



Analysis of Terrible Irrigation Rehabilitation Through Special Allocation Funds (Dak) in Agriculture in Nagari Maek in Lima Puluh Kota Districts

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Abstract

Tertiary irrigation rehabilitation is expected to be able to increase food sovereignty for food crops, especially rice. Special allocation funds in agriculture is expected to overcome the problems of the tertiary irrigation network that many to be rehabilitated. Objective is process of rehabilitation of tertiary DAK agriculture, identifying the impact of tertiary in charitable donations of food crops, as well as success factors tertiary rehabilitation of irrigation system in villages Maek. This study uses an observation method with a qualitative approach. The qualitative approach was used to understand in depth how farmer groups jointly rehabilitated tertiary irrigation networks in the Maek rural in Sopian Tanah jorong, Ampang Gadang I, Ampang Gadang II, Koto Tinggi I, Koto Tinggi II, Koto Tinggi III, Aurduri and Koto Gadang which became the object of research. While a qualitative approach is used to identify the impact of tertiary irrigation rehabilitation and analyze success. The impact of tertiary irrigation rehabilitation affects the irrigated area, the physical condition of the channel, the level of water sufficiency and cropping intensity . While Empowerment factors have been carried out in the implementation of rehabilitation through the participation of all communities including communities who are not members of farmer groups in carrying out rehabilitation work as well as the active participation and role of rural devices, especially guardians of villages Maek.

Keywords: Tertiary Irrigation; Networking; Participation; Community Empowerment.

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1. Introduction

Regional development is an integral part of national development. The success of national development is determined by the success of regional development through its processes. Performance of regional development will have an impact on the effort in order to reach a final destination and achievement of the ultimate goal of national development. Therefore, national development has the characteristics of being comprehensive, consistent, systematic, programmatic and sustainable [1]. The consistency of development in favor of the interests of the people, justice in law, and bureaucracy that consistently serves the people is a characteristic of good government. Good government is the goal of modern life [2].

Regional autonomy and fiscal decentralization give authority to regional governments to develop regional revenue potential and develop regional development priorities for accelerated development. With the authority they have, the local government is expected to be able to manage regional finance effectively and efficiently and accountably in realizing the development that is marked by economic growth and equitable development. The decentralization policy has at least important implications including community participation, resource management and institutions. Agricultural development which is divided into the development of food crops is inseparable from regional and national development. Agricultural development is a supporting pillar and development priority. The objectives to be achieved through tertiary irrigation development that will be achieved will lead to increased production, increased value added and product competitiveness and increased income and welfare of farmers. In its development, the service of horticulture and plantation crops acted as a driving force for agricultural development in tertiary irrigation development [3]. Guided by Undang – Undang Nomor 7 Tahun 2004 concerning water resources, central and local governments jointly provide the budget for the construction and rehabilitation of primary, secondary and tertiary irrigation networks as well as the budget for the operation and maintenance of each level of the irrigation network. To help local governments handle irrigation by debiting <1000 the central government allocates special allocation funds for central government purposes to enable local governments to increase productivity and agricultural production in supporting national food sovereignty. While the implementation of tertiary irrigation construction is the responsibility of farmers and can be assisted by the government and regional government [4]. One of the DAK recipient districts in agriculture is the Lima Puluh Kota districts. Specific Allocation Funds for agriculture for the Lima Puluh Kota Regency were distributed from 2011 to 2016 spread across 13 sub-districts. Of the 13 sub-districts in the Lima Puluh Kota district, Bukit Barisan Sub-District was drought-prone to 50 - 100 ha [5]. The construction of tertiary irrigation networks jointly funded by the central government and the government of the Lima Puluh Kota Regency were carried out by villages Maek farmer groups. With a model of collaboration between the central government, district government and farmer groups, a new irrigation network in the villages Maek was successfully built. Objectives are 1) to describe the process of implementation of irrigation development tertiary DAK agriculture in villages Maek, 2) to identifying the impact of tertiary in charitable donations of food crops in villages Maek, 3) to analyze success factors development network of tertiary in villages Maek. Benefits of research it is hoped that it can be useful for 1) Lima Puluh Kota district government, especially horticulture and plantation food crops that implement tertiary irrigation development through self-management of farmer groups can increase water availability continuously throughout the season to support food crop businesses, 2) Maek village government and farmer groups and communities play more active roles in development and encourage

