



EVALUATION OF THE KARTU TANI PROGRAM IN SUBSIDIZED FERTILIZERS DISTRIBUTION IN BANYUMAS REGENCY, CENTRAL JAVA PROVINCE

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Abstract

The Governor of Central Java Province initiated the Kartu Tani Program to realize the distribution, control, and supervision of subsidized fertilizers for farmers. However, there are still problems with implementing this program from the farmers, KPL (Complete Fertilizer Kiosk) and distributors, related agencies, and third parties, BRI Bank. The problems include the scarcity of subsidized fertilizers, delays in fertilizer distribution, inaccuracy targeting, and overpriced provision. So, this article proposes to discuss the Kartu Tani Program evaluation in Banyumas Regency. Using the Quasi Qualitative Design (QQD), the data was obtained from various documents, observations, and interviews. This article also used Manual Data Analysis Procedure (MDAP). Based on the evaluation, after the existence of the Kartu Tani, farmers experienced many conveniences, including the relatively low price of fertilizer, the fertilizer quota, and the specific location of the fertilizer seller based on residents and farmer groups. Not only farmers, fertilizer sellers, and distributors also benefit from the Kartu Tani to make subsidized fertilizer reports from sales to distributors. On the other side, we show that many complaints regarding the Kartu Tani are still entered into the Banyumas Regency complaint hotline, but most of these complaints can be resolved. The Department of Agriculture and Food Security of Banyumas Regency commits to optimally implementing the Kartu Tani Program as the right solution for subsidized fertilizers distribution to farmers in the Banyumas Regency.

Keywords: Fertilizer distribution, Kartu Tani, policy evaluation, subsidized fertilizers.

Abstrak

Gubernur Provinsi Jawa Tengah menginisiasi Program Kartu Tani untuk mewujudkan penyaluran, pengendalian, dan pengawasan pupuk bersubsidi bagi petani. Namun, masih terdapat kendala dalam pelaksanaan program ini baik dari petani, KPL (Kios Pupuk Lengkap), distributor, instansi terkait, maupun pihak ketiga, yaitu Bank BRI. Permasalahan tersebut antara lain terjadinya kelangkaan pupuk bersubsidi, keterlambatan distribusi pupuk, target penyaluran yang tidak tepat dan harga pupuk yang tidak sesuai. Artikel ini bertujuan untuk membahas evaluasi program Kartu Tani di Kabupaten Banyumas. Dengan menggunakan *Quasi Qualitative Design* (QQD), data diperoleh dari berbagai dokumen, observasi, dan wawancara. Artikel ini juga menggunakan analisis data berupa *Manual Data Analysis Procedure* (MDAP). Berdasarkan hasil evaluasi, setelah adanya Kartu Tani, petani mengalami banyak kemudahan, diantaranya harga pupuk yang relatif murah, kuota pupuk, dan penjual pupuk berlokasi dekat dengan warga dan kelompok tani. Tidak hanya petani, penjual pupuk, dan distributor juga diuntungkan dengan Kartu Tani dalam membuat laporan pupuk bersubsidi dari penjualan ke distributor. Di sisi lain, menunjukkan bahwa masih banyak pengaduan mengenai Kartu Tani yang masuk ke *hotline* pengaduan Kabupaten Banyumas, namun sebagian besar pengaduan tersebut dapat diselesaikan. Dinas Pertanian dan Ketahanan Pangan Kabupaten Banyumas berkomitmen untuk melaksanakan Program Kartu Tani secara optimal sebagai solusi yang tepat dalam penyaluran pupuk bersubsidi kepada petani di wilayah Kabupaten Banyumas.

Kata kunci: Distribusi pupuk, Kartu Tani, evaluasi kebijakan, pupuk bersubsidi.

I. INTRODUCTION

Agriculture is a significant financial contributor to the Indonesian economy. According to the Ministry of Agriculture (Kementan), amid the Covid-19 pandemic, the agricultural sector has contributed significantly to

the national economy. Based on data from the Central Statistics Agency, year-on-year growth in the farming sector in the fourth quarter of 2020 was 2.59 percent, 10.47 percent of which was supported by the food crops sub-sector, including rice (Tempo. com, 2021). In contrast to these achievements, Indonesia's agricultural sector still has many problems (Chakim, 2020; Fanani

et al., 2022). Through the Ministry of Agriculture, the government seeks to overcome the shortages of subsidized fertilizers by issuing several policies related to subsidized fertilizers. Some of these policies include the Bimas and Inmas program (1969), the gas cost subsidy incentive for fertilizer producers (2002), the policy on the application of fertilizer HET (Highest Retail Cost) (2006), the replacement of subsidized fertilizer supply companies, farmer group subsidies, to Kartu Tani Program.

