

Evaluation of Banana Seed Distribution in the "Nagari Mandiri Pangan" Program in Padang Pariaman Regency, West Sumatra

Evaluasi Distribusi Benih Pisang dalam Program "Nagari Mandiri Pangan" di Kabupaten Padang Pariaman, Sumatera Barat

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ABSTRACT

The purpose of this study is to evaluate the distribution of bananas in the Nagari Mandiri Pangan Program in Padang Pariaman Regency, West Sumatra. Nagari Mandiri Pangan is a program implemented by the West Sumatra government. This program is an adaptation of the Desa Mandiri Pangan launched by the Food Security Agency of the Ministry of Agriculture (BKP) at the national level. The West Sumatra Government is trying to explore the needs of the farmers themselves. In this case, farmers who are in the group ask to be given banana seed assistance, which is a commodity that has the potential to be developed. This research was carried out on five farmer groups in Padang Pariaman Regency. The method used is an interview using a questionnaire, which is then analyzed using descriptive statistics. The existing results are compared with the technical guidelines and implementation guidelines that have been prepared. From the results, it was found that the distribution of banana seeds was carried out during the current year, and the requests from farmer groups could be accommodated through this program. Banana plants were chosen because this commodity has suitable growing conditions at the research site. Farmers are obliged to provide land that is used from existing vacant land and land that was previously unused. In addition, farmers are obliged to maintain bananas that have been given properly and provide periodic reporting. To ensure that farmers carry out their obligations, the agency evaluates by visiting and providing assistance with good banana cultivation methods in collaboration with local extension workers.

Keywords: Banana; Farmer Empowerment; Nagari Mandiri Pangan; Vacant Land Utilization

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengevaluasi penyaluran pisang pada Program Nagari Mandiri Pangan di Kabupaten Padang Pariaman, Sumatera Barat. Nagari Mandiri Pangan merupakan program yang dilaksanakan oleh pemerintah Sumatera Barat. Program ini merupakan adaptasi dari Desa Mandiri Pangan yang dicanangkan oleh Badan Ketahanan Pangan Kementerian Pertanian (BKP) di tingkat nasional. Pemerintah Sumatera Barat berupaya mengeksplorasi kebutuhan para petani itu sendiri. Dalam hal ini, petani yang tergabung dalam kelompok meminta untuk diberikan bantuan bibit pisang yang merupakan komoditas yang berpotensi untuk dikembangkan. Penelitian ini dilakukan pada 5 kelompok tani di Kabupaten Padang Pariaman. Metode yang digunakan adalah wawancara menggunakan kuesioner dan kemudian dianalisis menggunakan statistik deskriptif, hasil yang ada dibandingkan dengan pedoman teknis dan pedoman implementasi yang telah disusun. Dari hasil tersebut, ditemukan bahwa pembagian benih pisang dilakukan selama tahun berjalan dan permintaan dari kelompok tani dapat diakomodasi melalui program ini. Tanaman pisang dipilih karena komoditas ini memiliki kondisi pertumbuhan yang sesuai di lokasi penelitian. Petani wajib menyediakan lahan yang dimanfaatkan dari lahan kosong yang ada dan lahan yang sebelumnya tidak terpakai. Selain itu, petani wajib memelihara pisang yang telah diberikan dengan baik dan memberikan pelaporan secara berkala. Untuk memastikan petani menjalankan kewajibannya, lembaga tersebut melakukan evaluasi dengan mengunjungi dan juga memberikan pendampingan metode budidaya pisang yang baik bekerja sama dengan penyuluh setempat.

Kata Kunci: Bibit Pisang; Pemberdayaan Petani; Pemanfaatan Lahan Kosong; Program Nagari Mandiri Pangan

1. Introduction

The “Nagari Mandiri Pangan” program is a modification of the “Desa Mandiri Pangan” program launched by the central government in 2006. This program is region-specific due to the peculiarity of the government structure in West Sumatra, which is based on “Nagari.” “Nagari” itself can be defined as the lowest regional government structure in West Sumatra that takes into account the existence of tribes, tribes, and local customs. The basis of this activity is to use the concept of community empowerment applied to areas that are indicated to be food insecure, which is carried out by involving various agencies and related stakeholders. Many factors affect

an area that is food-resistant or vulnerable, including the age of the head of the family, family income, and the area of land cultivated by the family. The higher the family income, the more positively it will be related to food independence. (Sabaora et al., 2020).