the improvement of existing institutional capacity, 3) academically provide additional knowledge about participatory development planning which is the embodiment of decentralization and regional autonomy in the form of tertiary irrigation rehabilitation in self-management or theory in the science of development region/region especially in participatory development planning. Community participation will follow the flow in stages, from the first rung up the ladder to eight [6], with the following logic: a) the first time better known ignorance. Manipulation or abuse and the second ladder of therapy (repair) actually do not include participation. This means that community involvement in a program is merely an involvement that is not based on mental, psychological and also the consequences of participating in contributing to the program where the community is merely an object of an intervention program designed by the government. Government involving the community are given public support alone, b) antlers third known for the provision of information, the next fourth place known consulting and stairs to the five known, it serves to accommodate ideas, suggestions, feedback from the public, as absorbers public unrest. The third, fourth and hemisphere in this case is that the delivery of information is a form of business approach to the community with the aim of gaining public legitimacy, for all published programs. Unidirectional communication is not a form of discussion but top down communication. The occurrence of consultations in a meeting is a way to seek public interest and clarify public legitimacy, not really want to know public objections or get considered. The effort to becomes the fifth ladder. The third, fourth and fifth steps as if reflecting the community are given the opportunity to channel opinions, suggestions, objections, but these are only formalities. It is better known as the level of appreciation or formality, c) the sixth level as the ladder where the government partnership with the community occurs. Where people get space in a development program. Then there was delegation of authority from the government to the community on the seventh ladder. Better known as the level of power ladder in the community. Finally the community has been able to become a control, namely on the eighth ladder.

2. Methods

This study uses nonetnographic qualitative research methods based on unstructured interviews and in-depth interviews with various informants and document collection and brief observations [7] . This study studies the impact of tertiary irrigation rehabilitation so that data for the period 2013 to 2017 is needed.

3. Results and Discussion

3.1. Impact of Tertiary Irrigation Development DAK for Agriculture in villages Maek

The farmer group implemented the DAK in agriculture in villages Maek in 9 rural from the 12 rural in the villages .

In a rural Sopian Tanah 4 groups of peasants in a rural Koto Gadang there is one group of farmers, in rural Ronah there is one group of farmers, in rural Ampang Gadang I there are 2 farmer groups, in rural Ampang Gadang II, there are three groups of farmers, in rural Aurduri there is 1 farmer group, in rural Koto Tinggi I there are 3 farmer groups, in rural Koto Tinggi II there are 4 farmer groups, and in rural Koto Tinggi III there are 2 farmer groups.

Table 1: Implementing Farmer Groups and the villages Maek Irrigation Areas

The name of farmer group	Address Jorong	The name of Irrigation
Saiyo Sakato	Sopan Tanah	Irrigation areas Banda Panjang Banda Koto Tinggi 8
Cahaya Tani		Irrigation areas Banda Panjang Banda Koto Tinggi 8
Bundo Kandung	Aurduri	Irrigation areas Banda Panjang Banda Ronah 1
Beringin Jaya	Ampang Gadang 1	Irrigation areas Banda Panjang Banda Ronah 3
Maju Bersama		Irrigation areas Banda Panjang Banda Ronah 3
Karya Baru		Irrigation areas Banda Panjang Banda Ronah 3
Putri Mekar		Irrigation areas Banda Panjang Banda Ronah 3
Tunas Permata Jaya		Irrigation areas Banda Panjang Banda Ronah 3
Serumpun Jaya		Irrigation areas Banda Panjang Banda Ronah 3
Sungai Limau	Ampang Gadang 2	Irrigation areas Banda Banda Length Length 4
Lestari		Irrigation areas Banda Banda Length Length 4
Bandar Kubu		Irrigation areas Banda Panjang Banda Koto Tinggi 10
Mekar Ceria	Ronah	Irrigation areas Banda Panjang Banda Ronah 1
Kubu Baru Saiyo	Koto Tinggi 1	Irrigation areas Banda Panjang Banda Koto Tinggi 8
Patai Sabatang	Koto Tinggi 2	Irrigation areas Banda Banda Length 1
Kayu Cupang Saiyo		Irrigation areas Banda Banda Length 1
Embun Pagi		Irrigation areas Banda Banda Length 1
Wira Karya		Irrigation areas Banda Banda Length 1
Karya Bersama	Koto Tinggi 3	Irrigation areas Banda Banda Length 1
Bukik Posuak GP3A		Irrigation areas Banda Panjang Banda Koto Tinggi 1
Sepakat	Koto Gadang	Irrigation areas Banda Panjang Banda Ronah 3

From the results of interviews with farmer groups with tertiary irrigation rehabilitation impacts on irrigated area, level of water adequacy after tertiary irrigation rehabilitation , intensity of planting, physical condition of irrigation canals.