The Kartu Tani Program is a program initiated by the Governor of Central Java Province to realize the distribution, control, and supervision of subsidized fertilizers for farmers. This program's implementation depends on six principles: the right amount, type, time, place, quality, and cost. This program also provides banking services for Central Java farmers (Jatengprov.go.id, 2017). Department of Agriculture and Food Security in Banyumas Regency has distributed Kartu Tani to registered farmers in the Indonesian Agricultural Information System (SINPI) by collecting data and inputting farmers' data needs in the Definitive Plan for Group Needs (RDKK).

The Kartu Tani program has long been implemented in Central Java. However, there are still problem implementations from the Kartu Tani admin, BPP (Agricultural Extension Agency), BRI Bank, fertilizer distributors, and farmers. The author also found some problems—first, the low level of farmers' awareness and perception of the Kartu Tani. For instance, in Patikraja District, until now, there are still farmers who have not registered with the Indonesian Food Management Information System (SIMPI), so these farmers cannot use Kartu Tani. Second, the Complete Fertilizer Kiosks are not located in the village of the distribution area, so it requires additional costs for farmers to buy fertilizer. Third, the lack of coordination between BRI Bank and PPL (Fellow Agricultural Extension) in printing Kartu Tani, so PPLs do not know the exact number of Kartu Tani that have been and have not been printed. In this case, the bank does the printing of Kartu Tani unilaterally.

Some research on Kartu Tani implementation has been done such as (Fahmi & Maria, 2020; Laleb & Nuswantara, 2019; Lestari & Wijayanto, 2022; Moko, K. W., Suwanto, S., & Utami, 2017; Wahid et al. 2021). But, this research focuses on evaluating the Kartu Tani Program implementation in the Banyumas Regency using Manual Data Analysis Procedure (MDAP) to find more alternative strategies. So, hopefully, It will provide an overview of alternative problem-solving and evaluation of the Kartu Tani program.

LITERATURE REVIEW

An evaluation process contains at least several dimensions in conducting an evaluation, namely the impact of policies on the public problems of a target group, the result of policies on groups outside the target group, the impact of policies on the current era and the future era (Kiu, 2018). (William N Dunn, 2003)

suggests that there are criteria in policy evaluation, namely:

1. Effectiveness is whether a policy can achieve its objectives of the policy.
2. Efficiency is the amount of effort needed to achieve the level of effectiveness.
3. Adequacy is the achievement of results in solving problems.
4. Alignment is the equitable distribution of costs and target group benefits.
5. Responsiveness is the achievement of a policy addressing the needs and values of particular groups.
6. Accuracy is the value of the desired policy objective

In addition, there are four evaluation techniques, according to Finsterbusch and Motz (Subarsono, 2015), namely

1. Single program After-Only is based on the target group's conditions after implementation.
2. Single Program Before-After is based on the target group conditions before and after the program's implementation in terms of its changes.
3. Comparative After-Only analogizes the differences between target groups and non-target groups.
4. Comparative Before-After is based on the target group and the impact received before and after the program's implementation.

The policy is a systematic process. So that in conducting an evaluation, it is necessary to pay attention to the steps in the review. The Suchman theory in (Winarno 2014) states there are six policy evaluation steps: identification of program objectives, problem analysis, description and activities standardization, measurement of the change level, and determining the observed changes.

The Kartu Tani Program is a government policy. Public policy is a government activity where the community must participate, whether the government carries out an act or not. The policy is a way of controlling and defining something the government must implement in a problem, the triggers, and the effects of the public policy. The public policy process is a series of stages, from formulating to evaluating public policies.

Evaluation is a way of understanding to assess an action, activity, or program carried out, whether it is by the objectives or plans. Evaluation is also a process for making decision options by planning, obtaining, and providing the information needed. Evaluation includes receiving information to judge the program, product, procedure, and objective worth. (Hajaroh, 2018). This opinion defines evaluation, namely the determination of value related to a matter, the accumulation of facts used to determine the value of the

success of an agenda, results, procedures, objectives, or potential uses of alternative planning to maintain a particular plan. Policy evaluation has several roles in the policy analysis process. These roles include providing valid information related to policy performance, clarifying and critiquing values that underlie the selection of goals and targets, and contributing to policy analysis methods.

