LQ) from 2016 to 2020 conducted by Winahyu, (2022) shows values greater than 1. This indicates that the goat production in Kediri Regency is

sufficient to meet the demand within the regency, making it possible to market the products beyond the region.

Hindering Factors

Based on the findings, the hindering factors in the utilization of goat livestock grant funds by farmer groups are as follows.

1. Seasonal Feed Shortage

   Most of the farmers stated that forage collection becomes more difficult and time-consuming during the dry season, as many forages experience drought stress. As noted by Syam et al., (2019), the availability and quality of forage decline significantly during the dry season. Climate is one of the external factors affecting forage growth, alongside genetic and soil biological factors. However, this challenge is not considered a major constraint, as farmers can still collect forage from higher-altitude areas. Puncu and Kepung sub-districts are located at the foothills of Mount Kelud, which are adjacent to natural reserves that serve as alternative forage sources. In addition, 4 out of the 11 groups in this study have established forage plots planted with Pakchong, Odot, Lamtoro, Kaliandra, and Indigofera as supplementary green fodder. Therefore, owning forage land can serve as a viable alternative solution to address seasonal feed shortages.

2. Variation in Farming Systems

   As noted in Table 3, there are three types of livestock management systems practiced by the groups: collective, semi-collective, and individual. When goats are kept at each member's home, it results in variations in feed quality, housing conditions, and animal health management, leading to inconsistent outcomes. Monitoring herd population, recording births and deaths, and evaluating productivity also require greater effort due to the predominantly individual-based management. While this approach provides flexibility in utilizing the grant, DKPP reported difficulties in monitoring goat development because the animals are dispersed across various locations. The farming system preferred by DKPP is the collective system; however, based on the interviews, the head of *Kelompok Ternak Nusantara Jaya Parangagung* stated that collective rearing is more difficult to implement due to differences in member discipline within the group. When daily livestock management is rotated among members, goats may receive inconsistent treatment. A potential middle-ground solution is a collective rearing system in which each farmer maintains responsibility for specific animals, as the system practiced by *Perkumpulan Kelompok Ternak Estu Karya Jaya*, or a semi-collective model, which allows for centralized feeding and easier supervision of animal health and development. This adoption would require external assistance, as explained by Fanta et al., (2024), that the adoption of such strategies may be influenced by various factors, including age, farmland size, livestock ownership, income level, market access, extension services, participation in local organizations, and agro-ecological conditions.

3. Health Management

   Health is a critical component of livestock production systems, as it directly influences productivity and, consequently, the profitability of farming activities. As noted by Perry et al., (2018), improving animal health contributes to sustainability by reducing the negative impacts of disease and enhancing production efficiency. Health management is mostly carried out by each farmers, as the majority adopt individual farming systems. Most groups practice early detection and basic treatment and contact a veterinarian in more serious cases, while preventive care were typically informal and relies on the farmers' experience or shared knowledge among group members. Based on interview findings, most groups reported cases of bloat (*kembung*) and scabies (*gudik*) among their goats. Other reported health problems include lice infestations, respiratory symptoms (such as *masuk angin* and coughing), *gondongan* or mumps (neck swelling), minor injuries, and feed poisoning. Bloat, in particular, is a serious concern, as it can lead to rapid death if untreated. As explained by Yanuartono et al., (2018), bloat in goats is characterized by excessive gas accumulation in the rumen or abomasum, resulting in abdominal distension, discomfort, and potentially death. Therefore, livestock group also plays a key role in health management by facilitating knowledge sharing about treatments and symptoms, coordinating with veterinarians, and, in some cases, allocating emergency funds from group savings to cover treatment costs, as practiced by *Kelompok Ternak Podo Joyo Abadi Siman Kepung Berdaya*.

4. Reproduction Management

   As the majority of farmer groups in this study focus on goat breeding, reproductive management plays a critical role in determining productivity outcomes. According to Susilawati et al., (2013), an efficient goat breeding system can produce up to six offspring over three parturitions—averaging two kids per birth—within a two-year period. Based on interviews conducted from the start of the grant implementation in late 2022 through March 2025, most groups reported that their goats have given birth approximately once or twice during this period. However, they were unable to provide precise quantitative data for each goat under individual care. Several reproductive challenges were identified: four groups reported cases of infertility or non-productive does (*majer*), three experienced kid mortality—often due to unnoticed trampling or feed-related poisoning—two groups encountered miscarriages, and one group noted instances of missed estrus. These findings highlight the need for systematic reproductive recording and closer monitoring, particularly for pregnant goats, to improve reproductive success and ensure the sustainability of the breeding program.

Conclusion

The findings reveal that most farmer groups primarily utilized the funds for goat procurement, with a particular focus on breeding, using traditional to semi-intensive farming systems. The most favored goat breed among the farmer groups was Jawarandu, followed by Peranakan Etawa (PE). There was notable variation in farming practices, with groups adopting

individual, semi-collective, or collective management approaches, reflecting their respective resources, organizational maturity, and goals. Despite differences in implementation, most groups complied with the technical guidelines and leveraged the grant as initial capital to begin or enhance their goat farming activities. Key supporting factors in the utilization of grant funds included access to diverse local feed resources, flexible utilization guidelines, availability of veterinary support, strong member solidarity, and convenient goat marketing channels. Conversely, the study identified several hindering factors, such as seasonal feed shortages, limited health and reproductive management practices, and challenges in monitoring when goats are individually housed. These issues were particularly prevalent among newly formed groups with minimal prior experience.

Overall, while the grant program has the potential to stimulate goat farming development and empower local farmer groups, its long-term impact depends on improving technical capacity, strengthening institutional support, encouraging systematic record-keeping, and promoting more collaborative and integrated farming models. These findings offer valuable insights for policymakers in designing more responsive and sustainable livestock grant programs in the future, and they may also serve as a foundation for further research to analyze the program's broader impacts.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in this work.

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