



SCIENCE AND TECHNOLOGY FOR THE REGION OF CAMBAI SUB-DISTRICT, PRABUMULIH ADMINISTRATIVE CITY

(IbW KECAMATAN CAMBAI KOTA ADMINISTRATIF PRABUMULIH)

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ABSTRACT

Science and technology for the region of Cambai sub-district, Prabumulih Administrative city communities have been conducted from February to December 2010. The programs included training and demonstration as well as establishment of "Demplot". The programs which have been conducted were training and demonstration of organic horticultural farming system, integrated organic farming, organic fertilizer, fish farming, chicken stock (ayam arab), and processing of fish feed and poultry feed. The programs were conducted integratedly with related institution of local government, university partner (Universitas Palembang) and Sriwijaya University. Several academic staff and students were also involved during implementation programs. The results showed that there were significantly increased in skills and knowledge of farmers especially in producing organic fertilizer, organic vegetables, integrated organic farming system, fish farming and chicken stock (ayam arab) in better ways. Vegetable productions especially Kangkung, bayam, timun, terung were increased significantly compared to previous farming activities which were not using organic fertilizer. In addition, farmers have capabilities to produce self fish feed and poultry feed without purchasing from the stores which were very expensive. Furthermore, the activity of target farmer groups were also improved in such a way which could make them more established in order to increase their income in agriculture production activities.

Key words : *Organic fertilizer, integrated organic farming system, demplot, fish farming, chicken stock, fish feed, poultry feed*



I. INTRODUCTION

A. Background

Application program of science and technology for communities is one of several “community Service” activities developed by Directorate General of Higher Education through DP2M programs. Basic principle of this program is the capabilities of communities to improve their skill and knowledge in exploring and using natural resources for communities healthiness and welfare. Several problems facing by farmers and underdeveloped communities which have been identified included low skills and knowledge, limited financial support, uneducated and have no market bargaining position. Based on those problems, involvement of local government together with universities is a must. We are responsible and are able to contribute several efforts to improve the welfare of society. University which is known having several numbers of technologies has responsibility to distribute those technologies for the need of society. It can be done by helping local government in implementation of its program in enhancing the use of local natural resources which were abundant and have not been explored and improving skills and knowledge of communities in order to increase their income and welfare.

Through this program, several problems which are encountered in the communities can be minimized as quickly as we can. Improvement of skills and knowledge of communities is one of targets of this programs. Synergies collaboration between local government and private university as mitra or team work might be able to help development of under developed communities in searching better income and welfare in general.

Cambai sub-district is one of sub-districts in Prabumulih administrative city which is located about 60 km from Sriwijaya University. Cambai was pointed as target location since it has about 40.91 % of people with less income, most of communities are farmers, average education is primary school, having high number of natural resources which have not been explored, few number of potential human resources in agriculture sector, and as potential sub-district to be improved and developed. It is hoped that by having touch technology might increase the quality and quantity of agricultural production in order to improve farmer incomes as well as regional incomes. Cambai sub-district is also closed to Sriwijaya University, so activities could be run without distance problems. In addition, Sriwijaya University has social responsibility which has to be conducted to the people surrounding area.

Main Problem which was encountered at Cambai was less capability of communities to improve and develop their skills and knowledge in agricultural production in order to increase their incomes. The root problems are limited financial resources, low education background, limited skills and knowledge especially for good agriculture practices and use of appropriate technology, limited information and access to the market, minimum supporting infrastructure for marketing their agriculture products, limited willingness to change their attitude, and no rules and regulations that might rescue their life.

In line with Local Government Strategic Planning, it has been designed several programs which will be implemented through this program. Most of programs were designed together with local government, university and communities’ in charge who are responsible in guiding the implementation of this program. Local government will contribute cost sharing while universities will contribute appropriate technologies.

Sriwijaya University which is the biggest university in South Sumatra Province has social responsibility to help government in improving and developing government programs since university has several expertise and technologies that might be able to transfer for the need of



society. Through this program Several technologies in agriculture will be disbursed to Cambai communities especially in horticulture crop production, Fish farming and chicken stock (ayam arab).

B. Aims of Activities

The Aims of this programs were: 1) to increase and improve potential natural resources by application of appropriate technologies continously in order to increase communities welfare; 2) to increase and improve potential human and natural resources for poverty alleviation through improving capability of communities in using appropriate technologies especially in agricultural sectors.

