

SPR: Empowerment of Smallholder Livestock Farmer Community

SPR: Pemberdayaan Pada Komunitas Peternak Rakyat

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ABSTRACT

The School for Smallholder Livestock Farming (SPR) as a participatory learning program for smallholder livestock farmers in Indonesia has three main objectives, namely (1) changing the mindset and character of livestock farmers from individual-traditional farmers to professional mutually cooperative collective livestock entrepreneurs, (2) building mutual cooperation collective businesses in livestock and other commodities, and (3) strengthening science and technology as a basis for farmers to cultivate livestock business-oriented. This research aims to investigate the changes that occur in the community of smallholder farmers after participating in the SPR-IPB program and measure the level of effectiveness of the SPR program. The research used mixed methods with quantitative and qualitative approaches. Data collection was carried out in three locations in the community of smallholder farmers. Respondents are farmers who have graduated from the SPR program and have joined the Indonesian SPR Alumni Solidarity Association (SASPRI). The research time is one full month, in December 2022. The results of this research show that the SPR program can achieve its three goals and change the actions of farmers at the community level.

Keywords: empowerment, smallholder livestock farmer, SPR



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INTRODUCTION

Concern about the weak performance of livestock farmers in many aspects was inspired by the formation of the School for Smallholder Livestock Farming (SPR) at IPB University in May 2013 because they control 98% of the local livestock population in Indonesia. On the one hand, 98% of the farmers have a junior high school education or lower and many also do not get the school. In general, the livestock community does not have knowledge and does not have technology experts, so livestock are kept alive and often used as life savings.

Through the School for Smallholder Livestock Farming (SPR) (Muladno *et al.*, 2019a), it is hoped that there will be a change in the livestock community from individual-conventional to collective-professional based on strong science and technology and managed through collective business in the congregation. In principle, SPR is implemented using participatory learning over a period of around two years in livestock communities in one sub-district or at least three villages. The spirit of community empowerment is the main concept and program in carrying out SPR's participatory learning activities.

This is in line with the spirit of village development with village autonomy through Law Number 6 of 2014 concerning Villages. Government Regulation Number 43. Article 1 (8) as the implementing regulations states that village development is an effort to improve the quality of life and living for the greatest welfare of village communities. Article 78 paragraph 1 states that village development aims to improve the welfare of village communities and the quality of human life as well as overcoming poverty through fulfilling basic needs, developing village facilities and infrastructure, developing local economic potential, and using natural resources and the environment in a sustainable manner. Furthermore, paragraph 3 states that village development prioritizes togetherness, kinship and mutual cooperation in order to realize the mainstreaming of peace and social justice. Adi (2013) states that development in Indonesia would be meaningless if village community development was not carried out because it was realized that there were still quite several villages that had not been optimally developed. Rangkuti (2011) states that the development paradigm is currently experiencing a shift in which development emphasizes empowerment, known as human development, based on local resources and institutional development. Mardikanto (2010) states that community empowerment is a participatory process that gives trust and opportunities to the community to examine the main challenges of development and propose activities designed to address the problems faced dynamically and potentially based on regional, regional, and national programs. Then, Ahmad & Talib (2014) reveals that empowerment programs that directly involve the community as subjects or program actors will be able to improve people's welfare. Community empowerment is closely related to the sense of community.

Empowerment activities in the community are one of the efforts to alleviate poverty that involve the community in it as proven by several research results. Hardianto (2022) states that community empowerment can affect village poverty eradication. Saharuddin's research (2009) states that social welfare development or community development, including poverty alleviation programs, can be implemented appropriately through the eyes of the local community as the target object. Furthermore, research by Dewi *et al.*, (2023) states that conditions of poverty cause poor people to be unable to adequately meet basic needs such as food, health, education, housing, and employment. The complexity of the problem of poverty makes every effort to overcome poverty require a comprehensive, integral, and sustainable approach.