Agriculture is one of the sectors of the community's economy for production and consumption needs. Indonesian Government Law Number 19 of 2013 About the Protection and Empowerment of Farmers explains agriculture is the activity of managing living natural resources with the help of technology, modes, human resources, and management. It produces commodities, such as food crops, horticulture, plantations, and livestock in an agroecosystem. Mosher also argues, "Agricultural development is a part of economic development and society in general" (Sudalmi, 2010).

The concept of agricultural development is defined as a description of all natural resource management efforts to improve farmers' welfare through environmentally friendly ways. According to Mosher, there are five main requirements in the concept of agricultural development, namely: (Sudalmi, 2010)

1. The market for farming products exists.
2. Technological developments.
3. Local production materials and tools are available.
4. The production stimulants for farmers exist.
5. Transportation is smooth and continuous.

In this case, the government issued an agricultural policy in the Kartu Tani Program to carry out one of the above development requirements, namely the availability of materials in the form of subsidized fertilizer for farmers and efforts to optimize the distribution process.

II. METHOD

The article used the Quasi Qualitative Design (QQD). The side of positivism happens when starting deductive research using theory. When it enters the data analysis stage, the technique turns inductively through how the researcher analyzes the data. According to (Bungin, 2020), Quasi Qualitative Design has the following steps: searching for the problem, literature review, founding the gap, constructing hypotheses, planning data sources and constructing data collections method, data collection, keeping a diary, transcript, coding, themes, categorization, and memos, building and confirmation theory, constructing new theory (Bungin, 2020).

This article's primary data consists of observations and interviews with 20 informants. The informants consisted of a chair of the Farmer Card Section, a head of the Banyumas Regency Agriculture and Food Security Service, a Banyumas Regency Farmer Card Admin, a Kebasen Sub-district Head, a Patikraja Sub-district Head, two people of District PPL, two people of KPL Owners, a BRI Bank Officer, and ten farmers. The author also observed directly by looking at the transaction process using the Kartu Tani at the nearest KPL.

The article's secondary data consists of notes during observation, archives, and several supporting documents received at the Banyumas Regency Agriculture and Food Security Service and the District of BPP Office. In addition, documentation during the research also become a secondary data source for this article. The data analysis used Manual Data Analysis Procedure (MDAP) to find a more comprehensive problem solution.

III. RESULT AND DISCUSSION

Evaluation of The Kartu Tani Program in Banyumas Regency

The information from the Bureau of Infrastructure and Natural Resources website in Central Java Province stated that Kartu Tani is a Bank Rakyat Indonesia (BRI) co-branded debit card. This card informs the subsidized fertilizer allocations and payment transactions in BRI Electronic Data Capture (EDC) machine. It is also placed at retailers and is generally helpful for all banking transactions (Jatengprov.go.id, 2017).

The program realizes the distribution of subsidized fertilizers through urea, NPK, SP, ZA, and organic. The implementation of the Kartu Tani Program's first trial in Batang Regency, Central Java, in 2015. After evaluating the trial's performance, the Governor of Central Java Instruction No. 81 of 2017 requires using Kartu Tani for all farmers in Central Java.

Until the 2017 report, all districts in Central Java had used the Kartu Tani to redeem subsidized fertilizers. In 2020, through the Minister of Agriculture Regulation Number 01 of 2020, concerned with the Location and Highest Retail Cost of Subsidized Fertilizers in the Agricultural Sector for Fiscal Year 2020, the Kartu Tani Program was officially adopted as a national policy program in agriculture and formally implemented for all farmers in Indonesia.

Banyumas Regency has implemented the Kartu Tani since 2017 but has not fully used the Kartu Tani to redeem subsidized fertilizers. It means that there is still tolerance from the Department of Agriculture and Food Security of Banyumas Regency for farmers who do not have a Kartu Tani to be able to buy subsidized

fertilizer without a Kartu Tani. In 2020, it 100 percent used Kartu Tani in redeeming subsidized fertilizers based on the Circular Letter of the Directorate General of Agricultural Infrastructure and Facilities of the Ministry of Agriculture Number 510.1/SR.340/B.5.2/08/2020 concern in Fertilizer Subsidy Governance, for the contents of the circular, including:

1. Redemption of subsidized fertilizer must use a card. Farming and collection using the Dashboard Bank.
2. Implementation of the Kartu Tani in 2020 for the Java, Madura, Sumbawa, and West Sumbawa regions as of September 1, 2020, and in 2021 is mandatory throughout Indonesia.

Based on the letter, it is officially mandatory to use the Kartu Tani in redeeming subsidized fertilizers for farmers in Banyumas Regency. The following memos will explain the result of Kartu Tani's implementation.

