

Implementation of Lumbung Mataraman to Support Family Food Resilience in Kulon Progo Regency

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Abstract. This research aims to evaluate the implementation of the Lumbung Mataraman program, an initiative by the Daerah Istimewa Yogyakarta government, in enhancing family food resilience in Kulon Progo Regency. Targeted at women farmer groups, the program encourages the use of yard land for cultivating various horticultural crops and livestock as part of community empowerment. A qualitative approach was employed to analyze the program's processes, including planning, implementation, monitoring, and evaluation. The study highlights that the program's success is influenced by key aspects such as the interests of involved actors, benefits, decision-making roles, and available resources. Additionally, the contextual factors, such as power dynamics, institutional characteristics, and stakeholder compliance, significantly contribute to the program's effectiveness. The results reveal that Lumbung Mataraman successfully supports food resilience by empowering women farmers to utilize their yards for cultivation, thereby improving their ability to meet family food consumption needs. However, there is a need to further examine the long-term sustainability and scalability of the program. The study's findings suggest that replicating similar community-based empowerment programs could improve food security in rural areas. Future policies should focus on enhancing support for such initiatives to foster greater agricultural productivity and food resilience in the region. **Keywords:** Lumbung Mataraman, Women Farmers, Food Resilience

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1 Introduction

Indonesia is a region that has the potential to develop agriculture so that it can help realize family food resilience. Food is a basic need for human survival. Every resident has the right to receive adequate food so that it will create quality individuals. The population of Indonesia has increased from year to year. Based on data from BPS 2024 [1], it is known that the population of Indonesia in 2022 will be 275.773 million people, in 2023 it will be 278.696 million people, while in 2024 it will reach 281.603 million people. Indonesia's relatively large population can be a strength to utilize its natural potential so that the economy increases.

Food, which is a human right, always receives attention from all parties, including the government, private sector and society. Any substance consumed to provide nutritional support to the body is referred to as food. It is vital to human beings because it provides us with energy and allows us to develop and grow [2]. High quality food can be obtained with sustainable agriculture. Sustainable agriculture is essential for achieving food security and reducing poverty [3]. The Lumbung Mataraman program exists as a program launched by the Yogyakarta Special Region government. Lumbung Mataraman is a living food barn that is capable of producing and storing garden produce to be used as a source of family food consumption. This program is implemented with the support of special funds which are financial resources from the wealth of Sultan Hamengkubuwono (King of the Sultanate or Governor of the Daerah Istimewa Yogyakarta) and Kadipaten Pakualaman. These special funds are regulated in the Yogyakarta Special Region (DIY) Special Law.

The Lumbung Mataraman program is implemented throughout the Yogyakarta region. The target of the Lumbung Mataraman is women farmers group. Lumbung Mataraman not only increases food availability but also supports household-scale food resilience. [4] In agri-food systems, resilience is manifest over multiple spatial scales. Most agro-ecologists focus on crop and livestock production at small, for example field, scales, but resilience of food production should also consider the farm, regional and global scales

Kulon Progo Regency is one of the implementers of the Lumbung Mataraman program activities. Women farmer who are members of the women farmers group receive facilities of Lumbung Mataraman program in the form of seeds, seedlings, facilities and infrastructure, village nursery equipment, chickens and fishes. The implementation of a program certainly does not run completely smoothly. This could be because people need to adapt in getting to know the program. Innovations embedded in programs are not always adopted quickly by society. Location conditions related to natural resources also have an influence on the smooth running of these activities. Implementation of lumbung mataraman includes all activities carried out during the Lumbung Mataraman program, which of course experiences many ups and downs both in terms of human resources, natural resources, and related parties or stakeholders. [5] The implementation indicates that welfare gains are associated with policy measures in rural area.

Implementation according to the theory of Merilee S. Grindle consists of two major variables that influence the implementation process and results, namely policy content and implementation context. The characteristic of implementing this policy is the interaction between policy makers, policy implementers, and policy users in an interactive model. There are two variables that influence the implementation of public policies where both of these variables can be parameters of the success of implementing a policy [6]. In implementation there is a phase where knowledge is co-produced and project results are communicated, disseminated and utilized by the target group [7]. Lumbung Mataraman is clear evidence of the synergy between the government and the community which can have a positive impact

in creating family food resilience. Based on this background, this research aims to examine the implementation of the Lumbung Mataraman in supporting family food resilience in Kulon Progo Regency.

2 Methods

This research was conducted using a qualitative approach with case studies. Qualitative methods are a means for understanding subjective phenomena, with developing concepts and theories, and moving knowledge from the lay arena to the scientific [8]. Meanwhile, case study is a research strategy, and not just a method/technique/process of data collection. A case study involves a detailed study of the concerned unit of analysis within its natural setting. A de-contextualised study has no relevance in a case study research [9]. The research location was determined purposively with the consideration that the location was implementing the Lumbung Mataraman program. The research was conducted in Kulon Progo Regency. Research informants were determined using purposive sampling with the consideration that the person was considered to know the most about the information required. Informants consisted of government officials, extension workers, members of women's farmer groups and heads of women's farmer groups. Data collection was carried out using observation techniques, in-dept interviews, and recording. [10] Observations may be influenced by observer subjectivity, selective attention, and the observer effect. [11] An in-depth interview is a qualitative research technique that is used to conduct detailed interviews with a small number of participants. The qualitative data analysis method was carried out using the Miles and Huberman interactive analysis model by reducing data, presenting data, and drawing conclusions.