The majority of farmer groups that receive assistance are known to face obstacles in planning, economic, social and cultural factors. The condition of obstacles from economic and social factors shows that farmers experience problems and involve many people to complete work.

Table 2: Obstacle factor

The name of farmer group	Obstacle factor
Saiyo Sakato	-
Sepakat	-
Sungai Limau	-
Lestari	-
Bandar Kubu	-
Bundo Kanduang	planning is not appropriate
Patai Sabatang	economic, social
Kayu Cupang Saiyo	economic, social
Putri Mekar	social
Karya Baru	-
Mekar Ceria	-
Karya Bersama	-
Beringin Jaya	-
Maju Bersama	-
Kubu Baru Saiyo	-
GP3A Bukik Posuak	economic, social
Embun Pagi	economy, planning
Wira Karya	-
Tunas Permata Jaya	-
Serumpun Jaya	-
Cahaya Tani	-

3.2. Relationship between Community Empowerment and Irrigation Development

In implementing the construction of tertiary irrigation networks, farmer groups together with the community face several problems as described in the previous chapter. The following will discuss the ability of farmer groups to overcome problems, namely:

Economy ; As a result of the limited number and cost of funds in constructing tertiary channels to drain water to each community rice field, the length of permanent channels made is low, the low wage received by workers, far from using carts, is not budgeted for supporting activities such as farmer group meetings, costs administrative completeness, transportation costs in managing administrative completeness. Funds can only be used for payment of workers' wages and material purchases. The names of farmer groups and how they deal with problems are as follows:

a. Patai Sabatang farmer group

From the results of interviews with farmer group administrators that funds received by farmer groups amounted to Rp. 30,000,000, - can only build tertiary channels along 50 meters due to the location of swampy land. With this long achievement, it can only irrigate rice fields with less than 20 ha of community rice fields. Besides that, the materials were distributed as far as 150 meters to make it difficult for members of farmer groups to carry out their work. In this case through community participation and self-reliance, the participation of husbands working together and the role of field supervisors in directing the group when implementing activities is very helpful so that tertiary channels can be completed. Implementation of mutual cooperation 1 time a week continuously for 2 months and payment of wages to only one person for the participation of husband and wife working in the construction of tertiary irrigation channels.

b. Kayu Cupang Saiyo farmer group

Based on observations in the field of construction sites that are very profitable right on the roadside, this group can reach 100 meters in length with assistance obtained in the amount of Rp. 30,000,000. With this long achievement, it can irrigate people's fields to 40 ha. The number of community participation and self-help in working helps resolve problems that exist by diverting a portion of workers' wages to transportation costs to fulfill administrative requirements for horticultural and plantation crops in the district, photocopy costs. The transfer of a part of workers' wages by organizing one day a week during the implementation of activities so that the wages in one day can be cash groups and involve the husbands of farmer group members in work but the wages of workers are only 1 person so that the salary of 1 person can be saved into cash group of farmer groups.

c. GP3A Bukik Posuak

In the results of interviews with ignition of 70 meters long the GP3A management who received assistance amounted to Rp. 25,000,000, - being able to irrigate a community's rice field of 20 ha is also constrained in the value of the wage of workers lower than the wages of government assistance projects from other services in the district of the villages Maek. To solve a problem under the direction of the chairman of a meeting of members do GP3A through rotation of workers between projects one with another project.

c. Embun Pagi Farmer Group

From the results of interviews with the management of farmer groups who received assistance amounting to Rp. 40,000,000, - can irrigate a community's land area of 20 ha. Achieving 130 meters of channel length and

community self-help can help solve economic problems so that a portion of wages can be stored in the cash of the farmer group which is then used to support activities such as group meetings, transportation arrangements for administrative services, photocopying.