Empowering the community of smallholder farmers through the participatory learning program of the School for Smallholder Livestock Farming (SPR) is an effort to build a cooperation business so that the income and welfare of breeders increase; this occurs due to increased efficiency and productivity in the livestock business by providing motivation and access to knowledge and experience from various sources that support upstream-downstream livestock activities (Agatha *et al.*, 2022a). Over the last ten years, the SPR-IPB program has developed, despite being constrained by Covid-19 in 2020-2021. From 2013 to the end of 2022, 56 SPR-IPB were declared in 25 districts and 13 provinces. Of this number, 19 SPRs have graduated and transformed to form the Indonesia SPR Alumni Solidarity Association (SASPRI)¹. Muladno (2016) believes that the SPR, which was built through a bottom-up approach, has

¹ The Indonesian SPR Alumni Solidarity Association (SASPRI) was established as a vehicle for the togetherness of community breeders (SPR, which have been declared passed by the LPPM IPB University Team) with business partners, academics/researchers, and the government to continue to play an active role in building national livestock in Indonesia.

a much better impact on socio-economic changes so that it can contribute to the welfare of the community of smallholder farmers. This statement is supported by research from Bahruddin (2018) and Agatha *et al.*, (2022b) which reveal that the beef cattle business carried out by SPR members gains profits as evidenced by the increased R/C value. This statement is supported by BPS East Java (2018) Bojonegoro Regency, where there has been an increase in the beef cattle population, which has grown by 8.10%/year, it the beef cattle population in 2014 of 160,037 to 218,131 in 2017. An increase in the population means a change, especially in the socio-economic aspects of the community of smallholder livestock farming community. Then, the results of research Anshari (2019) and Agatha *et al.*, (2022a) also state that farmers recognize that there are differences in managing livestock after they join the SPR because they always follow instructions given by sources both academics (lecturers and students) and the local district government. It is not too much if the existence of this SPR will have an impact on population growth from year to year. Increasing the population means providing changes, especially in the socio-economic aspects of the SPR community. These positive changes cannot be separated from the role of an actor who is active or dominates in it, such as the SASPRI Regional Guardian in each location. In line with research conducted by Wantona *et al.*, (2017) an actor's actions are influenced by structure and agency.

Document of Intellectual Property Rights (HKI) SPR-1111 IPB which is written by Muladno *et al.*, (2019) states that there are three indicators of empowerment carried out in the SPR participatory learning program, namely changes in mindset, collective business cooperation, and the ability to adopt science and technology. This is in line with the meaning of empowerment according to Wilkinson (1997) which states that empowerment is increased knowledge, experience, and ability to work or solve problems in a particular institution. This indicates the empowerment program's effectiveness in the two communities.

Ansar Firman *et al.*, (2021) reveals that community-based empowerment has a strategic dimension in exploring community potential and capacity building. This is because the involvement of the local village community will build a positive socio-political construction for the community by strengthening the process of deliberation and cooperation in the village. With the three main objectives of the SPR program as described above, the expected target of implementing the SPR is for community breeders to be self-sufficient through collective business to improve the welfare of breeders and reduce poverty. The effectiveness of a program can be achieved if the program is right on target, goals are achieved, and it has a positive impact on society or the community.

Based on the description above, this research was conducted to study and analyze the implementation of SPR with three main objectives in three SASPRI Region locations and measure the level of effectiveness of the community empowerment program for smallholder farmers located in three SASPRI Regions.

METHODS

Three communities of smallholder livestock farmers who have graduated from the SPR program and are members of SASPRI with different characteristics were selected for this research object. First, SASPRI Area is a transmigration population from various areas dominated by ethnic Javanese residents. Second, the SASPRI area is a native of Java, and there is no intervention from other cultures. Third, the SASPRI area is the indigenous people of the Kaili tribe. The difference in the character of this community will be seen in its influence on the level of effectiveness of the empowerment implemented in the three locations. Empowerment of smallholder farmer communities is a continuous process to build the ability of breeders who are members of a community by encouraging and providing motivation and raising awareness of their potential so that they can be independent and improve their standard of living.

The process of extracting data and information in this study was carried out through a mixed-method method using both quantitative and qualitative approaches. The data collection process was carried out using structured interviews, namely questionnaires and in-depth interviews, to dig deeper into information related to the program's effectiveness in empowering the smallholder farmers, both from respondents and informants. The research was conducted in (1) SASPRI, Sungai Lilin area in Cinta Damai Village, Sungai Lilin District, Musi Banyuasin Regency, South Sumatra Province; (2) SASPRI for the Ngadiluwih Region in Ngadiluwih Village, Ngadiluwih District, Kediri Regency, East Java Province and (3) SASPRI for the Dolo Selatan Region in Bulubete Village, Dolo Selatan District, Sigi Regency, and Central Sulawesi Province.