The definition of a Nagari that is referred to as a “Nagari Mandiri Pangan” is if the Nagari has an empowered community and can create food security and nutrition in its area, which can be realized through the development of subsystems, namely related to the availability, distribution, and consumption that uses local resources and does not forget to consider the principle of sustainability which is adjusted to the potential and peculiarities as well as the specifics of the location. It can be further explained that this program was initiated with the aim of encouraging and empowering the local community so that they can be able to provide themselves with the community’s own needs for food by using and utilizing local resources that come from local resources themselves. The more diverse the types of food consumed are eaten, the more independent a household will be (Saputro & Fidayani, 2020). On the other hand, the greater the family’s consumption of rice and not consuming other types of food, the more vulnerable households are to experience shocks when there is a change in the availability of rice. (Hafizah, Hakim, et al., 2020).

The “Nagari Mandiri Pangan” program is built based on several concepts, including building independence by utilizing local food. Local food is defined as a food source that is grown around consumers who will use the food. The use of local food will also empower the surrounding community and small businesses that have an environment so that they can improve their welfare (Hafizah et al., 2023). With businesses that come from their regions, independence will be created in the use of food. The amount of food consumed is sufficient because it does not depend on supplies outside the region. The distribution is relatively short because it is directly produced in the area concerned. Prices are also expected to be relatively low as they do not require long marketing channels. There are differences in the characteristics of rural and urban areas, so the government must consider this before taking a policy (Hafizah, Budiman Hakim, et al., 2020).

The second concept developed is to support the diversity in food consumption eaten by families. Where the more dependent a household is on consuming only one commodity, the more vulnerable the household will be to suffer from food insecurity. A slight disruption to the stock and quantity of the dominant commodity will have an impact on the availability of household food consumption. With the increasing variety of food eaten, it will be able to provide a choice of substitutes for commodities that can be consumed so that there is no excessive dependence on just one commodity.

In its development, the implementation of this program in various regions has varied results. The research conducted in the Barru Regency area, Tanete Riaja District, gave good results, and the two villages that were the research samples reached the stage of independence. (Marhaeti et al., 2022). However, some are inactive, and additional actions are needed to solve the existing problems (Darwis, 2012). This activity also encourages behavior to utilize the yard land around the house so that it can be used properly to meet the nutritional needs of the family (Setiawan & Wijayanti, 2019).

The provision of food in the region itself, which is the beginning of food security, is also based on how the natural resources in each “Nagari” can be used as well as possible. The community is encouraged to use yard land, which has not been used too much, to grow commodities that can be used to increase the type of food consumed further. In addition, there

is something unique from the concept of Nagari in the Minang Kabau tribe in West Sumatra, where the tribe owns customary land that can be used by all tribal members with the supervision of traditional elders. This concept will encourage the sustainable use of forests and land with the status of "customary land" and pay attention to its sustainability.

With the increasing role of the community in providing food, as well as in the use of surrounding resources, it is hoped that the community's economy will also be formed independently and is expected to develop, which will ultimately have an impact on improving people's welfare. For this reason, "Nagari" is prepared to form farmer groups, cooperatives, and business entities that can generate their income. It is hoped that all these facilities will be able to support the increase in local food commodity production and support the marketing of the products produced. Thus, it is important to select commodities to be developed that are adjusted to the conditions of the local area so that this program can be right on target (Banyuriatiga, 2023).

The determination of the criteria for the selected regions is by considering several factors, including 1) the high and low number of toddlers who are indicated to be stunted in an area, 2) looking at the number of households that are not supplied with electricity, 3) the availability of road facilities and infrastructure that connect one area with another area either by land or water, 4) the number of children who are still unable to read (illiterate), 5) The availability of household access in an area to be able to check themselves at health facilities at a distance of less than 5 km, 6) the percentage of households that are still below the poverty line, 7) how food is available in households, 8) how is the availability of clean water to meet household needs, and 9) the condition of many babies and toddlers who die and the death of mothers when they give birth.

Based on these criteria, the targets of this program in 2023 have been set as activity targets, namely five districts/cities: Pariaman Regency, Dharmasraya Regency, Sijunjung Regency, Solok Regency, and Tanah Datar Regency. This program involves all relevant stakeholders, such as food affairs management officers, accompanying extension workers in the "Nagari," local financial institutions, and local farmer groups. The purpose of this program will be the implementation of the empowerment of "Nagari" to be food independent, increase the participation of all agencies, the implementation of seed assistance, and motivate the community/farmers to increase sources of income. Each of the Nagari has different seed needs that are adjusted to the potential of the land and climate that is suitable for the growth and development of commodities. Padang Pariaman Regency, one of the areas that became Nagari Mandiri Pangan, received banana seed assistance.

Based on this, the purpose of this study is to evaluate the distribution of banana plants in the "Nagari Mandiri Pangan" program in Padang Pariaman Regency, West Sumatra.

