

Catfish Cultivation as a Form of Support for Food Self-Sufficiency for Fulfillment of Nutrition in Preventing Stunting in Sumurwiru Village, Cibeureum District

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ABSTRACT

Stunting is one of the problems currently being faced by Indonesia and has become a concern for the government because it is a serious condition in children which will eventually lead affect the quality of Indonesia's young generation. Stunting is characterized by a child's height below the average and a body that does not grow and develop properly according to his age which lasts for a long time. Even in the long term, stunting will eventually be followed by intelligence disorders in children due to lack of nutrition, including in Sumurwiru village, Cibeureum sub-district. This village, which has a population of 1164 people, has stunting problems, it can even be called a stunting emergency. This can be seen from the data obtained as many as 8 children experienced stunting even within a period of 6 months experiencing an increase in the stunting rate of 12 children. In addition, another problem in Sumurwiru village is the lack of food commodities as a source of fulfilling community nutrition which encourages stunting. Seeing this increase in numbers, the implementation of this catfish farming work program as a support for food self-sufficiency to fulfill nutrition in Sumurwiru village in preventing stunting through the Kelompok Wanita Tani (KWT) as the manager. This program also helps improve the economy of the Sumurwiru village community because catfish farming is a business that is in demand by farmers with a growing market value and a promising business. This activity consists of several stages as follows: 1) Field survey; 2) Coordination with managers of women farmer groups (KWT); 3) Cooperating with partners; 4) Program implementation; 5) Program evaluation.

Keywords: stunting, nutrition, catfish

INTRODUCTION

Indonesia's population, which currently numbers more than 250 million people, makes Indonesia the 4th most populous country in the world. In addition to human resources, Indonesia also has abundant natural resources. However, this is inversely proportional to the current nutritional status in Indonesia, especially the prevalence of stunting which is increasing. Problem stunting is an urgent matter that must be addressed immediately because it will cause state losses in the future. The problem of stunting threatens the quality of the nation's generation because it shows growth failure which is marked by height (TB) or body length (PB) of toddlers that are not in accordance with their age. The younger generation who experience stunting has the potential to become adults who are less educated, poor, less healthy and more vulnerable to non-communicable diseases. Stunting in toddlers will cause growth and development disorders, including cognitive and physical development, metabolic disorders that carry an increased risk of degenerative diseases, as well as socio-emotional development in later life periods (Trihono et al., 2015).

Stunting according to the World Health Organization (WHO) is defined as a growth and development disorder experienced by children. Stunting (short) occurs due to malnutrition or chronic malnutrition during the first 1,000 days of a child's life, both macro and micro nutrition deficiencies, very poor nutritional intake during pregnancy, very poor food parenting patterns, low food quality in line with the frequency of infection so that it can lead to malnutrition. inhibit growth. (Astika et al., 2021)

In fact, the problem of nutrition and stunting is currently not only overshadowing children in Indonesia, but also children in the world. According to UNICEF data (2019), 149 million children in the world are stunted, of which 13 million are from Asia and the Pacific. In fact, in 2019 more than 60% of children under five years old in the world did not grow well where they experienced stunting to obesity (Zulkarnain et al., 2021).

In Indonesia itself, the results of the 2018 Basic Health Research (Riskesdas) show that the number of stunted children in Indonesia reaches 30.8 percent (Yulanda, Ligita, Saputri, & Martadi, 2020). This figure shows that a third of Indonesian children under five are malnourished which results in failure to grow optimally, characterized by short stature, delayed motor skills, susceptible to infection, low learning and socialization skills, low school achievement, low work performance as an adult, and susceptible to disease (Nuraeni, Gundara, & Nano, 2019).

