Social culture in sustainable production and consumption of mountain community food products in Sinjai District, South Sulawesi

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Abstract. Socio-culture is increasingly recognized as an important part of sustainable community food production and consumption. This evolution is reflected in the fact that social culture is now generally referred to as one of the main drivers of the sustainability of food production and consumption. This study focuses on socio-cultural aspects in relation to food production subsystems and food consumption subsystems in mountain communities in Sinjai Barat District, Sinjai Regency, South Sulawesi Province. Using a qualitative approach, the case study method, with data collection techniques, in-depth interviews / in-depth interviews, full observation, documentation, and triangulation. So that you can see the social reality of the mountains deeply. The socio-cultural aspect is one of the supporting factors in the realization of sustainable production and consumption of food in mountainous communities. The socio-cultural component in the food production of mountain communities strongly emphasizes the value of togetherness, the value of mutual cooperation, and religious values. This value is implemented into food production activities ranging from land preparation to harvesting such as; "Appada Elo"; "Appatinro Bine"; "Passibaling"; "Ganre Pare Beru". The Socio-cultural component in the food consumption of the mountainous community also promotes religious values (a symbol of gratitude to the creator and closer to their ancestors), the value of togetherness (serving food to others as a form of respect and appreciation) and the value of prestige (types of food such as brown rice local varieties). These values are wrapped in community norms that are maintained for generations as an effort to maintain the sustainability of community food production and consumption.

1. Introduction
Food is closely related to human social culture [1]. Improving our understanding of the socio-cultural dimension of food security is increasingly recognized as an important part of sustainable community food production and consumption [2,3]. This evolution is reflected in the fact that social culture is now generally referred to as one of the 'main drivers' of the sustainability of food production and consumption within a conceptual framework [4-6]. However, despite the growing recognition, social culture remains often at the margins of discussions about the fight against malnutrition among policymakers and researchers [7].
Many policies related to the sustainability of community food production and consumption are well planned but fail because they do not consider the socio-cultural aspects of the local community [8]. Weaknesses are that the framework has not yet identified the social culture of the community as an aspect that affects food security, or how important its influence is on other factors in food sustainability. It has been widely recognized that culture is important, but the questions about what and to what extent it is important to remain largely unanswered. This vacuum may, to some extent, be related to difficulties in operationalizing and measuring concepts that are so comprehensive [7,9].

Changes in the environment also allow changes in the food system, both at the community level and at the household level [10]. Society tends to utilize social and cultural aspects in defense of ecological, social, and economic shocks [11]. Including utilizing knowledge in the context of local culture in meeting food needs [12]. This study, focused on the mountainous region in the district of West Sinjai, Sinjai district. The reason behind this study is the fact of food insecurity in the area, based on the results of the 2018 Sinjai District Food Security Office report. Many studies on food in mountainous areas have been carried out, for example, patterns of production and consumption of the community [12] and the independence of household food for the community [13]. However, there are no studies that focus on socio-cultural aspects in relation to food production subsystems and food consumption subsystems in mountainous communities.

2. Methods
This research was designed using a qualitative approach, a case study method. This method is used to be able to look deeply into the socio-cultural reality of mountain communities. Field data collection techniques are done in a convergent manner, in-depth interviews / in-depth interviews, observation, documentation, and triangulation [14]. In addition, this research is accompanied by FGD (Focus Group Discussion) discussions and field observations to better understand the real conditions that occur. There are two data sources, namely primary data and secondary data [15]. Primary data were obtained from the community and government at the village and sub-district level. The research unit is the mountain community. The target group is determined based on an introduction to field conditions and preliminary information that has been obtained from key informants.

3. Results and discussion

3.1. Socio-cultural components in mountain food production
A person’s behavior is directed by values that are in accordance with their culture [3]. Individuals who embrace values will influence production behavior. The production behavior consists of subsystems, namely land preparation, planting, crop maintenance, and harvesting. Based on the description of the food production process of the mountain community in the District of West Sinjai, it can be understood that the components involved in the food production system of the mountain community at the research location include values, kinship systems, and norms

3.2. Value
After conducting in-depth interviews from several informants, it can be understood that the values contained in activities related to the community food production process are the values of trust, togetherness, and mutual cooperation. As can be seen in the following table:

Table 1. Values and meanings/benefits some activities related to food production in mountainous communities

| Activities                      | Meanings / Benefits Some activities food production                                                                 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Appada Elo/Tudang Sipulung      | Symbol of community togetherness. All decisions taken in farming are decided through a process of deliberation to reach consensus. Togetherness becomes a value that is held in high esteem in |
community activities

Passibaling/help in the process of planting (Mutual Mutual Value)
Symbol of unity and cooperation. Planting work will take a long time if not carried out together / mutual cooperation.

Appatinro Bine and Ganre Pare Beru (Religious / Safety Value)
Asking for safety and implementing community gratitude for the success that has been achieved.

Some things that can be explained from the table above are that the values contained in the food production process of mountain communities include: the value of togetherness, the value of mutual cooperation, and the value of safety and religion. The value of togetherness is reflected in the gathering of people to discuss important matters in the production process that will be carried out. This meeting also produced an absolute decision that must be obeyed by the community as a form of obedience and togetherness.