3 Results And Discussion

Policy implementation is in principle a way for a policy to achieve its goals. The lumbung mataraman is a policy regarding live food barns based on household yards. The purpose of the lumbung mataraman according to Department of Agriculture and Food Kulon Progo Regency in the technical instructions of the lumbung mataraman includes the following:

- a. Realizing lumbung mataraman to fulfill the food and nutrition needs of families and communities in a sustainable manner through integrated agricultural cultivation based on household yard land,
- b. Developing seed sources to maintain the sustainability of yard land utilization and preserving local food crops
- c. Helping to overcome the problem of food insecurity and poverty.

The implementation of the lumbung mataraman can be described through activities that will be grouped into two aspects according to MS Grindle, namely the content of policy and the context of implementation.

3.1 Implementation of the Contents of the Mataraman Lumbung Policy to Support Family Food Resilience

3.1.1 Influential Interests

Interests that influence Lumbung Mataraman policy can be understood as how related parties can influence policy implementation. The parties involved in Lumbung Mataraman are the government and target groups. The government consists of the provincial government of Yogyakarta Special Region, Department of Agriculture and Food Kulon Progo Regency, the Agricultural Extension Center at the sub-district level, and the women farmer group.

The provincial government of Yogyakarta Special Region has an interest in supporting the development and welfare of the community through lumbung mataraman. Department of Agriculture and Food Kulon Progo Regency has an interest in carrying out its duties to assist the Governor in government affairs in the agriculture and food sector. In this case, the department has the authority to distribute the privilege funds to the target groups through the Agricultural Extension Center.

The Agricultural Extension Center has an interest as a data center for information about the women farmers group that are eligible and ready to receive the lumbung mataraman facility. Agricultural extension worker always act as facilitators for farmers in the local area to learn about agriculture. Meanwhile, the women farmer group has an interest as a target group that receives benefits from the lumbung mataraman activity.

The interests between related parties can be carried out well without any conflict. The harmony between the government and target groups can make the process of implementing the lumbung mataraman policy easier. The target group feels comfortable in carrying out lumbung mataraman activities because the parties involved facilitate their needs.

3.1.2 Type of Benefit

The types of benefits are benefits received by the government and the target group of Lumbung Mataraman. One of the successes of policy implementation is influenced by this type of benefit. The benefits in a policy will have a positive impact on the government and target groups. The government as the policy maker must also feel the positive impact of the policies implemented. The benefits felt by the government include the distribution of privilege funds to help the community become more prosperous. The existence of lumbung mataraman has made the Department of Agriculture and Food Kulon Progo Regency more thorough in mapping the conditions of the region and women farmer. The Agricultural Extension Center feels the benefits that community empowerment, especially in women farmer groups, can be carried out to develop their potential. The benefits felt by women farmer group include the ability to manage yards, improve skills in cultivating horticultural crops, livestock and fisheries, being able to create a living food barn to family food needs.

3.1.3 Degree of Change Desired

Lumbung Mataraman has goals to achieve. This policy is designed to be easily implemented so that the expected changes occur. The changes desired by the government are that women farmer are able to provide the food and nutritional needs of their families, are able to carry out the sustainability of yard utilization, and are able to help their families from food shortages and poverty. Based on the results of the study, the women farmer group became aware and skilled in optimizing the utilization of the yard. The women farmer group have easy access to information, assistance with seeds and seedlings, as well as tools and facilities to cultivate for adequate family nutrition. [12] In addition, the remaining harvest will be sold so that it can increase the income of women farmers.

3.1.4 Position of Decision Making

The decision-making position in the Lumbung Mataraman policy lies in the hands of the Department of Agriculture and Food Kulon Progo Regency. The department determines the targets, namely women farmer group with certain criteria. The criteria for receiving the lumbung mataraman program include women farmer group that have a certificate of registration by the Kulon Progo Regency Government, have clear management, hold regular group meetings, have cooperation in managing yard utilization activities, and others. Centralized decision making in the Department of Agriculture and Food makes it easier to implement the lumbung mataraman.

3.1.5 Program Implementers

One of the determinants of the failure or success of policy implementation is the implementers/executors. Implementers who have strong capabilities and commitments will certainly succeed [13]. The program implementers in question are the parties who carry out activities for the success of Lumbung Mataraman. The program implementers must have competence for the successful implementation of the lumbung mataraman. The implementers of the lumbung mataraman implementation are the Department of Agriculture and Food Kulon Progo Regency, the Agricultural Extension Center at the sub-district level, and the women farmer group. Implementers at the district level are tasked with coordination, identification, verification and selection of prospective recipients and locations. Monitoring, evaluation and reporting on the implementation of the lumbung mataraman is also carried out by the district level. The task of the sub-district level agricultural extension office is to provide assistance. The task of the women farmer group is to manage and develop the lumbung mataraman, record the results of yard utilization activities, and report the condition of the lumbung mataraman activities regularly every month and at the end of the year.

