Local wisdom of Muna Community in utilizing of yard as family food security

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Abstract. This study aims to describe the yard utilizing of the Muna Community as family food security and analyze local wisdom of the Muna Community in utilizing of their yards as a source of family food. The research was qualitative research, with informants from the Muna Community who have lived in the research location and utilized the yard as a family food source for at least 10 years, and Muna farmer community leaders who understand the meaning and function of plants and the Muna family's food needs. Data collection techniques were interviews, indepth-interview and FGD. Qualitative analysis was used in this research. The results showed that The Muna Community's yards were utilized by planting carbohydrate food sources (corn, tubers, taro, banana); protein (peanuts); minerals and vitamins (papaya, Moringa, Kondoru, coconut, lemongrass, galangal) and others and the yard utilization of Muna Community as a form of knowledge discovered by the Muna Community through a collection of experiences in trying and integrated with an understanding of the culture and natural conditions of a place of houses. It made it possible to strengthen family food security which was more efficient and productive in utilizing the yard.

1. Introduction

Food can be said as a cultural product. Food is the result of active adaptation between communities and their environment, so that the realization of food security must rely on local resources and wisdom. It can become a medium in developing the nation's culture and civilization [1-3].

Family Food Security needs to get the main attention, because the consideration of the distribution of the population, in addition to large numbers, is also spread in various regions in Indonesia with a varied food variety. Food security is a condition where food is fulfilled for a household, which is reflected in the availability of sufficient food, both in quantity and quality, safe, equitable and affordable [4-6].
Family as the smallest social unit becomes the foundation for the strength of national food security. The maintained of national food security will realize when food needs in the family are consistently fulfilled. Food security in the family can be started by utilizing every inch of land around the house.

Food security is very important, both from a biological and social perspective. Furthermore, food and food security is a social construction \cite{7,8}. Indonesia has the potential for local socio-culture in the form of local wisdom that supports food security, both in terms of plant variety, planting patterns and systems for using home gardens for food. However, this local wisdom has faded due to the "onslaught" of social construction originating from outside or the policy of uniformity. Therefore, there are several social constructions regarding food that need to be deconstructed and then reconstructed, while several local social constructs need to be strengthened and developed in order to create stronger food security.

Food that is cultivated and consumed by the community is the result of human adaptation to the environment according to their daily needs. How is the use of the yard for family food needs and how the local wisdom of the Muna Community is formed in the use of the yard for family food security \cite{9-11}.

Sustainable food security for the community is very important for the survival of the family, society and the environment. Home yard is land around a residence that can be managed as source of food if it is used wisely and takes into account the environment. The Muna Community is accustomed to the condition of marginal natural resources so that being in any area with the results of interaction with the environment shows specific behavior in the use of their yards.

Based on the explanation and background of the problem above, the objectives of this study were to describe the yard utilizing of the Muna Community as family food security and analyze local wisdom of the Muna Community in utilizing of their yards as a source of family food.

2. Materials and methods
The research was conducted in Anggoya Village, Kendari City, where the majority of the population is the Muna Community who utilize their yards as family food sources. The type of research was qualitative. The informants of this research were (1) the persons from Muna Community who have lived in the research location and cultivated a yard for at least 10 years, and (2) Muna farmer community leaders who understand the meaning and function of plants and the food needs of the Muna family. Data collection techniques were interviews, indepth-interview and Focus Group Discussion (FGD). The data was be analyzed by qualitative analysis. It was done by (1) described the existing conditions, and the informant’s explanation based on field observations, (2) analyzed with 5W 1H (what, why, who, when, where, how) method; what was the wisdom done, why was it done, who did it, when it was done, where it was done, and how to do it.

3. Results and discussion

3.1. Yard utilization of the Muna Community as family food security
The yard of Muna Community has a distinctive appearance and management. Various plants were cultivated around their house. All cultivated plants were a source of family food, both for daily food fulfillment and for food reserves at certain seasons and times. The choice of plant species cultivated in the yard was in accordance with natural conditions. The plants were relatively easy to develop on marginal soils. Maintenance of garden plants was simple and very easy, allowing these plants to live and produce whenever they are needed for consumption. An overview of the utilization yard by the Muna Community could be seen in Figure 1 (A, B, C).
Figure 1. Types of special crops in the yard of the Muna Community: a moringa, papaya, corn, coconut; b cassava, eggplant, spinach, thorn; c banana, taro.