The value of mutual cooperation is reflected in community involvement in the planting sub-system, which is often referred to as passiballing. It is realized that the activities carried out in mutual cooperation allow more rapid completion when compared to being carried out individually. With a relatively short planting time, can have an impact on the uniformity of plant growth in one stretch, so that the potential attack of plant-disturbing organisms can be minimized.

The value of safety and religion reflected in a series of ritual events carried out by mountain communities. Starting from the pre-tillage activities referred to as the "Mappatinro Bine" event until the event that is carried out after the harvest or after all the products have been in people's homes is called the "Ganre Pare Beru" event. Mappatinro Bine is a ritual carried out by the community as a request/prayer of the community so that they are given safety in the production process and ask that the seeds they sow and the plant can provide maximum results. While Ganre Pare Beru is a ritual carried out by the community as a thank you / gratitude for safety in carrying out the production process and the plants, they cultivate get good results.

3.3. Kinship
The kinship component and social organization also play an important role in the food production system of mountain communities. The kinship system related to the food production process is shown in table 2 below:

Table 2. Stakeholders involved in a number of mountainous community food production activities in West Sinjai District Sinjai Regency

| Activities      | Stakeholders                                      | Informants' understanding of the activities and parties involved |
|-----------------|---------------------------------------------------|---------------------------------------------------------------|
| Appada Elo/Tudang Sipulung | Village Heads, Agricultural Extension Workers, Community Leaders, Farmer Groups, Gapoktan, P3A, fertilizer retailers | This activity is carried out by the local government (village) assisted by local agricultural instructors. |
| Land Management | Family, Agricultural machine tool services.        | If the farmer is able to rent or buy, he can use the Hand Tractor, but if he is unable, the land management is carried out traditionally. |
| Planting        | Farmer groups/residents, family members           | The more people/communities who plant rice, the faster it is finished, so that plant growth will be uniform. |
Plant Maintenance
Each family
Weeding, pest observation, pest control, and fertilization are carried out by each landowner.

Harvest
Each family,
More and more family members are involved in the process of harvesting, so the sooner it is finished.

The kinship system for the community at the study site is a family that originates from blood relations or is based on marital relations. The more the number of productive family members, then there is a broad tendency of arable cultivation to be wider. Both the arable land is owned by itself and the land owned by someone else who is capable. A large number of family members also affects the working day used in the food production process. Usually, after completing one of the production sub-systems, the people in the research location tend to move to other commodities or businesses in other sectors, such as livestock farming or growing vegetables on dry land and yards.

3.4. Norm
In social life in each region, there are no norms [16-18]. Norms are unwritten rules that are considered noble and sacred to the people in the research location. Norms that exist in mountain communities in the production system are closely related to the rules that can and may not be done by the community when the production process takes place. The norms or rules that apply can be seen in the following table:

| Norms / Rules | Informants' understanding of Norms |
|---------------|-----------------------------------|
| It is forbidden to eat while planting | So that plants planted by the community are not attacked by pests and diseases |
| Hot water is not allowed to be spilled on the ground | So that plants that are planted grow fast and are not attacked by pests. |
| When plants are in the process of developing generative women who are menstruating are banned from the planting area | So that plant development is not interrupted, and the results obtained do not shrink. |

There are three types of norms that still apply to community food production activities. The three norms are prohibitions that, when violated, the people in the mountainous area assume that there will be a failure in production activities. These three norms are closely related to pests and diseases that will attack plantations. The results of interviews with the Informant, that:

“…what, we are very afraid of in the production process is crop failures caused by pests. Many farmers fail to harvest because their crops are attacked by pests. We do not know, suddenly plantations are attacked by pests, and we sometimes do not know what the cure is. We have tried to spray it, but there are certain pests that are resistant to the drugs we give.

Because of this concern, some farmers in the Lembanna hamlet and all farmers in the peak hamlet, Leppa stone and Bonto Mania only plant local rice / red rice....”

Local variety / red rice is a variety that has been traditionally cultivated by the people in Gunung Perak. This variety is very resistant to pests and diseases. Almost every year, there are no pest attacks that attack this variety. But because of its long/long life and cold climate, the age of this plant is very long, around 8 to 9 months of one production cycle.
3.5. Socio-cultural components in mountain food community consumption

Individual attitudes are generally based on the values they hold to make relevant decisions. The role of food in culture is an expressive activity that strengthens relations with social life, sanctions, religion, economics, science, technology, and its various impacts. In other words, eating habits or eating patterns do not merely overcome the human body, but can play an important and fundamental role in the characteristics and nature of society [4]. As the basis for fulfilling their food, the mountain community at the research location always considers the value, knowledge, and other components that are interrelated with one another.

3.6. Value

For certain people, the type of food or food ingredients has a certain value. Therefore, people will consume certain foods or foods that are considered valuable even though they are often not in accordance with the nutritional value. The following are values and the meanings of some of the activities carried out by mountain communities associated with food consumption.

