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# *Mekambare As a Former of Social Solidarity in Supporting Food Security in Sustainable Agriculture Management in East Kolaka Regency*

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### A B S T R A C T

This research investigates the Betangas tradition's cultural significance among the Sambas Malay population in West Kalimantan, employing a qualitative approach. Originally tied to wedding celebrations, Betangas, aimed at reducing body odor, has evolved into a grooming practice for couples. Passed down through generations, it remains a resilient local wisdom in Sambas, reflecting gratitude to Allah and aspirations for a prosperous married life. Concurrently, in East Kolaka Regency, Mekambare emerges as a pivotal element in ensuring food security. Through qualitative methods, the study reveals a surplus in grain production attributed to farmers' mutual assistance and the use of organic fertilizers. Mekambare fosters social solidarity among lowland rice-farming communities, promoting cooperation and support to meet food demands. Its sustainable agricultural practices, such as natural predator utilization and integrated weed control, contribute to ecosystem balance. This research underscores the dual importance of preserving cultural traditions and local wisdom, exemplified by Betangas and Mekambare, in maintaining community identity and addressing contemporary challenges, thereby making positive strides towards sustainable food security.

### INTRODUCTION

This study focuses on how local wisdom in East Kolaka Regency, called *Mekambare*, contributes to promoting sustainable agriculture and ultimately food security. Along with the growth of development in the era of modernization and globalization, East Kolaka Regency is facing challenges related to food security. Climate change and environmental degradation have threatened global food sovereignty, including in this region. Fortunately, the rice farming community in East Kolaka Regency has *Mekambare*, or local wisdom, which can create collective awareness and social solidarity in the

community and is utilized in agricultural management. Food security and environmental protection are two crucial areas where sustainable agriculture can contribute to the advancement of sustainable development on a global scale (Singh, 2020; Singh & Naik, 2023). The former is one of the most pressing issues facing the world today, as it concerns various challenges that affect humans' ability to adequately meet their food needs. It is built on four important pillars: availability, access, utilization, and stability as an integral part (FAO Food Security Programme, 2008; Nosratabadi et al., 2020). Global challenges such as changes in agricultural land and land use patterns, sustainable agricultural policies, climate change, environmental degradation due to environmental

pollution, and several social and economic problems are currently affecting the sustainability of agricultural systems (Concepción et al., 2008; Jatav et al., 2022). Extreme weather, unstable rainfall patterns, and drought may also affect food production in the community. Other changes associated with these, such as extreme weather, unstable rainfall patterns, and drought, may also affect food production in the community. Unstable weather conditions, for example, can potentially result in decreased agricultural yields, crop losses, and even the loss of agricultural resources. Additionally, the steadily rising rate of global population growth may have an impact on food security. The growing population entails a higher demand for food, and as a result, food production capacity needs to be considerably increased. As such, the high demand results in the uncontrolled use of chemicals to support agricultural productivity.

Another issue faced is the environmental degradation phenomenon, where deforestation, soil erosion, and pollution also pose a threat to the sustainability of food and agricultural systems. Loss of arable land and reduced quality of soil limit the ability to produce sufficient and quality food. The transformation of agriculture as well as the sustainability and food security of families are so urgent that actions that consider the ecological function of the environment and intensify appropriate practices need to be developed (Trap & Blanchart, 2023).

A growing body of research has been done on sustainable agriculture. The study of sustainable agriculture now encompasses serious issues such as environmental and geochemical deterioration (Akram et al., 2021), agricultural growth and intensification (Tian et al., 2021), social inequality, and economic instability (Hu et al., 2023). Nonetheless, research on the involvement of local communities and traditional farming practices is scarce. This paper reveals a phenomenon—culturally based sustainable agriculture—that arose from the "grass roots."

The practice of sustainable agriculture among local communities has been passed down from generation to generation. Spiritual values such as respect for the earth (land) lead to wise management of agricultural land. Agricultural patterns that are integrated with local culture save resources while protecting the environment. Farmers are members of a community that has the same understanding of the importance of land for farmers' lives. They developed information network patterns and groups that could share time and energy in cultivating agricultural land "manually" without chemicals. Sustainable agricultural management is an approach to long-term food security aiming to maintain agricultural productivity, minimize negative impacts of agricultural cultivation on the environment, and ensure access to sufficient, safe, and nutritious food for ecological sustainability and human life. It gives emphasis to the