Structured and in-depth interviews with respondents were conducted with 30 people from each research location so that the total number of respondents in this study was 90 people representing the total population of respondents who are members of the three SASPRI Regions. Furthermore, the accidental sampling method was also used in determining each respondent with the criterion that the respondent is an active breeder who is a member of the smallholder farmer community empowerment program. The data and information collected in quantitative and qualitative data were processed using the Ms. Excel application to calculate quantitative data. In contrast, qualitative data was processed and analyzed through three stages: the reduction stage, the data presentation stage, and the conclusion and verification stage of the data and information obtained during research to completion of writing.

RESULTS AND DISCUSSION

Participatory Learning System in Smallholder Livestock Farmer Community

The participatory learning is in line with the concept of participatory development which can provide significant change to the success of the community of smallholder farmers in cultivation and the livestock business. According to Hasim & Rewiswal (2019) participatory development is characterized by implementing: (1) empowerment as an effort to realize the ability and independence of the community, (2) openness (transparency) in every process and stage of planning, implementing and controlling development that all community can access, (3) accountability in which every development process can be adequately accounted for, (4) sustainability meaning the development process must run sustainably, and (5) participation, namely active participation and involvement of the community in the development process. Participatory learning is closely related to community participation. Munira (2023) states that community participation based on farmer groups in empowering their economy is where the community participates in the process of economic empowerment through farmer groups with efforts so that the community can further improve its economy. Economic improvement will have an impact on social welfare. Social welfare according to Neuman (2013) is "...a condition or state of human well-being." Prosperous conditions will occur if human life feels happy and safe due to their basic needs are met; and humans receive protection from risks that threaten their lives. In realizing social welfare, there are important aspects that need attention in realizing sustainable development, namely family welfare.

The results showed that the three SASPRI Regions consisting of SASPRI for the Sungai Lilin Area, SASPRI for the Ngadiluwih Region, and SASPRI for the Dolo Selatan Region had implemented the SPR participatory learning process and had been declared passed and graduated by LPPM IPB University. The learning process produces changes both in the farmer and the community. These changes include the emergence of a business orientation based on science and technology more professionally with all its dynamics in the field. Farmers have clearly managed their livestock businesses on a community basis with a spirit of cooperation (Table 1)

Table 1. Dimensions of change in the community of smallholder farmer after participating in the SPR-IPB program

No	Research location	SPR goals	Dimensions of change	
			2013-2018	2018-present
1	SPR Sungai Lilin Region	Mindset Change	In 2013-2014 the SPR IPB program began to be socialized at SPR Sungai Lilin	A change in mindset is starting to be felt by several farmers who are members of the SPR community
		Business collective	In 2015 SPR Sungai Lilin started a collective business in the rubber sector by establishing a rubber cooperative. The existence of a rubber cooperative can increase the selling price of rubber per kg and have an impact on increasing the income of farmers. Then in	<ul style="list-style-type: none"> • 2018 Partnership of Local Services and Individuals • 2019-2022 PKBL Partnership PT. Jasindo • 2022 PKBL Partnership PT, JASINDO, PT. BMP, and the Government of Cinta Damai Village, Sungai Lilin District

