

RUMAH CUKUP (RUCUP): Farmer Households Community Development Programme as a Solution for Increasing Food Availability on Kemaro Island, Palembang City

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Abstract

National food security begins with the provision of food in the smallest locations, mainly villages and sub-districts. Kemaro Island is part of Palembang City, which is administered by Kelurahan 1 Ilir Palembang City. Due to limited accessibility, circumstances for providing basic requirements, particularly food and clean water, are severely constrained. Foods such as vegetables and fruit are still scarce in this area, particularly milk, cereals, and other nutritional foods. The method used is the participatory urban methods with the community through focus group discussions (FGD) and the practice of building Rumah Cukup (Rucup). The instruments used in the Empowerment of the Kemaro Island community are powerpoints for socialization, pots and seeds for sufficient house building activities and demonstration plots for pilot locations. Thus, it is vital to undertake measures to boost the availability and accessibility of food for independent home farmers in this region, given the territory's status as a distinct island. Efforts to enhance the food security of farmer households on Kemaro Island can be accomplished through the implementation of a participatory in *Rumah Cukup (Rucup)* program. This empowerment will ultimately have an impact on the welfare of the people of Kemaro Island by utilizing their limited land for vegetable and horticultural planting activities for substitution activities and alternative livelihoods for the community.

Keywords: Farmer Household; Food Security; Community Development Program; Agriculture

Abstrak

Ketahanan pangan nasional dimulai dengan penyediaan pangan di lokasi terkecil, terutama desa dan kecamatan. Pulau Kemaro merupakan bagian dari Kota Palembang yang dikelola oleh Kelurahan 1 Ilir Kota Palembang. Karena aksesibilitas yang terbatas, keadaan untuk menyediakan kebutuhan dasar, khususnya makanan dan air bersih, sangat terbatas. Makanan seperti sayur dan buah masih langka di daerah ini, terutama susu, sereal dan makanan bergizi lainnya. Metode yang digunakan adalah dengan *participatory urban methods* dengan masyarakat melalui focus group discussion (FGD) dan praktik pembuatan rumah cukup. Instrumen yang digunakan dalam Pemberdayaan masyarakat Pulau Kemaro adalah powerpoint untuk sosialisasi, pot dan bibit untuk kegiatan pembuatan rumah cukup dan demplot untuk lokasi percontohan. Oleh karena itu, sangat penting untuk mengambil langkah-langkah untuk meningkatkan ketersediaan dan aksesibilitas pangan bagi petani rumahan mandiri di wilayah ini, mengingat status wilayah tersebut sebagai pulau yang berbeda. Upaya peningkatan ketahanan pangan rumah tangga petani di Pulau

Kemaro dapat dilakukan melalui pelaksanaan program Rumah Cukup (Rucup) secara partisipatif. Pemberdayaan ini pada akhirnya akan memberikan dampak bagi kesejahteraan masyarakat Pulau Kemaro dengan memanfaatkan lahannya yang terbatas untuk kegiatan penanaman sayuran dan holtikultura untuk kegiatan substitusi dan alternatif penghidupan masyarakat.

Kata kunci: Rumah Tangga Petani; Ketahanan pangan; Program Pengembangan Masyarakat; Pertanian

INTRODUCTION

Food security was described in the 1996, World Food Summit as "the continuous, physical, social, and economic availability of all people to adequate/sufficient, nutritious, and safe food that satisfies their food needs and food choices for an active and healthy life" (Shaw, 2007). Food security is defined in Indonesia's Food Law No. 7 of 1996 as a state of adequate food for households, manifested by the availability of sufficient food, both in quantity and quality, that is safe, equitable, and cheap (Soetoto (2018); Zazili *et al.* (2022)). National food security must begin with ensuring food availability in the smallest locations, notably villages and sub-districts (Nasuiton and Nurjaman (2020); Maddatuang *et al.* (2021)). As a result, decreasing difficulties in all facets of food security in the community, down to the village level, requires continual monitoring (Campbell *et al.* (2016); Umesha, Manukumar and Chandrasekhar (2018)).

The island of Kemaro had a difficult time satisfying its two most fundamental requirements, which were to have access to both food and clean water. According to the findings of earlier studies, the location of Kemaro Island, which has limited accessibility because of its status as a distinct island, and yet has a poor level of food security. Because the level of community welfare is so low, there is an exceedingly limited supply of food for domestic consumption.

Kemaro Island is a component of Palembang City and is included in the administrative region of Kelurahan 1 Ilir Palembang City. Kemaro Island is served by two RTs, namely RT 17 and RT 18, which are also part of Kelurahan 1 Ilir Palembang City. However, due to the area's island-like position, access to Palembang is relatively limited; residents of Kemaro Island may only reach the city via ketek boat or speed boat (Istianda, Darmanto and Wahyudi, 2021). Additionally, community livelihood activities on Kemaro Island remain very confined to agriculture and fishing activities, resulting in inadequacy of community welfare circumstances (Syarifudin, (2017); (Sulistiyani, Imanudin and Said, 2019)).