importance of using environmentally friendly and sustainable cultivation techniques and practices. That is, the hazardous chemicals are reduced in favour of the development of organic or natural methods for cultivating agricultural land so as to be able to create a competitive agricultural environment. By so doing, sustainably managed agriculture has a negligible adverse impact on the environment and human health. This is based on the notion that humans and the environment are an inextricable ecosystem. Basically, the community and the environment in which they live have an interrelated relationship; both interact with each other. In the process of interaction, individuals often adjust to their surroundings, which necessitates the adoption of particular behaviours (Jannah et al., 2020; Jers et al., 2021). In achieving community food security and safety, the active role and social solidarity of the farming community are significant factors to take into account, starting with paddy rice farmers in East Kolaka Regency. This is due to the fact that rice is a dietary staple with strategic value and that it demands superior handling inputs (Arimbawa et al., 2021; Arini et al., 2018). Crop failure threats and pest and disease disruptions are issues that must be resolved, and thus a social mechanism built on mutual agreement such as the use of local wisdom is required (Dewita, 2022). The culture and local customs of farming communities can provide new hope in agricultural management amidst the onslaught of technology and advances in agricultural systems.

Sustainable agricultural management requires shared commitment and social consensus (Oni, O. A., & Fashogbon, 2013). *Mekambare* as a gotong-royong activity that reflects the spirit of community unity in sustainable agricultural systems plays an important role and practices sustainable agricultural systems and food security collectively in the community, especially rice farmers. Farmers' crops have been distributed throughout the Southeast Sulawesi region and even on the island of Java. Thus, *Mekambare* has proven as a culture that has a wise value for sustainable food in Indonesia.

It reflects the embodiment of *Gotong royong*, which is a typical Indonesian culture that emphasizes high solidarity between individuals and groups to achieve common interests in both social and economic aspects (Natuhara, 2013). With *Mekambare*, farmer collaboration and social engagement are strengthened to overcome challenges in attempts to attain food security. While this practice has long existed in the lives of traditional agricultural communities, a deep understanding of its significance in fostering social cohesion and its impact on food security is still underrepresented in the literature. Therefore, this study aims to fill this knowledge gap by analyzing the role *Mekambare* plays in establishing social solidarity and the impacts it has on food security in sustainable agricultural management.

With a solid understanding of the practice of *Mekambare* and the social solidarity associated with it, this study may provide new insights on how it can be applied effectively in the context of sustainable agricultural management. This research is expected to contribute to the development of policies oriented towards social solidarity and food security mechanisms in the context of realizing sustainable agricultural management, ecological sustainability, and the welfare of agricultural communities.

Betangas tradition is a cultural heritage that must be preserved. Then related to the study that will be carried out, the researcher will formulate problems regarding tradition. 1) the meaning contained in the, 2) steps taken in tradition. As for research that is relevant to this examination, it has been carried out with the title "Vocabulary in the Betangas Tradition of the Malay Community of Sungai Raya Village, Bengkayang Regency: Semantic Study". The findings of the investigated results, namely vocabulary in the implementation of the Betangas tradition with the aim of obtaining lexical meaning, cultural meaning and, function of the vocabulary of the process of implementing the Betangas tradition. The explore findings, namely vocabulary in the process of implementing the Betangas tradition with the goal of gaining lexical meaning, cultural meaning, and function of the vocabulary of the process of implementing the Betangas tradition. This is because in its implementation it uses native speakers from the Sambas Malay tribe regarding the presentation found in the Malay community in Sungai Raya. This is due to the employment of native speakers from the Sambas Malay tribe in its implementation of the presentation seen in the Malay community of Sungai Raya. However, this study did not conduct an examination on the value of each process. As for this study, the findings were obtained, namely the social value of life contained in the implementation of the Betangas tradition in the Malay community in Sungai Raya from the various stages. The Betangas tradition is a tradition carried out before the wedding, in a research study by<sup>1</sup>, the Betangas tradition is a steam bath with boiling water complete with various plants such as citronella, pandan, cloth, mats, and other equipment.

Furthermore, in investigated by <sup>2</sup> with a study topic, namely the identification of steam baths in the archipelago with a background in the Malay community. The results of this study are that the people of West Kalimantan are the districts that have the most to preserve the Betangas tradition. The limitation that differentiates

<sup>1</sup> Sindi Yuniar M. Basri, "Betangas Pada Adat Perkawinan Masyarakat Palembang Di Desa Payakabung Kecamatan Indralaya Utara."

<sup>2</sup> Y. entari, G., & Yuhaswita, "The Spread of 'Tradisi Mandi Uap' as a Track Identification of Spices in Indonesia.," *Indonesian Journal of Social Science Education (IJSSE)*, 4(1), (2022): 40-50.

this exploration from this study is that this research traces the history and procession of the Betangas tradition from various areas inhabited by the majority of the Malay community. The examination was carried out by tracing documentation or literature studies. Whereas in this study the meaning, and procession of customs to high social values in the Sambas Malay community in West Kalimantan province in the implementation of the Betangas tradition. Moving on from these things the purpose of this study is to be carried out.