**Table 4.** Value and meaning of informants on mountain food community consumption in Sinjai Barat District, Sinjai Regency

| Food Consumption Activities / Values | Understanding / Meaning of information on the value of food consumption |
|------------------------------------|------------------------------------------------------------------------|
| Thanksgiving after finishing doing something that is considered important (harvest, marriage, etc.) (Religious value) | The event was held as a manifestation of gratitude to the Almighty for the implementation of the celebration/activities safely and successfully. Thanksgiving is also a way for people to remember their ancestors. |
| Serving Food for Visiting Guests (Togetherness Value) | Symbol of humanity and togetherness. The community feels very embarrassed if they do not serve food to guests who visit. |
| Presentation of Brown Rice, Songkolo and Chicken (Prestige value) | This type of food is a must-have menu for certain events, such as thanksgiving. |

The value in people's food consumption is reflected in the activities carried out and the types of food they consume. These activities tend to be based on existing values and life in society, namely religious values, the value of togetherness, and the value of prestige.

The religious value is understood by the people in the event, which is held as a thanksgiving to the creator for all the blessings, the gifts that are as high as all the wishes they wish to achieve. This religious value also functions as a means for mountain communities to give thanks to their ancestors for all their knowledge and knowledge that has been inherited. The mountain community considers, if a thanksgiving event is carried out by burning incense made of hazelnut, then their ancestors came and participated in watching the event.

The value of togetherness which is realized in the form of serving food for visiting guests. These guests, both from the local area, family, and from outside the area. This presentation is done with a view to being able to respect visiting guests. Because people feel very embarrassed if they do not serve food or drinks to these guests. The informant that was met explained that:

"...We here always serve food to guests who visit, this we have done for a long time, starting from our grandmother. It used to be very difficult to walk here and take a long time so that every guest or family who visited was always served food. This has become our culture for generations. There is a feeling of shame if we don't give anything when someone comes..."

Prestige Value, the type of food that is considered practice for mountain communities, including red rice, songkolo (glutinous rice), and chicken cooked with certain dishes (Nasu Likku). Brown rice
or brown rice is valued as a sacred staple meal for mountain communities. Because it is a legacy for local people. It turns out that this condition is not only found in research sites. As stated by Khumaidi (1989) that in many societies in Indonesia there are attitudes of people/communities who place the staple food as sacred (holy) and it is also exemplified that rice: as a symbol of a gift from Dewi Sri (slogan: rice is like, the more contained, the more ducking). Songkolo (glutinous rice) is a symbol of intimacy and unity so that every time there is a mandatory event, this snack is served. As for chicken (nasu likku), as a symbol of the economic status of the community. More and more chickens are sliced, indicating the higher economic status of the community. Other foods such as corn, tubers, and bananas do not give special meaning but are only placed as ordinary food and reinforcing solidarity among residents.

3.7. Customs, norms, and beliefs
Customs, norms and beliefs in mountain food consumption activities are interconnected with values in society. As seen in the following table:

**Table 5.** Customs, Norms, and Beliefs in the Food Consumption of the mountain community in the District of West Sinjai, Sinjai Regency

| Customs, Norms, and Beliefs                                      | Community understanding/understanding of Customs, Norms, and beliefs                      |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Sit while taking rice in the rice container                      | As a symbol of appreciation for rice which is one type of food that is sacred            |
| Pregnant women should not use large cutlery and may not eat at the front door | Believed to be difficult to give birth.                                                   |
| Eat food when eating                                             | So that food is not wasted because if you throw away food, worry that one day you want to eat, but there is no food |
| Must not eat directly from a pot or pan                          | If you eat in a pan or pan, it is worried that your offspring will become naughty and find it difficult to hear advice from parents. |

The culture of the community in expenditure on agricultural products they obtain can be grouped into four parts, namely expenses for food/consumption, expenses for land rent, expenses for equipment used, and expenses for traditional events such as Sukur/salvation [19]. Traditions/customs, norms, and beliefs related to the consumption of the above mountain communities become unwritten rules and are guided by the local community. Example; Retrieval of rice in "Pa'berasseng" (place of rice) in the form of containers made of cans or clay. Whoever takes the rice to cook must sit. This is done as a form of appreciation for rice, which is valued or believed to be a sacred food. This tradition or food norm also applies to ethnic Bugis in Bone and Mamuju Regencies [20]. The tradition of not remaining food when finished eating is one of the taboos that is quite rational because besides valuing the food also avoids waste.

4. Conclusion
The socio-cultural aspect is one of the supporting factors in the realization of sustainable production and consumption of food in mountainous communities. Food in the socio-cultural view has a broader meaning than just a source of nutrition. This is related to trust, status, prestige, solidarity, and peace in people's lives. The socio-cultural component in the food production of mountain communities strongly emphasizes the value of togetherness, the value of mutual cooperation, and religious values. This value is implemented into food production activities ranging from land preparation to harvesting such as; "Appada Elo", "Appatinro Bine", "Passibaling", "Ganre Pare Beru". The Socio-cultural component in the food consumption of the mountainous community also promotes religious values (a symbol of gratitude to the creator and closer to their ancestors), the value of togetherness (serving food to others
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