The yard of the Muna Community was used for their living house, also for a variety of food plants. The food plants have a wide variety, namely: cereals (maize), tubers (sweet potatoes, cassava, taro), sources of oil and fat (coconut, candlenut, cocoa), vegetables, fruits (moringa, spinach, papaya, eggplant, *kedondong*, sugarcane, *katuk*, *konduru*, banana, guava, rambutan, mango) and nuts (peanuts, long beans) and other plants (lemongrass, galangal, turmeric, vegetable starfruit, ginger, *kencur*). Yard plants that were cultivated by the Muna Community were scattered around their houses; in the front, back and side. Some of the food plants that were characteristic of Muna Community were corn, cassava, banana, papaya, moringa, slippery leaves, *konduru* [10,12,13]. Spacing and cropping patterns tend to be irregular (Table 1a and 1b).

| No | Food Group | Type of plant | Reasons for planting | Location of planting | Actors |
|----|------------|---------------|----------------------|----------------------|--------|
| 1  | Grains     | Corn          | Staple food          | Around the residence | Father, mother, children |
| 2  | Tubers     | Cassava, sweet potatoes, taro | Staple food | Around the residence | Father, mother, children |
| 3  | Livestock  | Chickens      | Sudden necessities (entertaining guests, traditional events, for sale) | Around the residence | Mother |
| 4  | Oil/fat    | coconut, hazelnut | Family consumption, social needs | Around the residence | Father, mother, children |
| 5  | Fruits, vegetables | Papaya, *kedondong*, Moringa, *Konduru*, banana, thorn spinach, eggplant | | Around the residence | Father, Mother |
| 6  | Nuts       | Nuts Peanuts, long beans | Additional family income | Around the residence | Father, mother |
| 7  | Other      | Sugarcane, galangal, turmeric, ginger, lemongrass, *kencur*, star fruit, starfruit | Consumption and medicines | Around the residence | Mother |
Table 1b. The Munacommunity yard utilization patterns (*Kolambu*) (Continue).

| No | Food Group       | Planting time/ time to manage | Method/Business pattern                                  | Information                        |
|----|------------------|--------------------------------|---------------------------------------------------------|------------------------------------|
| 1  | Grains           | per 4 months                   | Irregular according to land availability                | Dry on land                        |
| 2  | Tubers           | Any time                       | Harvest and replant as needed                           | Harvest in turn                    |
| 3  | Livestock        | Any time                       | Released in the yard, on a wooden tree in the yard      | Serves as savings                  |
| 4  | Oil/fat          | Any time                       | Irregular, a bit far from the house                     | Supporting traditional activities  |
| 5  | fruits, vegetables | Any time                  | irregular, mix with other plants                       | Complete of consumption and social |
| 6  | Nuts             | Twice a year                   | Irregular, mix with corn crops                          | Support the family economy         |
| 7  | Other            | Any time                       | Irregular                                               | Complete of consumption and social |

3.2 Local wisdom of the Muna Community in yards utilization as a source of family food

Humans and their environment was an inseparable unit. Humans could influence and be influenced by the environment. This relationship will illustrate the level of knowledge of the Muna Community in utilizing and managing home plants. In addition to providing benefits for meet family food needs, food plants that were managed in the yard also require human action as an effort to conserve them. Indirectly, the Muna Community also carried out plant conservation, but it was not directly implied. The Muna Community will continue to preserve a variety of food plants used for their daily needs as well as for the benefit of traditional ceremonies and traditions from birth to death.

The use of homestead plants by the Muna Community was a form of knowledge discovered by the Muna Community through a collection of experiences in trying and integrated with an understanding of the culture and natural conditions of a place of residence. It made it possible to strengthen family food security which was more efficient and productive in the yard utilization [14,15] (Figure 2).

![Figure 2](image-url)
The Muna Community was a small island coastal community who has experience from generation to generation about the food their family needs. Based on the knowledge and experience of the Muna Community, there were several types of plants that were a source of energy and could be processed and stored for quite a long time, namely corn, tubers and taro. Corn and sweet potato were the staple foods of the Muna Community. Knowledge and experience about the types of plants that are the source of the body's supplement needs such as coconut, banana, papaya, moringa, konduru. The results of the research by the experts showed that the plants that the Muna Community always cultivated in their yards had a high nutritional content and were needed by almost people. The knowledge and experience of the Muna Community was obtained from the interaction with the environment in which they lived [16,17].

The results of the cultural interaction of the Muna Community, the natural conditions and the environment in which they live and the utilization of the yard around their house with various food plants, manifest family food security by achieving the fulfillment of food for their family. It was reflected in the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, evenly distributed, and affordable and does not conflict with the community's religion, belief and culture. Itmadethe people could live healthy, active and productive in a sustainable manner [18,19].

The utilization yard of the Muna Community is known as Kolambu. The Munacommunity utilized their yards with various types of food plants, with a mixed pattern and harvesting for family consumption as needed. The method of harvesting and harvesting food crop products was by alternating between harvesting and replanting or both of them. Therefore, family food sustainability is always maintained through the utilization of the yard around the family residence [15,16,19].

4. Conclusions
Based on the results of the research and discussion could be concluded as follows: (a) The yard of Muna Community is utilized by planting specific plants marked by Muna culture, which are a food source of carbohydrates, vegetable protein, minerals and vitamins around the house in mixed pattern with sustainable planting and harvesting, (b) The local wisdom of the Muna Community in utilizing their yard is called Kolambu, as knowledge that Muna Community has acquired through a collection of experiences in trying and integrated with an understanding of the culture and natural conditions of a place of houses. It makes it possible to strengthen family food security which is more efficient and productive in utilizing the yard.

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