## METHOD

This study employed a qualitative research method to examine the cultural activities of a community group (Bungin, 2008). To achieve the objectives of this research, the study's subjects were determined purposefully with adequate criteria. We determined agricultural activities based on local culture, including management of agricultural land in groups, use of organic materials, knowledge of seeds, planting times, pests, weeds, and irrigation. The farmers included in this study were those who had been rice farmers for more than 5 years, owned rice fields, carried out traditional farming, and had local understanding and beliefs in the world of agriculture, such as *Mekambare* and *Sanggoleong Mbae*. By and large, these were farmers whose livelihoods are completely dependent on agriculture.

This study employed a qualitative research method to examine the cultural activities of a community group (Hadi, 2000). The lowland rice farming community in East Kolaka Regency (hereafter simply written as East Kolaka) is a society that has a cultural system of working together in agricultural activities. In particular, the local wisdom of *Mekambare* is placed as a social glue in the social environment of agriculture. The data collection was carried out through observations, interviews, and document studies. To test the credibility of the existing data then triangulation is carried out (Arikunto, 2002; Maleong, 1989; Sugiyono, 2008). The researchers directly observed the activities of lowland rice farming communities in establishing a food security system based on the *Mekambare* principles. Relevant events related to the system were recorded and documented using tape recorders and cameras. Following this, open and in-depth interviews were conducted through focus group discussions to obtain more detailed information from informants. We reduced the bias in our research by repeatedly observing the activities of farmers. In ten subdistricts, we saw multiple farmers, and we compared these observations. We also contrasted the findings from in-depth interviews with those from observations. The next step involved the analysis of the data collected from observations, interviews, and the study of documents, following Miles and Huberman's technique of data analysis. It started with data reduction, in which data

were sorted and categorized using abstraction techniques, followed by data display and verification, and drawing conclusions afterwards (Sugiyono, 2008).

## RESULTS AND DISCUSSION

In East Kolaka Regency, the lowland rice farming community adopts social practices to manage agricultural ecosystems. Their farming activities reflect the knowledge and cultural values they hold. One of the local cultural wisdoms which serves as the social glue in agricultural activities is *Mekambare*. This local wisdom becomes the strength of the community in facing social change, including as an important instrument in maintaining the stability of food security. This local knowledge becomes the community's strength in dealing with societal change, serving as a key tool in preserving the stability of food security.

### 1. Sustainable agricultural practices based on local wisdom of *Mekambare*

The term *Mekambare* refers to the principles of *gotong royong* (mutual cooperation), in which all the members of the community support one another in the production, distribution, and consumption of food. For the people of East Kolaka, the practice of it serves as a social dimension that binds all layers of individuals in their society that are diverse. It plays a significant role in a sustainable food security system by ensuring that there is enough food available for all members of society. It does so by entailing solidarity and collaboration between farmers, consumers, producers, and, to some extent, the government to collectively strengthen the network of food security systems. An example of how it is implemented is when farmers form agricultural groups through which they gather to plant, tend, and harvest crops. The farmers believe that the activities they carry out together will have a positive impact on the sustainability of their agricultural ecosystem. For them, if individuality is prioritized, the maximum results are hardly achievable, and the completion of work takes a long time. Each is committed to sharing knowledge, resources, and technology to increase the productivity and quality of agricultural produce. This is illustrated by an informant in an interview in the rice fields in Laloea Village.

*"Working in the fields requires us to cooperate and assist one another. This rice field covers an area of 2-5 hectares, which is large, and it is managed by several farmer groups. Collaboration between us as farmers are needed so that we can finish a task more quickly. Usually, when clearing land, planting, keeping pets, or eradicating pests, we have to work together so that the results can be maximized. When we work together, it is our opportunity to exchange information or share feelings and experiences, as well as agricultural equipment. So, the principle of*

*cooperation and togetherness is very important, and we benefit from it" (interview, June 20, 2023)*

The interview implies that the principles of cooperation in communal work and togetherness can form social awareness in agricultural activities. Farmers in East Kolaka benefit directly from this cooperation, such as by saving energy and time, improving crop quality, and having opportunities to learn and grow together. Accomplishing one unit of activity by gathering allows the farmers to learn from each other as a collaborative forum (Arimbawa, 2013), and social solidarity among them is formed accordingly. Collaboration and solidarity between farmers are the foundation that strengthens agricultural sustainability and increases their collective welfare (Koentjaraningrat, 2015).