This makes the government in Indonesia, including in Sumurwiru Village, take action to overcome the stunting. Stunting is one of the targets of the Sustainable Development Goals (SDGs) which is included in the 2nd sustainable development goal, namely eliminating hunger and all forms of malnutrition by 2030 and achieving food security. The target set is to reduce the stunting to 40% by 2025 (Siregar, Syukur, Suryani, Br, & Nino, 2021). This village which has a population of 1164 people has stunting problems, it can even be called a stunting emergency (Yulianti, 2021). This can be seen from the data obtained as many as 8 children experienced stunting even within a period of 6 months experiencing an increase in the stunting rate of 12 children. In addition, another problem in Sumurwiru village is the lack of food commodities as a source of fulfilling community nutrition which encourages stunting (Caterina et al., 2022).

To achieve this, the nutritional needs of toddlers must be met with the fulfillment of nutrition for toddlers. Fish is a source of nutrition that contains fatty acids that are rich in benefits for brain development and body resistance to disease as well as the development of the sense of sight and the immune system (Rosalina, 2015). Catfish (*Clarias gariepinus*) is one of the fishery commodities that is quite popular in the community. This fish comes from the African continent and was first imported to Indonesia in 1984 (Ubaidillah, A., & Hersulistiyorini, 2010). Catfish is one of the aquaculture commodities that has various advantages, including fast growth and high adaptability to the environment (Ariani & Septiani, 2019).

METHOD

This program activity is carried out using the distribution method, namely the distribution of self-sufficiency in catfish seeds. prevention stunting Indicator of achievement of goals if at least 60% of the community can feel the benefits. Participants in this service are cadres of the Kelompok Wanita Tani (KWT) and fish pond managers, totaling 30 people and 2 managers. This service activity was carried out in the garden of the Kelompok Wanita Tani (KWT) which is located at Jalan Raya Sumurwiru Village, RT/RW 01/02, Cibeureum District, Kuningan Regency. This program consists of several stages in its implementation, namely: (1) Field survey; (2) Coordination with the management of women farmer groups (KWT); (3) Cooperating with partners; (4) Program implementation; (5) Program evaluation. The flow of implementation of catfish farming activities as a form of supporting food self-sufficiency to fulfill nutrition in preventing stunting in Sumurwiru village, Cibeureum sub-district is as follows:



Figure 1. The flow of implementation

The following is a description of the activities of the STKIP Muhammadiyah Kuningan Real Work Lecture (KKN) group in 2022 as service participants based on the flow of catfish farming

service implementation as a form of supporting food self-sufficiency to fulfill nutrition in preventing stunting in Sumurwiru village, Cibeureum sub-district.

Survey Field

Survey Field surveys were carried out by students of the Community Service Program before the program was implemented, which aimed to observe the situation and condition of the available fish ponds. This field survey activity was carried out in the garden of the Kelompok Wanita Tani(KWT) Tani Mukti, Sumurwiru Village. This observation was carried out 3 times. The first survey at the beginning of the KKN coincided with the community saba activity, precisely on the 2nd day. The second survey was carried out in the first week to be exact on the 5th day. Meanwhile, the third survey was carried out in the 2nd week at the same time asking for permission from the Sumurwiru village head to carry out a catfish cultivation program as a form of supporting food self-sufficiency to fulfill nutrition in preventing stunting in Sumurwiru village, Cibeureum sub-district. The survey results obtained are that in the KWT garden there are 4 fish ponds, 2 of which have been filled with catfish seeds.

This village, which has a population of 1164 people, has stunting problems, it can even be called a stunting emergency. This can be seen from the data obtained as many as 8 children experienced stunting even within a period of 6 months experiencing an increase in the stunting rate of 12 children. In addition, another problem in Sumurwiru village is the lack of food commodities as a source of fulfilling community nutrition which encourages stunting.

Coordination with the manager of the Kelompok Wanita Tani (KWT) Tani Mukti

After requesting permission from the village head of Sumurwiru, the next step carried out by the students was to coordinate with the village apparatus as well as the manager of the KWT Tani Mukti, namely Mr. Hamdan. This is intended to determine consensus agreement in the implementation of adding catfish to be cultivated. The results of this coordination show that the village is very responsive to the catfish farming program that will be implemented. This good response was obtained because the village apparatus realized that the existence of catfish farming was able to help the economy of the Sumurwiru village community and became one of the prevention of stunting problems.