C. Benefits of Programs

The benefits of this program were as followed:

1. To Increase skills and knowledge of communities in order to improve their income
2. To Increase the involvement of government, university and related institution in development of communities based on their responsibilities and competencies
3. To Improve university responsibility in increasing education and skills of communities and to increase the awareness of students in facing several problems encountered in communities and try to help them with skills and knowledge obtained during study in the university
4. To optimize the implementation of government programs which have been desgined in short and long term strategic planning of Prabumulih administrative city
5. To enhance development of all agricultural sectors with aplication of appropriate technology in order to increase market value of agriculture production
6. To improve the quality of government strtategic planning
7. To improve and increase collaboration among local government, NGO and universities in implementation of government programs

II. ACTION PROGRAMS AS ALTERNATIVE SOLUTIONS

Based on the root problems encountered during development of programs, there were several alternatif solutions which could carried out during the first year implementation program. Those programs were desinged together with local government and discuss in DPR to obtain approvement. Those programs were divided into long list and short list programs. The program which were proposed based on government and community prioroties to improve in short period of time and might be very urgent in order increase communities incomes and welfare. The program which were designed to be implemented in the first year were as followed:

1. Traning and demonstration of organic horticultural crop production system
2. Training and demonstration of organic fertilizer processing
3. Training of integrated organic farming system
4. Training and demosntration of fish farming
5. Training and demosntration of chicken stock (ayam Arab)
6. Training and demonstration the processing of fish feed and poultry feed



EXPECTED OUTCOMES

The expected outcomes of the first year programs were:

1. Organic fertilizer production which were enough for self consumption and commercialization in the surrounding area
2. Horticulture organic products which can be commercialized in the surrounding area
3. Implementation of integrated organic farming to increase farmer incomes
4. Increasing skills and knowledge of farmers in fish feed and poultry feed production
5. Increasing skills and knowledge in fish farming and chicken stock

III. RESULTS OF ACTIVITIES

The activities were started with data collection of potential region which was done during proposal development together with local government. Activities followed by visitation to location being target. The profil of the region was established in first month of implementation program followed by arrangement of implementation activities together with “Village Head” and all communities who will be involved in the activities.

The results of implementation activities during the first year were divided into two categories i.e output of activities and impact of activities for communities. The outputs of these activities were skills and knowledge in using appropriate technologies on processing of organic fertilizer, horticultural organic farming system, processing of fish feed and poultry feed, fish farming and chicken stock. In addition, there was also establishment of target farmer groups or “Kelompok Tani Binaan” which were the target of three years programs Kelompok Tani Binaan which were established were Kelompok Tani Timbul Jaya” for organic farming system, “Kelompok Tani Mitra Harapan” for aquaculture/fish farming and “kelompok Tani Kuba Serasan” for animal husbandry (chicken stock). Those target farmer groups were localized at the same location and were chosen based on: number of farm area own by the groups, centre of vegetable crop production in the region, centre of chicken stock in the region and activities of farmer groups,.

Local government together with university have committed to implement the project based on the skills and technologies owed by university while source of funding for materials comes from the government. Since the program were designed together, all activities which were implemented during the first year activities were conducted successfully and give several benefits to all communities which involved in these activities. University partner and several students were also involved in transferring skills, knowledge and technologies which included the training and demonstration on the processing or organic fertilizer, organic vegetable farming system, aquaculture/fish farming and chicken stock as well as production of fish feed and poultry feed.

The impact of activities were improvement of farmer skills and knowledge in agriculture practices, improvement and empowering of farmer group management, establishment of business group for commercialization products. All these efforts were designed in order to improve farmers income and welfare.



IV. CONCLUSIONS

Conclusion results that have been obtained during first year activities were as followed:

1. Establishment of target farmer groups (Kelompok Tani Binaan) which were the target for continuous activities.
2. Improvement of skills and knowledge of farmers in production of organic fertilizer for improving agricultural production
3. Increasing skills and knowledge in organic horticultural crop productions
4. Increasing skills and knowledge in fish feed and poultry feed production for self consumptions

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FOTO'S OF ACTIVITIES



Figure Ibw activities at Camai Sub-district and Demonstration of fish feed production



Figure Processing of fish feed



Figure "Tambak" own by farmer group and Distribution of fish feed



Raw material for organic fertilizer and Place for organic fertilizer processing



Demonstration of organic fertilizer processing and Training on organic fertilizer processing



Land condition before application of organic fertilizer, Land preparation



Kangkung is ready to harvest and Kangkung organik is ready to be sold and Cucumber and egg plant organic plantations