As far as food distribution is concerned, *Mekambare's* local wisdom encourages collaboration between the lowland rice farmers in East Kolaka Regency as producers and consumers to organize an efficient and fair distribution system. For example, they form cooperatives or joint business groups to manage the marketing and distribution of agricultural products. Thus, they can gain wider access to marketing and get better prices for their agricultural products. Through this collaboration system, *Mekambare* helps reduce the gap between farmers and consumers and ensures access to more equitable and affordable food.

The conceptual framework of this research is based on the concept of *Mekambare* (mutual cooperation) as a foundation for social solidarity that influences food security in the context of sustainable agricultural management in East Kolaka Regency. In this case, the theory of mutual cooperation is the main pillar that combines community cooperation, mutual assistance, and togetherness in resource management and food production. *Gotong royong* symbolizes a spirit that is reflected in individual behavioral actions carried out with the aim of working together between various parties for the common good.

Furthermore, *Mekambare* entails cooperation between the government and members of the farming community in order to bolster the system of food security. The government assists with infrastructure and grants farmers access to resources. Besides, the local government encourages farmers to make decisions regarding the farming techniques or methods applied. However, the government's role remains as a companion and facilitator through the empowerment of farmer groups. This solidarity creates a mutually supportive framework between the government and the lowland rice farming community in East Kolaka Regency in an effort to achieve

food security through a sustainable agricultural management system.

## 2. Maintaining food security through community social solidarity

Social solidarity plays an important role in shaping the character of sustainable farmers. It is not only a key aspect of sustainable agricultural practices but also a force driving positive changes in farmer behavior and attitudes. In Indonesia, traditional farmers have created solidarity through mechanical means (Tiffan et al., 2023). Aspects of family, culture, and religion serve as the foundation for solidarity with farmers (Rusdi et al., 2020). Social solidarity is more than simply cooperation and teamwork among farmers; it also encompasses attitudes and behaviors that are based on the values of resilience and environmental protection. In the context of sustainable agricultural management in East Kolaka District, social solidarity is considered a force that drives positive changes in farmer behavior. Through this bond of social solidarity, traditional agricultural practices that have become part of their local culture can be renewed and revived.

One key element of social solidarity in agricultural management practices in East Kolaka Regency is respect for local wisdom. *Mekambare*, as a legacy from the past in the agricultural culture of the farming community in East Kolaka, has indirectly become a source of food strength and an instrument for driving environmentally friendly agricultural management. Social solidarity makes farmers aware of and appreciate local cultural values and applies them to their agricultural practices, such as when selecting superior seeds and selecting planting times according to the local knowledge of farming communities. Many of the farmers we interviewed indicated that togetherness is an important aspect of food security, as one farmer put it.

*"To get maximum yields, we have to have a high level of togetherness. To ensure food security, we need to uphold an attitude of solidarity with one another. Togetherness and solidarity are a must in our agriculture today." (Interview, June 26, 2023)*

Social solidarity among the farming community in East Kolaka Regency, as expressed by the interviewee, is seen as being able to reinforce the identity of farmers and generate a sense of pride in their farming culture. Other farmers confirmed that a means of social bonding was necessary so that a sense of belonging to each other would grow, which would eventually create a good food environment. These imply that lowland rice farmers in East Kolaka District recognize the significance of their contribution to preserving environmental sustainability and maintaining food security in a community where people support and trust one another.

Through social solidarity, farmers not only consider personal benefits but also the common interest in protecting the environment and achieving sustainable food security. Social solidarity is an important instrument in shaping the characters of farmers who care about the environment and are ready to take responsibility for maintaining agricultural sustainability. For this reason, social solidarity formed through sustainable agricultural practices can encourage positive changes in farmer behavior, which is a crucial step in maintaining food security in East Kolaka Regency in the long term. With such attitude and character, the values of farmer solidarity are harnessed to develop collective awareness of the importance of revitalizing conventional agricultural practices that rely on chemicals to return to nature in the form of environmentally friendly agriculture.

## 3. Role of *Mekambare* as the Basis for Agroecological Management

Conventional agricultural practices that are rife have caused many problems for humans' health and food safety. Efforts to change conventional farming systems to environmentally friendly practices based on agroecology have been the subject of many studies (Godfray et al., 2010; Tittonell, 2014). The agroecological approach makes use of ecological concepts to develop sustainable agricultural systems. It puts emphasis on the importance of maintaining the balance of agricultural ecosystems by trying to reduce dependence on the use of synthetic chemicals as well as prioritizing biodiversity, organic methods, and traditional knowledge. Campaigns for biodiversity conservation in agriculture have now become an important global agenda item (Kittur & Sundar, 2021). The main goal of agroecology is to produce healthy and quality food while maintaining environmental sustainability.