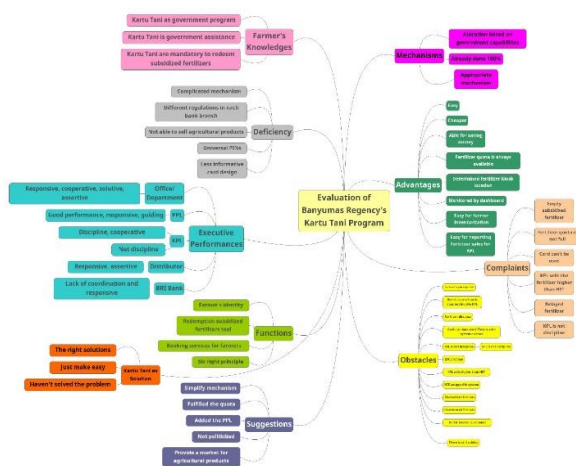


Figure 1. Memos results of the evaluation of the Kartu Tani Program in Banyumas Regency

The memo above is one of the stages in the data processing process after the research. Memos describe the research results in the form of mind mapping used by researchers in making a discussion framework and conclusions from the study.

Implementing the Kartu Tani Program in Banyumas Regency has been carried out under existing regulations and mechanisms. In 2020, Banyumas Regency obligated all farmers to use the Kartu Tani. So, there is no more extended tolerance for farmers who do not have a Kartu Tani to redeem subsidized fertilizer. Most farmers know what the Kartu Tani Program is and its function. From the interviews, most farmers said that Kartu Tani is a program given by the Central Government, especially the Ministry of Agriculture, to farmers to redeem subsidized fertilizers. Most farmers

know that using this Kartu Tani is obligatory for them to buy and save subsidized fertilizers.

Kartu Tani provides several impacts for farmers and other program-implementing components. Based on interviews conducted with several farmers in Patikraja and Kebasen sub-districts, with the Kartu Tani, farmers find it easier to find and buy subsidized fertilizers. Previously, farmers had difficulty finding subsidized fertilizers. The distance of the kiosk increases the cost of purchasing fertilizer. If there is a fertilizer shortage, farmers must look for fertilizer outside the Regency area to get fertilizer; that's all at a very high cost. However, after the existence of the Kartu Tani, farmers experienced many conveniences, including the relatively low price of fertilizer, the fertilizer quota, and the location of the fertilizer seller, who was sure because of the location of plots on the site of residents and farmer groups. Not only farmers, fertilizer sellers, and distributors also benefit from the Kartu Tani. It is easier for fertilizer sellers to report subsidized fertilizer sales to distributors. Fertilizer sellers only collect fertilizer purchase receipts for further recapitulation per month. Besides that, it is also easier for fertilizer sellers because distributors always send fertilizer again when the fertilizer stock at the kiosk is running low. It is because of the monitoring fertilizer quota at the booth through the dashboard of the EDC machine used in the transaction process using a Kartu Tani.

Kartu Tani does provide many benefits to its users. However, on the other hand, Kartu Tani has several drawbacks that give rise to obstacles in its implementation. The shortcomings of the Kartu Tani include the mechanism of the Kartu Tani, which is considered complicated. According to several District PPL tasked with assisting farmers in collecting and registering Kartu Tani, the means for submitting and registering Kartu Tani is considered too complex. Why is that? Looking back at the target of this Kartu Tani Program, namely farmers, the mechanism is considered quite difficult. The background farmers, primarily elderly with a minimum level of education, are one of the reasons for this (Fahmi & Maria, 2020). According to PPL, many farmers feel inferior and are afraid to deal with the banking sector. Besides, many farmers wrongly perceive savings as obligatory in the Kartu Tani. Apart from the farmers, the PPL also found it difficult with the existing mechanism.

All data collection and submission of Kartu Tani are carried out by PPLs, even though their number is limited. It adds to the PPL's burden when problems occur in the registration of the Kartu Tani. The Kartu Tani uses a SIMPI (Indonesian Agricultural Management Information System) owned by BRI and

eRDKK. It is an electronic system that includes a farmer profile in a farmer group and a definitive plan for the needs of the farmer group, starting from farmer data, land area, and farmers' fertilizer needs. Both SIMPI and eRDKK systems do not open at any time, usually in the middle of the year, to open new registrations. The registration and data collection mechanism of Kartu Tani also frequently changes, from initially only through eRDKK and SIMPI, now having to go through eRDKK, Simluhtan to SIMPI. The frequent changes in these mechanisms create data confusion and double for PPLs, not to mention the limited number in each sub-district.

