



AN ECONOMIC NON-PRODUCTIVE GROUP STRETCHED THROUGH THE VERTICAL GARDEN WITH WASTE PRODUCTS (In Pakis Village, Sawahan District, Surabaya City)

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Abstract

Economically non-productive groups in Pakis Village, Sawahan Sub-district, Surabaya City, which are the target of this Community Service activity, are members of PKK RT 05 and RT 06 RW IX Dukuh Kupang Timur Surabaya. The transfer of knowledge and technology to the target is provided through outreach and training activities: Entrepreneurship Training, Marketing technique training, Post-harvest management training, and *Vertical Garden* cultivation technique training. PRRA (Participatory Rapid Rural Appraisal) and RRA (Rapid and Rural Appraisal) are methods used to implement Community Service in Pakis Village, Sawahan District, Surabaya City, which provide opportunities and space for target with universities as implementer an active role in all aspects, beginning with planning, organizing, implementing, and evaluating the implementation.

Increasing cadre motivation to become independent entrepreneurs through vegetable cultivation activities, mastering vegetables with *Vertical Garden* technology effectively and efficiently, mastering post-harvest technology, packaging, and labeling make *valuable* to vegetable products, and developing vegetable cultivation as a sustainable entrepreneurial a

re some of the accomplishments of this activity.

Keyword: *Vertical Garden*, Entrepreneur.

A. IMPLEMENTATION BACKGROUND

Pakis Village is one of the areas included in the administrative area of Sawahan sub-district, Surabaya City. This urban area is a residential area with a heterogeneous social and economic status. Community members in this area, besides many who work as civil servants or the private sector, many women are only housewives without productive economic activities. So they cannot show their role as supporting the household economy and contributing to environmental development.

In the areas of RW IX, Pakis sub-district, Sawahan sub-district, especially in RT 05 and RT 06, where the number of family heads reaches nearly 200, it is recorded that approximately 10-15% of homemakers are mothers who fall into the category of economic beneficiaries. The primary consideration for the implementing team in carrying out activities that increase willingness and ability to develop economic creativity through community service activities is the condition of the target, who are PKK members. This activity is carried out by managing used goods for farming. Due to limited land resources, cultivation techniques for vegetable plants are carried out using the *Vertical Garden* technique. The selection of cultivated commodities is based on economic and educational value to the community in terms of health.

Used goods are waste or garbage increasing in number in the city of Surabaya, the increasing number of residents, and the increasing variety of industrial products served in plastic packaging and cans that are difficult to decompose. The waste becomes an environmental problem because the quantity and danger interfere with people's lives and the environment. On the other hand, used goods no longer

have technical or economic benefits and often cause complicated management problems. The used goods include paralon pipes, used wood from buildings, gutters, milk cans, plastic packaging, etc. Utilizing used goods for cultivation activities through vertical garden techniques positively impacts families and communities because these activities add economic value to the results of their cultivation and add to the aesthetic value of the environment and provide an alternative solution to the problem of urban waste.

B. IMPLEMENTATION METHOD

The active participation method is the basis for implementing Community Service. It is hoped that this method and increasing the sense of belonging to the target can also motivate supporting agencies from related institutions to make it easier to achieve community service goals.

By prioritizing a persuasive-educative approach, the implementing team conveys the aims and objectives of implementing Community Service so that the target group can receive and provide an encouraging response. In essence, this program supports programs that the government has launched to increase maternal empowerment. Most of whom are housewives, PKK mothers should have the technical and management skills to manage the environment by cultivating vegetable commodities using vertical garden technology by utilizing used goods.

C. IMPLEMENTATION AND DISCUSSION

a. Problem Inventory.

An inventory of target problems and targets to be met must be taken to streamline the steps of community service activities. The problem, potential solutions, and expected outcomes are all described below.

Table 1: Partner Troubleshooting Solutions.

NO	PARTNER PROBLEMS	SOLUTION OFFERED	TARGET
1.	Aspects of the use of used goods	Counseling on the understanding of the importance of managing used goods so that they have technical and economic benefits as well as environmental hygiene and health	Increasing awareness of the importance of used-goods management Utilization of used goods for productive economic purposes.
2	Cultivation Aspect	a. Extension of Vertical Garden Cultivation Techniques b. Vertical Garden Cultivation Practice c. Accompaniment	a command of vertical garden cultivation techniques.
3	Aspects of Post-harvest Management	a. Post-harvest management counseling (<i>sorting and grading techniques</i>) b. Counseling, practice, and assistance on <i>packaging techniques</i> c. Counseling, training, and <i>labeling assistance</i> .	a. The importance of post-harvest management is becoming more widely recognized. b. Mastery of <i>Sorting, Grading, Packaging, and Labeling techniques</i>
4	Preparation of Cash Flow of financing and receipts	a. Extension of techniques for preparing cost plans and calculating revenue and income. b. Preparing financing plans and calculating revenues and revenues	is a practice.
5	Marketing Aspect	Business motivation and practical marketing techniques are discussed. - Reading market opportunities - Promotion Technique	A growing interest in selling, as well as the ability to identify opportunities and choose effective and efficient marketing strategies
6	Entrepreneurial Mental Aspect	Provide counseling about motivation to be independent. Creative and earn.	Changes in economically productive behavior manifest the growth of motivation and interest in entrepreneurship.

b. Formation of working groups.