Due to accessibility constraints, circumstances for meeting basic requirements, particularly food (Yuliana *et al.*, 2021) and clean water (Sulistiyani, Imanudin and Said, 2019), are severely constrained. The population obtains drinking water by purchasing refillable liters from merchant vessels on the island (Anthonj *et al.*, 2020), while food is obtained through agricultural goods such as rice and fishermen's catches such as fish, shrimp, and other fishermen's products (Budi and Syafitri, 2020). However, vegetables and fruit, particularly milk, grains, and other nutritional meals, are still extremely scarce in this area. Therefore, it is vital to undertake measures to boost the availability and accessibility of food for independent home farmers in this region, given the territory's status as a distinct island (Ahmed *et al.*, 2017).

In fact, many companies and institutions have provided assistance for the empowerment of the people of Kemaro Island, but because it is not bottom-up based on the needs of the local

community, so many empowerment programs fail, this of course makes the community suffer even more. Academics in higher education responded to this condition by making social innovations that are useful in maintaining the survival of the community, especially the poor and unable to access financial capital.

Therefore, programs to increase the food security of farmer households on Kemari Island may be accomplished by offering an *Rumah Cukup (Rucup)* program that is participatory in nature, allowing the target audience to engage in the activities and sustain their participation. The *Rumah Cukup (Rucup)* program's provision is based on the concept of providing household food independently through the cultivation of diverse and unique horticultural crops in each household, allowing for the barter or exchange of commodities produced that are complementary in nature, with the goal of meeting the nutritional adequacy of food for farmer households on Kemaro Island. The *Rumah Cukup (Rucup)* activity can also be expanded at a later stage by establishing a local group or institution for managing commodity barter in the form of a Food Bank (Farahbakhsh *et al.*, 2017), which is accessible to all farmers on Kemaro Island, and enabling market transactions (Community Trade) during the development stage. It is hoped that the implementation of the *Rumah Cukup (Rucup)* idea would not only increase the food security of individual households but also improve the food's quality and the population of Kemaro Island's nutrition.

GENERAL DESCRIPTION OF THE COMMUNITY, PROBLEMS AND TARGET SOLUTIONS

General description

Kemaro Island is a component of Palembang City and is included in the administrative region of Kelurahan 1 Ilir Palembang City (Figure 1). Kemaro Island is served by two RTs, namely RT 17 and RT 18, which are also part of Kelurahan 1 Ilir Palembang City.

This community service activity was carried out on Kemaro Island, Palembang City from June to November, 2019. The participants in this service activity conducted by 20 farmer households from Kemaro Island, Palembang City.

Problem

Kemaro Island faced a 2 big problem in fulfilling basic needs, There are (1) food and (2) clean water. The material provided is the *Rumah Cukup (Rucup)*, which will be distributed to farmers on Kemaro Island as a means of increasing the food security of farmer households on the island, based on previous research, where this location has limited accessibility due to its status as a separate island and is still low in food security. The degree of communal welfare is so low that home food requirements are extremely constrained.

Target solution

In the implementation of this community service activity, activities have been carried out in the form of counseling using the presentation and discussion methods with the focus group discussion (FGD) method, which presents the material about the concept of an *Rumah Cukup (Rucup)* as an effort to increase food security for farmer households on Kemaro Island, Palembang

METHOD

The method of implementing the Self-Sufficient House community empowerment (RUNCUP) consists of six stages. The six stages of community empowerment use participatory urban methods (Brown, Rhodes and Dade, (2018); Flower *et al.* (2018); Haklay, Jankowski and Zwoliński (2018)).

Stage 1: Identify problems by conducting FGDs with farm households

Stage 2: Providing counseling related to the concept of Enough House



Figure 5. Rumah Cukup program pamphlet and socialization

Stage 3: Introduction of tools and group division



Figure 6. distribution of tools and seeds

Stage 4: Making demonstration plots for home initiation is sufficient



Figure 7. students practice making hanging pots

Stage 5: Plant seeding in the demonstration plot



Figure 8. mothers plant seeds

Stage 6: Program evaluation



Figure 9. Evaluation and giving gift of Group Members to the *Rumah Cukup* Program

RESULTS AND DISCUSSION

Conception and Execution of Troubleshooting

To carry out this community service activity, counseling activities in the form of presentations and discussions were conducted using the focus group discussion (FGD) method, which presents material on the concept of a Sufficient House (Rucup) as a means of increasing food security for farmer households on Kemaro Island, Palembang City. The extension activities give content in the form of an explanation of the Adequate House program that will be provided and executed for the community on Kemaro Island. This program was established to assist the community in increasing the food security of farmer households on Kemaro Island.