3.1.6 Resources Involved

Resources involved in policy implementation must be supported with adequate resources so that the implementation objectives can be achieved. The resources involved in the lumbung mataraman are extension workers and women farmer. The resources that have been available are sufficient to implement the lumbung mataraman. This can be proven by the implementation of the lumbung mataraman which has been carried out for 3 consecutive years. During this period, the resources involved have tried to coordinate and cooperate in order to create household food resilience. The facilities provided by the government are used as best as possible to manage the yard. The management of the yard is successful, as evidenced by the beautiful yard planted with various vegetables, fruits, and livestock and fish cultivation. The results of the yard can be used to provide family consumption needs. [14]Therefore, it is important to do about policy framework needs to be developed in which the sustainability of production/consumption patterns becomes central.

3.2 The context of implementing Lumbung Mataraman to Support Family Food Resilience

3.2.1 Power, Interests and Strategies of the Actors Involved

The power and interests of the parties involved in implementation will determine the success of a policy. Lumbung Mataraman is a policy whose power is centralized in the government of the Special Region of Yogyakarta. The government, as the giver of the privilege funds, has the power over how long this facilitation will be provided. Lumbung Mataraman is implemented with the concept of empowerment so that the target group is expected to be empowered and independent. This independence is a manifestation of the target group not depending on the facilitation from the government. Learning activities in the women farmer group are well conceptualized with the cooperation of extension workers and targets. Yard land that was previously unused, now becomes neatly organized land and can be called a living food barn for each household. Just like the government provides facilitation, in this case the extension worker as a facilitator must create power in the women farmer group so that they are independent. Independent here is defined as being able to manage the yard, solve problems, and maintain sustainability without depending on agricultural extension workers. [15] Efforts need to be directed and interventions carried out at the policy and program level that must support access to extension services.

3.2.2 Characteristics of Ruling Institutions

The characteristics of the ruling institution show the characteristics can influence the successful implementation of the lumbung mataraman. In this lumbung mataraman policy, it can be seen that the Yogyakarta Special Region Government has the power and authority in making decisions to implement lumbung mataraman throughout its territory. This decision-making is within one scope, namely the government. This makes it easy to implement the lumbung mataraman. The structure of the ruling institution that assigns tasks to the Department of Agriculture and Food Kulon Progo Regency and the agricultural extension center in the sub-district is not complex. The organizational structure is simple because coordination between the government and the extension workers can be done easily. There were no obstacles to communication between extension workers and women's farmer groups so that the implementation of the lumbung mataraman could be carried out smoothly. The administration of the women farmer groups is also assisted by agricultural extension workers. This shows that there is good coordination and communication between the two.

3.2.3 Level of Compliance and Responsiveness

The level of compliance and responsiveness is the extent to which implementers and target groups respond to a policy. Lumbung mataraman will get a positive response when the activities carried out are considered beneficial for the women farmer group. The suitability between the government's design and the needs of the women farmer group affects the success of a policy implementation. Women farmer group need knowledge and skills in managing their yards to be used as living food barns. The desire to manage the yard emerged after going through a process of continuous approaches from agricultural extension worker. At first, the women farmers were afraid of failure and the inability to take care of the yard. Over time, the women farmer group responded to the lumbung mataraman as a good program that would be beneficial for themselves and their families. They obey the advice of agricultural extension workers, so that the yard has become a source of family food. The women farmer group also have good responsiveness in various activities ranging from land preparation, seed sowing, planting, maintenance, harvesting, to processing for their own

consumption. Compliance and responsiveness from implementers and target groups can make the implementation of Lumbung Mataraman easy.

4 Conclusion

Lumbung Mataraman is a policy of the Yogyakarta Special Region Government to create a living food barn in the yard of every family. Based on the policy content and implementation context, Lumbung Mataraman can be easily implemented. The implementation of Lumbung Mataraman involves both government and women farmer groups. The extension worker as the government's task manager plays an important role in the implementation of the lumbung mataraman. Women farmer groups also play a role in the successful implementation of lumbung mataraman. Based on the aspects of policy content consisting of influential interests, type of benefits, degree of change desired, position of decision making, program implementers, resources involved, everything has been running as it should. Similarly, the context of implementation, which includes the power, interests and strategies of the actors involved, characteristics of ruling institutions, and the level of compliance and responsiveness, has been done well. The implementation of lumbung mataraman has proven to support family food resilience. This can be seen from women farmer being able to realize the fulfillment of food needs from their respective yards. Improved coordination and communication between the government, extension workers, and women farmer groups need to be maintained and improved so that the lumbung mataraman activities can be sustainable. This sustainability is something that is expected so that the community can continue to have the ability to manage the yard to provide their daily consumption needs.

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