No	Research location	SPR goals	Dimensions of change	
			2013-2018	2018-present
			2017 SPR Sungai Lilin officially graduated and became SASPRI Sungai Lilin Region	
		Application of Science and Technology	The participatory learning process is starting to be introduced to breeders who are members of the SPR community	<ul style="list-style-type: none"> • Understanding of livestock grazing systems • Planting quality forage for livestock • Application of animal feed formulation science to beef cattle fattening programs • Utilization of livestock waste (sale of organic fertilizer) • The importance of good livestock management to support livestock businesses
2	SPR Ngadiluwih Region	Mindset Change	In 2017 the SPR program began to be implemented at SPR Ngundi Rezeki. We have not yet felt the significant difference between the presence and absence of the SPR program in business and group livestock management, but the livestock community was able to complete the SPR participatory learning curriculum in a fairly short time (2 years) because they previously had experience in group livestock business which was fostered by the government. Local	In 2019 SPR Ngundi Rezeki officially became SASPRI Ngadiluwih Region. Collective business activities are increasingly visible with support from various parties who can provide economic growth for breeders. During the Covid-19 pandemic, breeders remained active in studying and practicing directly the knowledge provided by their companions, thereby further strengthening the livestock business in the SASPRI Ngadiluwih area.
		Business collective		The implementation of collective business is carried out when obtaining partnership programs from both the government and the private sector. Currently, SASPRI Ngadiluwih Region is actively managing and optimizing the Government's 1000 Cattle Villages program
		Application of Science and Technology		<ul style="list-style-type: none"> • Implementation of intensive BX and PO cattle fattening businesses that meet standards • Carrying out a BX cattle breeding program • Livestock management is implemented well • Availability of quality forage • Implementation of animal feed ration formulation (concentrate manufacture) for fattening BX and PO cattle • Application of animal health and biosecurity

No	Research location	SPR goals	Dimensions of change	
			2013-2018	2018-present
				<ul style="list-style-type: none"> • Sustainable processing and sale of livestock waste (organic fertilizer). • Optimization of downstream livestock products by selling fresh meat to local communities • Optimizing natural resources to support environmentally friendly and sustainable livestock businesses
3	SPR Dolo Selatan Region	Mindset Change		In 2019 the SPR program was implemented. In 2021 SPR Anutapura South Dolo graduated and officially became SASPRI South Dolo Region. The Area Guardian felt a change in mindset in livestock management after participating in the SPR program
		Business collective		Collective business was introduced in 2019 when the SPR program was socialized and breeders who were members of the community began to implement it. Until now, the collective business system continues to be implemented and improved by SASPRI South Dolo Region.
		Application of Science and Technology		<ul style="list-style-type: none"> • Implementing housing management, farmers are starting to understand the importance of good cages for livestock • Utilization of vacant land for livestock activities such as planting quality forage for livestock • Understand and try to implement the livestock management system well • Farmers understand that the application of science and technology in animal husbandry will make it easier and provide benefits in the livestock business

SASPRI Sungai Lilin Region is a group that grew out of a farmer group organization which was formed as a result of the transmigration program in 1998. At that time, the farmer members who were part of the farmer group had no experience and did not understand technical and non-technical science and technology in livestock management. Since 2013-2014 the SPR program began to be implemented so that breeders actively joined the SPR management at that time and in 2017 were declared graduates and graduated by LPPM IPB. This trip was able to provide a change in mindset and character in the breeders who are members of the SASPRI Sungai Lilin Area. Before getting to know SPR, breeders raised livestock individually and all matters related to technical and non-technical livestock farming were done

in traditional ways, and they did not know the science of livestock management. By joining SPR and graduating and transforming into SASPRI Sungai Lilin Region, changes are slowly continuing to occur and we are always being creative, trying and applying the knowledge gained from SPR. The change in mindset regarding understanding the importance of networking and expanding friendships has increased the self-confidence of breeders. Not only that, SASPRI Trustees for the Sungai Lilin Area became representatives of smallholder farmers in the SPR IPB delegation at the 62nd International Atomic Energy Agency General Conferences in Vienna, Austria on 17-21 September 2018 because of the SASPRI trustees' ability to organize their members. A guardian has become an influential figure in the livestock community in the Sungai Lilin area. From the perspective of building a cooperation collective business in animal husbandry and other agricultural commodities, SASPRI Sungai Lilin Region succeeded in forming and establishing a rubber cooperative in 2015 and an oil palm cooperative in August 2022 with the main aim of improving the welfare of farmers through increasing the selling price of rubber. and palm oil is higher because the amount of rubber and palm oil produced is high and sold through an auction process. This collective sales pattern breaks the previously entrenched market chain. Regarding the aspect of science and technology (science and technology), most of the breeders who are members of the SASPRI Sungai Lilin Area use a semi-intensive farming pattern by providing quality forage while still being grazed in order to increase the breeding of Bali cattle.