The second drawback of Kartu Tani concerns a third party implementing Kartu Tani, namely the BRI bank. Banyumas Regency cooperates with BRI bank in implementing the Kartu Tani program. In this case, BRI bank is a provider of banking services and a provider of EDC machines for subsidized fertilizer transactions using the Kartu Tani. All BRI bank units in each sub-district serve the printing of Kartu Tani. The mechanism is that the farmer has previously received a letter of recommendation from the District PPL as proof that the farmer has the right and can print the Kartu Tani. In this case, the card printing mechanism at each BRI bank unit is different. It makes most farmers feel confused and blame the sub-district PPL. There is no uniformity of printing mechanism between one bank unit and another.

The third drawback is the uninformative design of the Kartu Tani. The side of the Kartu Tani only lists the Kartu Tani number and the name of the owner farmer. The card owner's address is not available to anticipate that if the farmer loses the card somewhere, the person who finds it can quickly return it to the addresses, so farmers with the same name are not confused when printing cards. In addition to the less informative design, the Kartu Tani PIN is universal. Irresponsible persons could misuse it. The following is the figure of Kartu Tani.

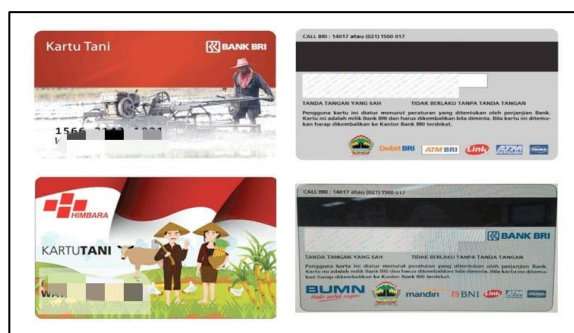


Figure 2. Kartu Tani

Kartu Tani can increase the absorption of subsidized fertilizer in the Banyumas Regency. Before

it, the absorption of subsidized fertilizer didn't reach the target and was prone to irregularities (Sucahyo et al., 2022). Based on data, the percentage of subsidized fertilizer absorption using Kartu Tani in Banyumas Regency as of December 23, 2021, has increased significantly. Absorption of urea fertilizer is 71 percent, SP-36 fertilizer is 60 percent, ZA fertilizer is 82 percent, NPK fertilizer is 98 percent, and organic fertilizer is 88 percent. This percentage compares the fertilizers' allocation and the fertilizers' realization in the field. The rate can be seen in the following table:

Table 1
Percentage Absorption of Subsidized Fertilizer Using Kartu Tani compared to Allocation in Banyumas Regency as of December 23, 2021

No	Type of Fertilizer	Allocation	Realized	Percentage
1.	Urea	19.873.000	14.017.306,82	71%
2.	SP-36	881.000	532.791,5	60%
3.	ZA	85.000	70.072	82%
4.	NPK	11.000.000	10.817.472,44	98%
5.	Organik	1.711.000	1.549.965,2	88%

Source: Department of Agriculture and Food Security of Banyumas Regency, 2021

The high absorption of fertilizers is due to the high demand for fertilizers. How did it happen? Because with the Kartu Tani, it is easy for farmers to get subsidized fertilizer, and the relatively much cheaper cost makes farmers prefer to buy fertilizer using the Kartu Tani. It also cannot be separated from the performance of other implementing components.

The implementing components of the Kartu Tani Program consist of the Department of Agriculture and Food Security, the Department of Trade, distributors, KPL, PPL, BRI Bank, and farmers. Each component has its duties and responsibilities. In this case, the Department of Trade is responsible for distributors and KPL. The Department of Agriculture and Food Security implements the Kartu Tani Program in Banyumas Regency and oversees the PPL in every BPP in the sub-district. BRI Bank is a third party that provides EDC machines for transactions using the Kartu Tani. The performance of the Department of Agriculture and Food Security of Banyumas Regency is considered good, responsive, cooperative, solutive, and firm. It quickly responds to various complaints and obstacles, provides solutions to existing problems, conducts counseling and monitoring in each sub-district, and several strategies to overcome difficulties. The Department of Trade, which oversees the distributor and KPL, is responsible for the performance of the distributor and KPL. If there is a violation, then the one who takes over the settlement is the Department of Trade. Distributors and KPL cooperate in fulfilling

fertilizer needs for farmers. KPL coordinates with the distributor if the supply of fertilizer is running low. According to several KPL owners, the distributor's performance is good, tends to be responsive and firm, and distributors do not hesitate to release their KPL status if the KPL is proven to have committed a violation.