Collaborating with partners

In the implementation of this work program, the Sumurwiru Village Community Service Program students chose the Kuningan Regency Fisheries and Livestock Service Office to be partners. Where previously the students had submitted a letter of application for fish seed assistance which was well received by the related parties. Furthermore, partners contributed to the process of distributing 1000 catfish seeds to the village together with students. In addition, partners also contribute in terms of non-formal assistance and counseling to students and managers of the Mukti Farmer Women's Group (KWT) in terms of maintaining and breeding the catfish. By doing this, it is hoped that this work program will not only provide catfish seeds, but also provide understanding to the community with the aim of equipping the community to be able to cultivate catfish properly in order to achieve maximum results.

Implementation of the program

After receiving 1000 catfish seeds by the manager of the Kelompok Wanita Tani(KWT) Tani Mukti from the partner, the next stage is the maintenance of catfish in which there are feeding activities for a period of 2 weeks. After the process and the fish have grown enough, the next stage is sorting the catfish which are then separated according to the size of the catfish.

Program evaluation

Evaluating the implementation of catfish farming carried out by the Kelompok Wanita Tani(KWT) Tani Mukti, providing suggestions for redeveloping catfish farming and increasing community food independence by consuming catfish as one of catfish prevention as food and nutrition support for the Sumurwiru Village community .

RESULT AND DISCUSSION

The implementation of KKN activities carried out by students from 6 educational study programs at STKIP Muhammadiyah Kuningan for more than 1 month, from July 2022 to August 2022. One of these KKN Programs is Catfish Cultivation as a form of supporting Food Self-Sufficiency for the fulfillment of Nutrition prevention stunting. This Cultivation Program is divided into several stages, with the activities of each stage as follows:

Stage 1

The first stage is carried out by making observations first to obtain information about the maximum utilization of the existing tarpaulin pool. The observation process was carried out by conducting an interview process with the Sumurwiru village apparatus as well as obtaining permission to carry out the catfish farming work program. After obtaining the permit, the location was determined according to the recommendation from the Sumurwiru Village Head.

Stage 2

The second stage is carried out after obtaining permission to use tarpaulin ponds for fish, the first step taken by the students of the KKN group is to submit a letter of recommendation and request for catfish seed assistance to the Fisheries and Livestock Service Office of Kuningan district as a partner party to cultivate in the Women's Group garden. Farmers (KWT) Mukti Farmers in Sumurwiru Village. Within one week the application is approved by the partner and directly distributed by the head of the Department of Fisheries and Livestock through the head of the fishery section.

Stage 3

The third stage after the distribution of catfish to Sumurwiru Village is the maintenance of fish by feeding according to the dose recommended by the partner. After two weeks of carrying out maintenance, the next step is to manage fish by sorting by fish size. This sorting process aims to prevent cannibalism between catfish, especially small catfish where they are more susceptible to being eaten by larger catfish.

Stage 4

The fourth stage, after the sorting process is carried out, large fish will be harvested two weeks later. Where the harvest results by the manager together with the village apparatus are distributed to the people of Sumurwiru Village as one of the stunting called "People Love to Eat Fish".

CONCLUSIONS AND RECOMENDATIONS

Based on research in the implementation of this work program, it can be concluded that the activity of providing 1000 catfish seeds for cultivation can be a step to prevent stunting problems. Through this, it is hoped that the community will be able to understand how to cultivate catfish and the benefits of consuming catfish as nutritional fulfillment in preventing stunting. In addition, catfish farming can support the economy of Sumurwiru Village, Cibereum District. The results obtained from this program are an increase in the knowledge and skills of the Sumurwiru Village community about catfish farming and an increase in community food independence by consuming catfish as one of the prevention of stunting.

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APPENDIX



Figure 2. Community service documentation