‘We always follow the advice of our teachers from IPB-University because it has brought big changes. Maybe we would not have become like this without guidance from IPB University through the SPR program’. (50 years WG).

SASPRI Ngadiluwih Region started from a group of livestock breeders who had experience in managing livestock businesses as a group when they received partnership funds from the Food Security and Livestock Service of Kediri Regency for four years with a value of around IDR 1 billion starting in 2014. With this program, the livestock group succeeded in managing community-based livestock business and able to contribute in the form of Village Budget Revenue (PAD) through profit sharing from partnerships. Entering 2016, livestock groups experienced a temporary stop in their livestock business due to the lack of additional cash injections from the government. In 2017 the SPR program began to be socialized in the Ngadiluwih area, and breeders were enthusiastic about taking part. Community partnerships are starting to be intensified again and the application of science and technology is being emphasized more in livestock businesses. In 2019 the SPR Ngadiluwih livestock group was declared a graduate and transformed into SASPRI Ngadiluwih Region, Kediri. The journey is quite short in completing the SPR-1111 IPB curriculum. Farmers' motivation to run a community-based cattle business is increasing and encouraging other livestock groups to follow in their footsteps. Big changes in many aspects have occurred significantly since joining SPR and becoming Regional SASPRI. The spirit of independence through partnerships with various parties is wide open so that the government is not the only source of partnership. Farmers in the Ngadiluwih area remain enthusiastic about continuing to raise livestock because they fully understand the nature and benefits of running a livestock business as a group.

‘After joining SPR and becoming SASPRI for the Ngadiluwih Region, we felt an extraordinary change in mindset; this change began with the interaction between us breeders and lecturers and students from both the IPB University campus and UNISKA campus, Kediri’. (JS 47 Years)

The formation of a collective livestock business in cooperation was the result of the educated minds of the breeders when they joined the SPR. Livestock systems that are managed jointly and have the same responsibility for the livestock business can make SASPRI in the Ngadiluwih Region more compact and solid. This group-managed livestock system is not only in one group but occurs in several other groups under its guidance. The breeders in SASPRI Ngadiluwih Region have the same sense of ownership, and all work together and provide precise feeding. All are equal, no one is superior, and no one is worse; all are equalized. This significantly impacts the excerpt of the results obtained from the collective livestock business. Breeders feel the benefits of doing livestock business collectively in this cooperation.

Regarding the use of science and technology (IPTEK), collectively, the understanding of breeders at SASPRI in the Ngadiluwih area in the livestock business can be felt. This can be seen from all the components of the livestock business that have been carried out from upstream to downstream and have had a significant impact on the profits obtained by the breeders. The intensive fattening of Brahman Cross (BX) and Ongole crossbreed (PO) cattle, as well as other crossbreed cattle with the top product

ready-to-slaughter cattle, has been carried out with excellent feed management, starting from the availability of high-quality forage, the use of feed formulations in making feed and feed rations. Good concentration for the fattening program. Not only fattening programs but also starting to carry out breeding programs and livestock reproduction management has been implemented very well. For the downstream aspect, the sale of livestock products in the form of fresh meat and organic fertilizer from the utilization of waste is also managed very well. This business activity dramatically adds to the income of the farmers. It increases the farmers' enthusiasm in SASPRI, Ngadiluwih Region, to continue to be productive in collectively running the livestock business.

The SASPRI Secretariat for the Dolo Selatan Region is in Bulubete Village, Dolo Selatan District, Sigi Regency, Central Sulawesi. In 2019 the SPR program began to be introduced to community breeders in Sigi Regency after the Regent of Sigi and Chancellor of IPB signed a cooperation in the development of the livestock sector. It was also in that year that the Anutapura Dolo Selatan SPR was declared. With the extraordinary enthusiasm of the breeders accompanied by a manager, SPR Anutapura Dolo Selatan was able to complete the SPR-LPPM IPB University curriculum and graduate at the end of 2021. The attitude of traditionally stigmatized breeders and the lack of desire to change in the livestock business is refuted by the presence of the SPR program, which is currently SASPRI for the South Dolo Region. The SASPRI Dolo Selatan Regional Guardian emphasized this fact:

“With the existence of the SPR program and currently becoming SASPRI, we as breeders in Bulubete village feel a change in mindset, especially in livestock management”. (AF 37 years)

Slowly but surely, and with the support from the Sigi Regency government and academics in guiding the breeder groups in SASPRI in the Dolo Selatan Region, currently the breeders are starting to feel the benefits of this change in mindset. One thing that can be seen with the naked eye is that previously, the cows were never kept in pens and were only tied up beside the house. The breeders are starting to build pens, keeping their livestock in intensive care systems. Not only that, when the SPR existed, and currently it has become SASPRI for the South Dolo Region, breeders began to use vacant land or land under the shade of coconut trees to plant quality forage to meet livestock needs. In addition, related to the implementation of the cooperation business in running the livestock business, SASPRI for the South Dolo Region has implemented it by forming stables and collective sales so that it has an impact on the high demand for calves for fattening and continues to open opportunities for partnership programs.

The Effectiveness of Smallholder Livestock Farmer Community

Effectiveness is one of the main elements in achieving the goals or objectives determined in every organization, activity, or program. It is said to be effective if a predetermined goal or target can be adequately achieved (Natsir, 2021). Kambey (2017) states that effectiveness is the relationship between output and goals. The more significant the output contribution to achieving goals, the more effective an organization, program or activity will be. Effectiveness is a condition or circumstance, where in choosing the goals to be achieved and the means used, as well as the capabilities possessed are appropriate, so that the desired goals can be achieved with satisfactory results (Bastaman *et al.*, 2020). Furthermore, Mahsyar & Nihayati, (2022) state that community empowerment refers to improving the life of a group consisting of individuals who do not have a spatial relationship but have the same interests, concerns, or identities. Then research by Agatha *et al.*, (2022a) states that empowering smallholder livestock farming community is a continuous process to build the ability of farmers who are members of a community by encouraging and providing motivation and raising awareness of their potential so they can be independent and improve their standard of living. Furthermore, it refers to the three indicators in SPR empowerment, namely (1) changing the mindset and character of farmers from raising livestock individually traditionally to becoming professional collective livestock entrepreneurs, (2) building a collective business in livestock and other commodities, and (3) strengthening science and technology as a basis for farmers to cultivate business-oriented livestock. The three indicators in SPR empowerment are paired with the definition of empowerment according to Wilkinson (1997) which states that empowerment is an increase in knowledge, experience, and ability to do work or solve problems in a particular institution (Table 2).

In terms of knowledge indicator, the level of effectiveness of the community farmer empowerment program at SASPRI in the Sungai Lilin area has a high category of 77 per cent and a low category of 23

Table 2. The Relationship Between the Empowerment and Empowerment Concepts of the SPR Farmer Community

Indicator	Mindset Change	Business collective	Application of Science and Technology
Knowledge	Farmers are curious and thirsty for knowledge in upstream-downstream livestock management	Farmers know the principles of doing business collectively	Farmers know and apply the science and technology offered by sources from both academics and non-academicians
Experience	The experience of farmers while joining the livestock community (SPR) can change the mindset of farmers	Experience of farmers in implementing collective business	Experience of breeders in applying science and technology provided by resource persons
Ability	Livestock farmers can change their mindset and become sovereign and confident	The ability of livestock farmers to manage their farms thus motivates collective business	The ability of livestock farmers to apply science and technology provided by resource persons
Action	Livestock farmers can rise from the shackles of the past in raising livestock.	Livestock farmers unite and take joint action to do collective business in cooperation to improve the shared economy	Livestock farmers become enthusiastic and thirsty for science and technology.

per cent. Furthermore, in SASPRI for the Ngadiluwih Region, the high category was 87 per cent, the low category was 13, and in the SASPRI Dolo Selatan Region, the category was 81 per cent, the low category was 19 per cent (Table 3). The three SASPRI Regions have a high level of knowledge, especially in SASPRI for the Ngadiluwih Region, then SASPRI for the Dolo Selatan Region, and SASPRI for the Sungai Lilin Area. The group's background influences the high level of knowledge in accessing knowledge sources and implementation in the field, both in the technical and non-technical livestock sector. This statement is supported by the research results of Agatha *et al.*, (2023) which state that the educational background and experience of actors influence the strategies implemented in the empowerment program.