Several farmers think that KPL's performance varies. Some KPLs are disciplined and cooperative. Disciplined and collaborative KPLs carry out transaction services for purchasing subsidized fertilizers according to operating hours, meaning discipline in service time. They also sell subsidized fertilizer according to HET and only buy it using the Kartu Tani. Meanwhile, the undisciplined KPLs who carry out transaction services will sometimes sell subsidized fertilizers above the HET and even serve the purchase of subsidized fertilizers without using a Kartu Tani. The following is HET data determined based on the Regulation of the Minister of Agriculture Number 1 of 2020.

Table 2
HET subsidized fertilizer

No.	Types of subsidized fertilizers	HET
1	Urea	IDR 1,800/kg
2	SP-36	IDR 2,000/kg
3	ZA	IDR 1,400/kg
4	NPK	IDR 2,300/kg
5	NPK Specific formula	IDR 3,000/kg
6	Organic	IDR 500/kg

Source: The Regulation of the Minister of Agriculture Number 1 of 2020.

The HET above should be a guideline in setting subsidized fertilizer prices for KPL to create a uniform selling price. The KPL party like this will be processed and removed from the KPL status by the Department of Trade. The third-party Kartu Tani, namely BRI Bank, is often in the spotlight of farmers and the Department of Agriculture. BRI is considered less responsive and lacks coordination with the Department of Agriculture and PPLs in the sub-districts. Responses to complaints regarding system problems and cards are not quick, so many farmers have registered for Kartu Tani. However, they have not been able to transact using Kartu Tani because the card still has problems. According to the Head of the Kartu Tani Section of the Banyumas Regency Agriculture and Food Security Service, Mrs. Pratiwi, the BRI lacked coordination regarding the printing of the Kartu Tani. The office has often asked for data regarding the number of printed Kartu Tani, the problematic Kartu Tani, but the response from BRI is considered unsatisfactory. They tend to pass the task to another person in charge. It is also due to the absence

of a teller or customer service that handles explicitly and serves Kartu Tani. In other words, Kartu Tani services are still combined with general banking services.

The advantages and disadvantages of incompetent parties' performance have caused several obstacles in implementing the Kartu Tani Program in Banyumas Regency. However, under the existing mechanism, it cannot be denied that there are still obstacles to implementing the Kartu Tani Program. These obstacles and constraints come from various components of implementing Kartu Tani.

Several obstacles come from farmers during the Kartu Tani implementation. The constraints are, first, the perceptions of farmers who are afraid to use the Kartu Tani. Farmers tend to be scared to do banking-related activities. Their lousy perception of the Kartu Tani, which resembles an ATM debit card, has caused many farmers to be reluctant to register for the Kartu Tani at the beginning of the implementation. Second, the attitude of farmers who are less obedient. Some unscrupulous farmers abuse the existence of this Kartu Tani facility for personal gain. A farmer group also coordinates the Kartu Tani of its members. In a transaction, the farmer group uses more than one time Kartu Tani belonging to its members. The third is the use of Kartu Tani for auto debit. Auto debit is a payment system that automatically reduces the balance in the account due to transactions made by customers. This automatic reduction in harmony does not happen immediately, but there has been a prior agreement between the bank and the customer (Lifepal.co.id, 2022). With the use of the Kartu Tani for auto debit, the balance entered into the Kartu Tani is constantly drained for the debit installments. So that the Kartu Tani cannot be used for subsidized fertilizer redemption transactions.

There are several obstacles in implementing the Kartu Tani Program originating from KPL. These obstacles include the first, the far distance of the fertilizer kiosk. Some farmers complain that the KPL is quite far from their settlement. It impacts the additional transportation costs for a single purchase of fertilizer. The remote location also causes some farmers to choose to redeem fertilizer with a one-time-many redemption system. Still, this method clearly cannot be done considering the quota recorded on the Kartu Tani, the percentage that shows how much the redeemed fertilizer quota is. Second is the distributor's fertilizer delay because many farmers buy non-subsidized fertilizers at high costs. The distributor was late sending subsidized fertilizer supplies to KPL due to an error in the dashboard. It is usually due to a mistake in the EDC system that did not input data related to Kartu Tani

conducting transactions. In the EDC system, there was no reduction in fertilizer quota due to trades, but there is a reduction at the kiosk, transactions occur, and fertilizer. Third, there are KPL elements that sell subsidized fertilizers above the HET. It is detrimental to farmers because several KPL elements sell subsidized fertilizer above the HET for service fees. That is an act of breaking the rules. In this case, the Department of Agriculture and the Department of Trade immediately followed up and gave sanctions to the KPL concerned.