2. Research Method

The research was carried out in Padang Pariaman Regency with the consideration that this area has the most farmer groups that are given banana seed assistance, namely five farmer groups. The method used is an interview using a questionnaire, which is then analyzed using descriptive statistics. The existing results are compared with the technical guidelines and implementation guidelines that have been prepared. Then, based on this, a conclusion was drawn on whether the goals of the implementation of this program had been achieved, whether they had been achieved, and what obstacles were encountered in the field. The types of data

used include primary data related to farmer data and secondary data obtained from related institutions.

3. Results and Discussion

The concept of food independence is related to the issue of how the community is empowered so that they can be stronger and more resistant to poverty and food insecure conditions. For this reason, community empowerment in the context of food independence is carried out through the empowerment of poor and food-insecure people in an area (Nagari). Food insecurity conditions are partly caused by prolonged poverty. The strategy implemented to empower the community can be carried out in two ways, namely (1) by building an agricultural and rural-based economy to provide jobs and increase income and (2) by providing food for poor groups in food-insecure areas through empowerment and direct assistance.

For the purpose of guiding the implementation of the program, technical instructions have been made that are used as a guide in carrying out activities. The existing technical instructions regulate several things, including those related to the scope and location of activities, as well as implementation methods and implementation mechanisms.

One of the “Nagari Mandiri Pangan” programs will be carried out in Padang Pariaman Regency in 2023. The scope of this activity is in the form of regional development activities and development of food-independent Nagari carried out by farmer groups appointed in Nagari as activity managers in collaboration with groups or communities around Nagari to develop the area with assistance by extension workers who act as companions appointed by the head of the agency that handles food in the district/city. The coaching is carried out in stages by the relevant regional apparatus work units in accordance with the work program of each regional work apparatus to develop the region (Nagari).

The implementation of the program is carried out through increased coordination with related cross-sectors to contribute to the country in accordance with the main tasks. It functions both through human resource development and goods assistance, as well as the role of stakeholders in each region. The focus of this program is to carry out guidance on the utilization of specific local commodities that have existed and developed in the Padang Pariaman area.

The implementation mechanism includes farmer groups that have received program assistance followed by plant development and maintenance, which has been a sustainable process from 2017 until now. For the needs of the year concerned, assistance will be directed to inserting and adding seedlings in accordance with the suitability of the agroclimate.

The Integrated Coaching Team will carry out the coaching process from provinces and regencies/cities, which is not limited to monitoring and evaluation of the field, monitoring and evaluation meetings, and mentoring and mentoring by district and field officers.

The desired results with the implementation of this program include 1) the development of productive business groups in Nagari, 2) Improving the ability of the community and farmers, especially in meeting the needs of food and family nutrition easily and cheaply all the time independently, 3) There is an increase in awareness, and community activity in realizing food availability at the household level and reducing dependence on one specific type of food commodity. 4) There is an increase in the participation of community groups in the provision of food sources and family nutrition through the optimization of land use as a producer of other food sources for family consumption, and 5) the development of location-specific food commodities in the region.

The benefits obtained are in the form of increasing the availability of community food in order to realize food security and the development of commodity production center areas that have their characteristics and become icons of the region.

Based on the existing technical instructions, research observations can be divided into several aspects:

1) Appointment of farmer groups to be given seed assistance

The selection of farmer groups to be provided with assistance is based on the consideration of proposals from the farmer group itself. Farmer groups that have been given assistance in the previous year cannot submit a proposal this year but can again submit a proposal next year (alternate interval). For farmer groups that submit proposals in the relevant year, they must meet several requirements, including:

- The head of the group has signed the proposal, the guardian of the Nagari, the extension worker in the Nagari.
- The minimum group has been established for two years.
- The number of active members is at least 13 people.
- The group already has a group establishment decree from the local Nagari.
- Registered in the Agricultural Extension System (SIMLUHTAN) of the Ministry of Agriculture, which is a database for all farmer groups in Indonesia.
- Has a planting location
- active groups that are proven to have regular meetings known to extension workers.
- Provide ID cards of the management from the chairman, secretary, and treasurer of the group.

Based on the requirements above, five farmer groups were obtained that met, namely:

- KWT Sejahtera has 25 members
- Tanjung River Farmers Group has 40 members
- Bukit Barisan 2 Farmers Group with 60 members
- Bungo Kayu Group has 20 members
- Kalawi Mekar Farmer Group has 36 members

2) Selection of the type of aid seeds

The seed assistance provided depends on the type of proposal requested by the group. The group proposes based on the needs desired by each member. However, the decision on whether the proposed proposal will be granted or not is made through consideration of recommendations from Nagari extension workers, who are considered to know the conditions of the location appropriately and adjust it to the agroclimatic conditions of the location. In addition, the seed assistance provided also considers the available budget.