Based on the experience indicator, the level of effectiveness of the community breeder empowerment program at SASPRI in the Sungai Lilin area has a high category of 63 per cent and a low category of 37 per cent. Furthermore, in SASPRI for the Ngadiluwih Region, the high category was 78 per cent, the low category was 22, while in the SASPRI Dolo Selatan Region, the high category was 70 per cent, and the low category was 30 per cent (Table 3). The group's activeness influences the effectiveness of experience indicators in the SASPRI region in organizing. SASPRI for the Ngadiluwih area has a higher level of effectiveness in indicators of experience, followed by SASPRI for the Dolo Selatan area and SASPRI for the Sungai Lilin area. This is because, even in the conditions of the Covid-19 pandemic, the SASPRI Group in the Ngadiluwih Region remains productive and is doing various ways so that they can continue moving forward to provide welfare for SASPRI members and administrators.

On the ability indicator, the level of effectiveness of the community breeder empowerment program at SASPRI in the Sungai Lilin area has a high category of 67 per cent and a low category of 33 per cent. Furthermore, in SASPRI for the Ngadiluwih Region, the high category was 73 per cent, the low category was 27, and in the SASPRI Dolo Selatan Region, it was 68 per cent, the low category was 32 per cent (Table 3). The ability level of each SASPRI Region is measured based on how optimal the utilization of existing resources (human resources and nature resources) can be productive and support performance in livestock herds in each SASPRI Region. SASPRI for the Ngadiluwih Region has a high ability level compared to the other two SASPRI Regions, namely SASPRI for the Dolo Selatan Region and SASPRI for the Sungai Lilin Area. This is due to the direct involvement of SASPRI members and administrators in the Ngadiluwih area, who are active and directly involved in running productive farms and have an impact on improving the farmers' economy.

Table 3. SPR Farmer Community Empowerment Effectiveness Level

Category	Indicator											
	Knowledge (%)			Experience (%)			Ability (%)			Action (%)		
	SPR Sungai Lilin	SPR Ngadil uwih	SPR Dolo Selatan	SPR Sungai Lilin	SPR Ngadilu wih	SPR Dolo Selatan	SPR Sungai Lilin	SPR Ngadilu wih	SPR Dolo Selatan	SPR Sungai Lilin	SPR Ngadilu wih	SPR Dolo Selatan
Low	23	13	19	37	22	30	33	27	32	27	11	15
High	77	87	81	63	78	70	67	73	68	73	89	85

Regarding action indicators, the effectiveness of the community breeder empowerment program in the SASPRI Sungai Lilin area has a high category of 73 per cent and a low category of 27 per cent. Furthermore, in SASPRI for the Ngadiluwih Region, the high category was 89 per cent, and the low category was 11, while in the SASPRI Dolo Selatan Region, the high category was 85 per cent, and the low category was 15 per cent (Table 3). SASPRI Ngadiluwih Region has the highest effectiveness on action indicators compared to the other two SASPRI Regions; this is due to the consistency of members and administrators in implementing cooperation business. Regarding action indicators, the ability of the SASPRI Region group to run business partners is the primary indicator of success or action that emerges from the group.

CONCLUSION

The Community of smallholder farmers in three SASPRI Region locations, namely SASPRI Sungai Lilin Region, SASPRI Ngadiluwih Region, and SASPRI South Dolo Region have implemented the SPR participatory learning program well so that the three main objectives of SPR which consist of changing mindsets, cooperation collective business understanding, and mastery of science and technology can be achieved and implemented in these three locations. This means that the effectiveness of the SPR program is high. However, several suggestions for improving the program still need to be given, so that farmers' prosperity can be achieved quickly and widely among farmers. These suggestions include the need to carry out further research using quantitative methods to find out and or investigate the changes that occur in the community of smallholder farmers after joining and participating in the SPR program. Furthermore, the active involvement of Regional Guardians in leading cooperation collective business and expanding the investor network and expanding knowledge is highly expected to support the sustainability of the community empowerment program for smallholder farmers.

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