An error also causes constraints in the mechanism of the Kartu Tani support system. These obstacles include the different card numbers from the printed and the BRI system because an empty quota on the card is concerned cannot be used for transactions to purchase subsidized fertilizers. Second, the swapped NIK (ID number) system. The database of Kartu Tani is NIK. However, several farmers with the same name have different NIK. It often causes the NIK on the card to be confused with the one in the system. Third, the fertilizer quota is not complete. The quota recorded in the Kartu Tani is the application allocation quota registered in the eRDKK. In contrast, the fertilizer quota issued by the government is not based on the percentage but on the government's ability to provide fertilizer subsidies to farmers. It is often a debate among farmers and the KPL.

The Obstacles that arise from BRI Bank include problems with the EDC machine. The EDC machine is a BRI Electronic Data Capture machine placed at retailers. It can function to perform all banking transactions in general (Jatengprov.go.id, 2017). Some EDC machines cannot capture providers for transactions, and the signal provider is weak.

These obstacles also led to several complaints regarding implementing the Kartu Tani in Banyumas Regency. Based on the results of an interview with the Head of the Kartu Tani Section of the Banyumas Regency Agriculture and Food Security Service, Mrs. Pratiwi, most of the complaints came from individual farmers.

The complaints were entered into the Banyumas Regency complaint hotline to follow up by the Banyumas Regency Agriculture and Food Security Service in coordination with all parties involved in implementing the Kartu Tani.

Strategies for optimizing the subsidized fertilizers distribution by using the Kartu Tani in Banyumas Regency

Before discussing the strategy carried out by the Department of Agriculture, several suggestions exist for implementing the Kartu Tani. From the interview

and observation results, farmers and PPLs advised that the government should simplify the implementation mechanism of the Kartu Tani program from registration to the printing card process. For most farmers are difficult to register and print cards. Most are reluctant to come to the bank and care for the Kartu Tani because the mechanism is complicated. The District PPL also objected to the agency for collecting data on farmers participating in the Kartu Tani registration of the Kartu Tani. The frequent changes in the data input mechanism to the system are one of the reasons for PPLs in the sub-district. The opened plan occasionally causes an accumulation of farmer data and adds to the number of farmers who have not used the Kartu Tani. Kartu Tani printing at BRI Bank is also often a problem because there is no data on how many printed cards. So, improving and simplifying the flow of registration and printing of Kartu Tani is necessary.

The subsidized fertilizer quota recorded on the Kartu Tani and the percentage issued by the government is different. The sponsored fertilizer quota registered in the Kartu Tani is the allocation quota proposed through farmer groups and recorded in the eRDKK. Meanwhile, the percentage issued by the government is based on the government's ability to provide fertilizer subsidies to farmers. It causes misunderstanding among farmers. As a suggestion, it is better if the quota listed in the Kartu Tani depends on the government, not the percentage allocated in the eRDKK, to minimize misunderstandings among farmers.

The sub-district PPL is also essential in implementing the Kartu Tani Program. From recapitulating farmer group data to inputting farmer data into the Agricultural Extension Management Information System (Simluhtan), the SIMPI, and eRDKK to monitoring and updating the eRDKK data every month by PPL. Each sub-district consists of five to six PPL officers located in the BPP office in every District Office. The number of PPLs is minimal and inefficient in reaching all village areas in each sub-district. For example, one PPL is responsible for four to five villages in his sub-district. Not to mention the distance from one village to another, which is not always close. PPL officers must be able to foster, supervise and assist farmer groups in the village they are responsible. One of the PPL officers in Patikraja Sub-district, Mrs. Lily Setyo Prasanthi, STP, stated that they lacked PPL personnel. The number of PPL members at this time is minimal, with the burden of their main tasks and functions being so many. It will relate to the Department of Agriculture and Food Security of Banyumas Regency to consider proposals for the addition of PPL officers in the sub-district.

According to the Sub-District Head of Patikraja, Mr. Drs. Lendra Yuspi, M.Si, the Kartu Tani implementation has been very good. It would be nice if irresponsible people did not politicize the program. Implementing the Kartu Tani Program must provide convenience and facilities for farmers to buy subsidized fertilizers and obtain bank loans for their agricultural capital.

The Kartu Tani Programs are straightforward for farmers to buy subsidized fertilizers. However, a few farmers have requested that the Kartu Tani can also be used to sell their agricultural products. The farmers also want a market for farm products supervised and managed directly by the Department of Agriculture and Food Security so that there will be no more middlemen playing with meager costs.