The concept introduced in the Enough House program is to facilitate the community on Kemaro Island, Palembang City with tools and materials to carry out vegetable farming at home which aims to improve the food security of farmer households in this area. In this activity, participants are grouped into 4 zones which are divided into 4 groups of vegetable commodities (table 1).

Table 1. The division of the *Rumah Cukup*'s zone program

Zone A	Zone C
Chili	Caisim and Lettuce
Zone B	Zone D
Kale and Spinach	Tomato and Celery

Each home will be separated into zones (A, B, C, and D), with each zone planting a unique zone. Crop results will be compiled, and a barter mechanism across zone groups will be implemented to ensure that each home receives a full harvest. As a result, farming operations are scheduled according to a farming calendar. Calendars for farming are created for each zone. The objective is for harvesting to occur concurrently with the bartering process.

Through these outreach events and talks, the target population gained a knowledge of the notion of an Adequate House, which strives to minimize household expenditures on food, raise resident income, train and provide a farming culture, thrive, and promote village harmony. *RUCUP* operations can be expanded by the establishment of an institution, such as a food bank.

As a way to encourage members of farmer groups to engage in farming with the concept of building an adequate house on top land, this community service activity provides assistance in the form of various types of seeds and vegetable seeds that can be planted. Additionally, compost is provided for sowing vegetable seeds that can be planted. Additionally, a polybag is included.

With the support of seeds, fertilizers, and polybags, it is anticipated that farmers in this region would remain excited about sustainable vegetable cultivation.

At the implementation stage, a demonstration plot for Adequate Houses was created in front of the yard of the Chairman of RT 17 Pulau Kemaro. The demonstration plot was created with the intention of serving as a model for other groups separated into zones based on the commodities being farmed. The demonstration plots were created by spreading vegetable seeds in seedling media and planting the vegetable seeds brought in to demonstrate the use of yard land for vegetable growing to program participants. Previously, all commodity groups received seeds and polybags, as well as pots and planting material, in the form of organic fertilizer.

Following the sowing procedure, a demonstration plot of *RUNCUP* is established in the yard. Additionally, this activity is carried out collaboratively by all program participants. The community's eagerness for becoming program participants is palpable, as more and more individuals arrive and register for another zone group. Due to the increasing number of attendees, the number of groups was expanded to eight with the partition of four zones as previously done.

Realization of Troubleshooting

The outcomes of this exercise indicated that program participants gained a better grasp of the idea of an Enough House, which strives to boost household food security and income through home gardening. Members of the group are excited to continue farming activities and to make the best use of the tools and materials provided by the Sriwijaya University team. Additionally, the community hopes that the Sufficient House activities in this area will remain sustainable as a source of vegetable food for local households. Along with developing an understanding of the Enough House program, group members are interested in expanding the types of vegetables cultivated so that they are more varied and farmers can complement one another with the types of vegetables planted so that the selling price does not decrease because the harvest is not as large as it is when large quantities are harvested.

Target Audience Responses and Feedback

The target audience's response to this community service activity appears to be extremely positive; the provision of seeds is well received by group members, and the group leader is also open to the yard being used as a demonstration plot for the Enough House Program, which will continue at the service activity stage next year. Thus, it is hoped that by 2020, this community service activity will have progressed to the point of establishing an Agroecotourism demonstration plot that can serve as a model for other group members interested in increasing horticultural farming production on limited land in this area and establishing a tourist attraction on Kemaro Island that generates revenue for program participants.

The Evaluation of the Issues' Outcomes

The community service activities demonstrate that the issue confronting the members of the Enough House group is a lack of available land for farming, as the construction of houses on stilts with footpaths in the form of bridges limits the area available for planting with polybags, necessitating the use of a vertical garden facility, enables vertical vegetable growth.

The concept of urban farming which emerged from the conversation is a means of resolving difficulties in a small farming area, but is confined by available equipment and resources. The community expects stakeholders to contribute to the sustainability of the Adequate House

program on Kemaro Island by giving support with tools and materials for sustainable program development so that the community participating in the program can experience the program's advantages. Mentoring activities are also required to continue for newly established groups to ensure that activities adhere to the Enough House program's aims.

CONCLUSIONS AND SUGGESTIONS

Numerous conclusions have been drawn as a result of community service activities. The outcomes of this activity indicated that members of the Enough House Program group gained a better awareness of initiatives to promote family food security through home agricultural activities using a zone system and food barter. Along with comprehending the program's objectives, the community is committed to the program's continuation in order to earn additional income from vegetable farming activities conducted through the formation of a Commodity Zone group, which is expected to evolve into a Food Bank during the next stage of activities. The community expects stakeholders to contribute to the sustainability of the Adequate House program on Kemaro Island by giving support with tools and materials for sustainable program development so that the community participating in the program can experience the program's advantages.

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