For this program activity to run effectively and efficiently, it is deemed necessary to form a working group based on partner zoning, namely working group I for partners from RT 05 and working group 2 from RT 06. With the presence of a group leader, coordination becomes easier both in extension activities and field activities involving moving targets to carry out cultivation activities and coordinating with RT officials and local community leaders.

c. Extension Activities to Cadres

the philosophy of *Learning by Doing* and *Seeing is Believing* became the basis of the outreach activities. The material presented included motivation to be independent and entrepreneurship about the ins and outs of vegetable crops, descriptions, benefits from the economic side, and health aspects and cultivation. In reality, changing one's behavior is not as easy as turning the palm. Therefore, in carrying out this community service, the implementing team must master communication techniques and the *human approach*.

Documentation of extension activities can be seen in the following figure:



Figure 1-2: Outreach activities.

d. Cultivation Activities.

This activity begins with preparing the vertical shelf design until it is ready to be used as a place for cultivation activities. Here are the methods and shelves that have been scheduled:

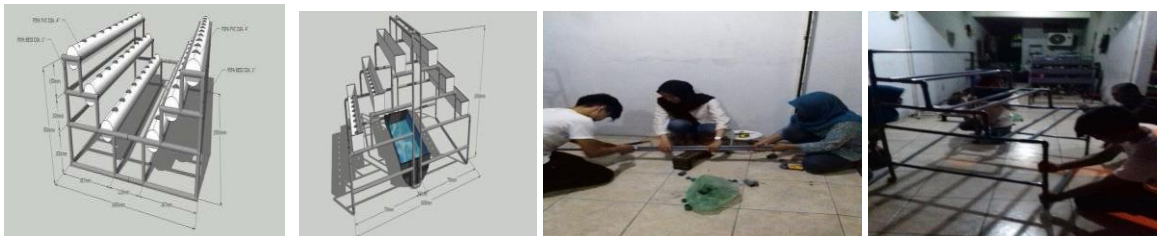


Figure 3-6: Design and Preparation of Vertical Shelves.

The cultivated commodities are vegetables because they are consumed by the surrounding community and provide additional income by selling them. Besides Lombok, eggplant, tomatoes are also vegetables with high economic value and health benefits such as mint, kale, red spinach, lettuce, okra, zhukini, etc.

- **Nursery**

Nurseries are carried out using used items such as bathtubs, buckets, slops, aqua glasses, etc. as shown below:



Figure 7-10: Nursery

- **Planting.**

After the seeds are three weeks to one month old, transplanting is carried out where the plants have been prepared vertically using used bottles, used cans, used paralon, etc. Planting activities can be seen in the following figure:



Figure 11-14: Planting.

- **Plant maintenance.**

After the plants are two weeks old, fertilization is carried out using liquid organic fertilizer.



Figure 15–18: Plant maintenance

- **Harvest.**

Harvest time is a joyful time, and it is what the cadre mothers have been waiting for a long time. Mothers harvest their crops with enthusiasm and joy. Seeing how their cultivation has yielded positive and successful results, the cadres are becoming more motivated to continue this activity in the future.



Figure 19–21: Harvest Activities

- **Packaging and Labeling**

The harvest is sorted based on the size and integrity of the products then packaged in attractive packaging to maintain the quality of the products to be marketed. The cadres are also in charge of labeling activities to grant trademarks. This activity symbolizes responsibility for producing the quality of the products and a marketing and branding tool for the resulting vegetable

products. The various post-harvest activities that are carried out eventually impact the selling value. The production results from post-harvest activities are depicted in the diagram below.



Figure 22 – 25: Labeling and packaging

- **Product marketing**

The target is Community Service activity, among others, is the emergence of entrepreneurship from the cadres, manifested by their passion for selling. As the cadres did initially sell products door to door to homes, this received a satisfying response because mothers did not have to go far to the market to get vegetables that were still fresh and had been harvested at a lower price. The following is a picture of door-to-door sales.



Figure 26–28: Product marketing activities

D. CONCLUSIONS AND SUGGESTIONS

- **Conclusion.**

It can be concluded that the Community Service Activities in RT 05 and RT 06 RW IX, Dukuh Kupang Timur, Pakis Village, Sawahan Subdistrict, Surabaya City are running as expected. This result can realize because of the strong support from the RT and RW officials. Besides that, the material provided follows the wishes and level of targetability to participate optimally and responsibly.

7.2 Suggestions

Transform business to entrepreneurship cadres require regular and ongoing assistance, particularly in understanding consumer tastes, expanding market share, and effective and efficient entrepreneurship strategies. So that these non-productive economic groups can genuinely be self-sufficient and prosperous, serving as forerunners in the emergence of new entrepreneurs.

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