Planning drawings are guidelines for farmer groups building channels that are made through the stages of site surveys, field measurements, drawing sketches together with farmer groups. At the time of work in the field there were still differences between the planning drawings and the location that was built, due to changes in location by the farmer groups. There are 2 farmer groups that experience obstacles in terms of planning drawings, namely:

a. Bundo Kandang farmer group

Assistance received is Rp. 35,000,000, - can irrigate a community's 30 ha rice field. With the attainment of a 100 meter channel length based on images, but by changing the channel height from 50 cm to 40 cm, it can increase the length to 15 meters. Image changes were facilitated by the leader of horticulture and plantation food service agencies through meeting group members, field supervisors, planning consultants. The technical reason for the image change is that the amount of water to be drained by tertiary channels is relatively small so that the 40 cm channel height has not caused overflow to the community rice fields.

b. Embun Pagi farmer group

From the results of observations in the field this group is located upstream and is slightly tilted so that the impulse of water that will enter the tertiary channel is greater. Therefore, the need to maintain channel walls and floors is more durable, namely by making tiered channels. From the planning drawings, existing tiered channels have not yet been made, but based on the meeting of members of the farmer group proposing a change of image to the leader of the horticulture and plantation food service plant which further facilitates the change of image into a tiered channel for field supervisors and planning consultants.

Social factors in farmer groups arise because of poor relations between sharecroppers and farmer groups. This happened to kayu cupang saiyo farmer groups so that the work in the field stopped until 1 week. The farmer group asks the leader of the village (wali nagari), the leader of the rural (wali jorong) to push in solving the problem. After going through a meeting of members of farmer groups, landowners, sharecroppers, the leader of the village (wali nagari) to development of tertiary channels can walk again. From the results of observations in the field, there are other social factors that become obstacles such as those that occurred in 3 farmer groups, namely: patai sabatang farmer group, putri mekar farmer group and GP3A bukik posuak compared to other groups. tree trunks, leaf twigs, sand deposits that interfere with water flow. This was followed up by farmer groups or GP3A through group member meetings in order to establish the implementation of mutual cooperation. At the Putri Mekar farmer group at the time of the implementation of the work faced the problem of damaging the channel that had been built by farmer groups by land owners who were not members of the women's farmer group in bloom. The incident was caused by the land owner not giving permission for the use of land for the development of the channel, so through the discussion of members of the farmer group, the owner

facilitated by the leader of village (wali nagari) so that problems could be overcome and the construction of the channel through the land was continued. From the explanation above, it can be seen that the empowerment factor is the key to the implementation of the community so that the farmer groups succeed in solving the problem without district service interventions.

In the past, based on the results of interviews with farmer groups, irrigation network development, especially the main network was fully handled by the government and almost said that it did not involve the active role of farmers, even the government was involved in developing tertiary networks that were recognized as farmers' responsibilities. Likewise in the operation and maintenance of irrigation networks, primary irrigation network maintenance operations (weirs, primary canals and secondary channels) and their complementary structures are fully the duty and authority of the government, farmers tend to be placed as recipients of decisions and government operations and maintenance. thus the sense of ownership and responsibility of farmers towards the irrigation network has disappeared, farmers see the irrigation network as owned by the government which will always be operated and maintained by the government itself, or in other ways farmers are very dependent on the government in the operation and maintenance of irrigation networks.

4. Conclusion

Based on the research, it can be concluded that three things: 1) the implementation of DAK in irrigation development in the village Maek is carried out by self-managed farmer groups both incorporated in the P3A and not, coordinated by the leader of horticultural food crops and plantations to develop tertiary irrigation, 2) The tertiary rig that was built by the farmer group succeeded in solving the problem of lack of agricultural food water. The availability of sufficient water has increased cropping indices, crop failure is absent, and no more water conflicts between farmers ; The success of tertiary irrigation rehabilitation in village Maek shows effective collaboration between the central government, district governments and farmer groups solving food sovereignty problems at the village Maek community level. Farmer groups are able to engage in tertiary irrigation rehabilitation by mobilizing their members. The organization of villages provides active support to farmer groups in fostering, escorting, working up to the utilization of irrigation networks that have been built. Horticulture and plantation food service offices enable the people farmer groups by coordinating and supervising farmer groups in conducting tertiary irrigation development. The results of this study show that the empowerment of the Nagari Maek farmer group itself is a key factor in the success of the DAK irrigation network development in agriculture.

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