Of the five farmer groups that submitted proposals, they actually proposed several types of seeds with varying amounts. The proposals submitted by the group can be seen in Table 1

Table 1. Proposal for Seed Request Submitted By the Group

No	Group Name	Number of Members	Seed Request
1	KWT Sejahtera	25	Durian, banana, mangosteen

No	Group Name	Number of Members	Seed Request
2	Tanjung River Keltan	40	Mangosteen, Avocado, Banana
3	Keltan Bukit Barisan II	60	Mangosteen, Avocado, Banana
4	Keltan Bungo Wood	20	Mangosteen, Avocado, Banana
5	Kalawi Keltan Blooms	36	Fruit crops

Based on the table, we can see that the requests proposed by farmer groups are for fruit crops such as mangosteen, durian, avocado, and banana. All of them are types of fruits that are of annual age, but what is granted is banana seed assistance with the consideration that among the demand for seedlings that produce the fastest are bananas with the first fruiting time at the age of 9 months, while other seedlings are relatively longer. Bananas do not require intensive care and are more knowledgeable about diseases (Halim et al., 2023).

The type of banana planted is a type of "goods" banana (Ambarita et al., 2015). This is in line with what was conveyed in previous research, which stated that bananas have many benefits and are suitable for planting in tropical climates such as Indonesia (Arifki & Barliana, 2019). In addition to being consumed directly, bananas can also be processed into various shapes and flavors (Rosariastuti et al., 2018). The same thing is also done in the processing of bananas after harvest (Fahroji, 2012). Post-harvest processing will increase the added value of bananas (Naton et al., 2020).

3) Number of aid seeds

The number of aid seeds is determined by considering the budget of the agency, in this case, the West Sumatra Provincial Food Service. The request for banana seedlings proposed by the group, along with the number of banana seeds granted, is presented in Table 2

Table 2. Number of Banana Seed Requests Submitted by Groups and Realization of Assistance

No	Group Name	Proposal (stem)	Realization (stem)
1	KWT Sejahtera	250	250
2	Tanjung River Keltan	1500	300
3	Keltan Bukit Barisan II	1000	250
4	Keltan Bungo Wood	1000	300
5	Kalawi Keltan Blooms	600	300

Based on Table 2, it can be seen that out of 5 groups, only 1 group is in line with the proposal and the realization of the assistance provided, but once the group realizes that the agency is experiencing limited funds.

The seeds obtained by the group are divided among all active members, and members are obliged to take good care of banana seeds. The banana seeds provided are provided by the agency that orders bananas with red goods from Medan, North Sumatra. These banana seeds are propagated using tissue culture. Propagation by tissue culture has several advantages, including not transmitting diseases that the mother may suffer, and the production of bananas

can be predicted, which is adjusted to the good quality of the mother that has been selected previously.

4) Supervision and Coaching

To ensure that the banana seed assistance provided will be properly cared for by the group, supervision and coaching from various stakeholders are necessary. Supervision and coaching are carried out in stages. The parties involved include:

a) Nagari Extension Officer

Extension workers are tasked with providing assistance related to banana cultivation. In addition to banana commodities, extension workers also assist other commodities cultivated by members of farmer groups. Nagari extension workers carry out weekly and monthly routine activities that gather all group members. This meeting will explore problems that farmers may be facing along with solutions that can be taken to solve them.

b) Padang Pariaman Regency Agriculture and Food Security Office

The Food and Agriculture Service at the district level is tasked with supervising farmers while still coordinating with Nagari Extension Officers. However, once in the field, due to the busyness and tasks carried out, field visits from the service are limited.

c) West Sumatra Provincial Food Service

The West Sumatra Provincial Food Service, as the party that implements the program, is obliged to carry out supervision related to the maintenance of banana seedlings that have been given. However, supervision and evaluation are very rarely carried out, including field visits. From 2023 to the end of 2024, the Provincial Food Service will carry out four visits, including verification, delivery of seeds, monitoring and evaluation, and coaching in the form of controlling the current condition of the seeds.

4. Conclusion

The “Nagari Pangan Mandiri” program is region-specific due to the peculiarity of the government structure in West Sumatra based on “Nagari.” The distribution of banana seeds is carried out during the current year, and requests from farmer groups can be accommodated through this program. Banana seeds were chosen because this commodity has suitable growing conditions at the research site. Farmers are obliged to provide land that is used from existing vacant land and sleeping land that was previously unused. In addition, farmers are obliged to maintain bananas that have been given properly and provide periodic reporting. To ensure that farmers carry out their obligations, the agency evaluates by visiting and providing assistance with good banana cultivation methods in collaboration with local extension workers.

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