The Head of the Department of Agriculture and Food Security of Banyumas Regency, Mr. Jaka Budi Santosa, also advised the government to reduce the provision of fertilizer subsidies. It is an effort to reduce the use of chemical fertilizers to shift the use from chemical fertilizers to organic fertilizers. According to him, the use of chemical fertilizers is not entirely good, maybe the impact is not visible now, but in the next 20 to 30 years, the soil balance will be very disturbed. Mr. Jaka added that the government reduced fertilizer subsidies to finance training in organic fertilizer production for farmers so that farmers can find safe and environmentally friendly fertilizer solutions for their agricultural processes. Besides that, BRI Bank must support all suggestions to maximize the function of the EDC machine to perform all banking transactions and improve its provider.

Based on some of the suggestions from the community above, the Banyumas Regency Government, through the Banyumas Regency Agriculture and Food Security Service, carried out several strategies to optimize this program. These strategies include:

- a) Require all farmers in Banyumas Regency to use the Kartu Tani in transactions to purchase subsidized fertilizers.
- b) There is no tolerance for any farmer who buys subsidized fertilizer without using a Kartu Tani.
- c) Provide strict sanctions for violators of the Kartu Tani program policy.
- d) Provide several alternatives in the mechanism for implementing the Kartu Tani Program. These alternatives include:
 - Cultivators can register for a Kartu Tani by submitting a certificate of cultivation and obtaining permission

from the agricultural land elector, provided the unreported farmland.

- To anticipate the loss of Kartu Tani for elderly farmers, Kartu Tani can be entrusted to farmer groups with a note that there is an official report on fertilizer collectively.
 - Farmers who do not have a savings balance in their Kartu Tani account can still carry out transactions to purchase subsidized fertilizers using cash. The trick is to provide BRILink in every KPL.
 - Farmers who have excess fertilizer quotas (have a remaining percentage from their land) give other farmers who lack subsidized fertilizers, provided that there is an agreement between both parties and it is not misused.
 - Farmers who lack capital for farming can apply for KUR (People's Business Credit) to BRI Bank, provided the farmer has registered and has a Kartu Tani.
 - The printed Kartu Tani is collectively based on registration batches distributed through the respective sub-district PPL officers based on The policies mechanism of each PPL. That way, farmers do not need to come to BRI Bank.
- e) The Department of Agriculture and Food Security of Banyumas Regency seeks to maximize the use of Farmer Cards by accelerating the distribution and use of Kartu Tani with the assistance of PPL officers in each sub-district.
 - f) Provide socialization, counseling, assistance, and supervision during the implementation of the Kartu Tani Program.
 - g) Be alert and responsive to complaints and problems in implementing the Kartu Tani Program.
 - h) Improve coordination between the implementing parties of the Kartu Tani Program with the establishment of the KPPP (Fertilizer and Pesticide Supervision Commission), in which all component implementers, the police, and the prosecutor's office oversee this program.
 - i) Forming Millennial farmer groups to campaign for the Kartu Tani Program and provide education on farm Millennials.

- j) Provide education to all farmers to start switching to using organic fertilizers.

IV. CONCLUSION

Banyumas Regency has implemented the Kartu Tani since 2017 but has not yet fully paid for subsidized fertilizers. There is still tolerance from the Department of Agriculture and Food Security of Banyumas Regency for farmers who do not have a Kartu Tani to be able to buy subsidized fertilizer without a Kartu Tani. However, as of September 1, 2020, Banyumas Regency has required using the Kartu Tani for transactions to purchase subsidized fertilizers. It has been implemented until 100 percent. So farmers who do not have a Kartu Tani cannot buy subsidized fertilizers. Implementing the Kartu Tani Program in Banyumas Regency is under the existing mechanism. However, there are still some obstacles in the implementation, both in terms of systems, farmers, KPLs, and distributors, as well as third parties, namely BRI Bank.

Many complaints regarding the Kartu Tani entered into the Banyumas Regency complaint hotline, but most of these complaints can be resolved. To optimize this program, the Department of Agriculture and Food Security of Banyumas Regency seeks to maximize the use of Kartu Tani by distributing and using Kartu Tani with the help of PPL officers in each sub-district. However, its implementation in Banyumas Regency is still focused on using 100 percent of the Kartu Tani and accelerating fertilizer absorption. Hopefully, The Kartu Tani in Banyumas Regency will also be used to sell agricultural products.

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