In the context of agroecology, the lowland rice farming community in East Kolaka Regency adopts environmentally friendly methods and respects the balance of the ecosystem. The principles of *Mekambare* inspire them to jointly use natural fertilization by working together to collect materials and then concocting them to collectively produce fertilizers in the rice fields. To improve agroecological sustainability, they also practice natural pest management. For instance, they protect the presence of storks that inhabit the area surrounding the rice fields as natural predators as part of their sustainable lowland rice farming practices. This information was elicited from interviews with paddy rice farmers, who assumed that a fertile and healthy paddy field environment requires the adoption of environmentally friendly farming techniques and a good understanding of existing resources. As a farmer said.

*“There should be good actions for healthy agricultural management. We maintain plant fertility by utilizing organic materials. For this, we make organic fertilizer from livestock waste, we raise cows in the harvested rice fields. We also raise other livestock such as ducks to support our income and of course the manure can be directly absorbed by the rice fields. To eradicate pests there are storks that also eat animals or insects that disturb plants. Decaying rice straw can become humus which fertilizes plants. So paying attention to the preservation of the natural environment is important to get good and healthy rice yields.” (Interview, June 26, 2023)*

It is revealed from the excerpt of the interview that farmers in East Kolaka have the understanding and knowledge that the presence of these cranes can help reduce and suppress pests and insects, such as crickets, that threaten the growth of paddy crops. In addition, they use manure from cows that are raised around the rice fields as a source of organic fertilizer. This step is seen as an environmentally friendly effort to support the capacity of community food security. Hay harvesting and livestock grazing can provide direct access to prey targets for several bird species, including storks (Roy et al., 2012). Storks benefit from the method of cutting straw or grass because it makes it easier for them to catch prey (Golawski & Kasprzykowski, 2021).

The methods in the *Mekambare* culture and agroecological practices applied by the lowland rice farming community in East Kolaka Regency are concrete steps in achieving sustainable agricultural management. Not only are these practices able to maintain the balance of the agricultural ecosystem, but they also produce healthy, quality, and sustainable food. By using organic fertilizers, applying traditional knowledge, and utilizing natural ecosystems, the farming community in East Kolaka Regency plays an active role in preserving the environment and supporting agroecology as the basis for a sustainable agricultural approach.

#### 4. Form of *Mekambare* and Its Impact on Supporting Food Security

In the social milieu of farming communities, the call for mutual cooperation in the food supply is quite strong. There is a collective awareness ingrained in the rice farming community that is tied to long-term food security and is grown through bonds of social solidarity that are formed as a common strength in facing challenges.

The values of mutual cooperation ingrained in *Mekambare* are embodied in all facets of social life. Because farming communities adapt to their environment, they become more sensitive to social issues. As a result, the

culture of cooperation that was initially practiced in cultivating rice fields ultimately evolved into a system of tolerance and care. *Mekambare* is not solely concerned with exchanging tangible resources, such as labor aid for work or agricultural implements, but has also developed the traits of sustainable farmers. This means that farmers' beliefs, opinions, and deeds are consistent with their commitment to environmental protection and long-term food security. The forms of *Mekambare* practiced by the farming community in East Kolaka take the form of collectively processing agricultural land, sharing expertise and technology, and promoting food.

##### a. *Mekambare* for Processing Agricultural Land

*Mekambare*, as a culture of communal work in processing agricultural land, is a traditional practice that has social, economic, and environmental values that are necessary to establish a sustainable food security system. In the practice of it, the farming community forms a collective awareness to work together to carry out agricultural activities such as clearing land, plowing fields, planting seed, and harvesting crops. This implies that the farmer members who are involved in cultivating other people's fields provide energy assistance to work together. This is due to their strong willingness and sense of shared destiny, which have evolved into a cultural force for embracing change.

Since the beginning, they have learned to adapt to living side by side with all agricultural environmental conditions. They hold the belief that nature has the same soul as humans, so caring for nature is the same as caring for ourselves. Such a belief represents the ethics of the universe in the context of cosmology: that nature is like humans and both have a reciprocal relationship and an active life. These farming communities adopt it as the basis for their traditional agricultural practices by treating rice plants as objects of great value, worth, and significance. The same view is also found in the indigenous people of Dayak Tamambaloh, who perceive the world as a harmonious place where people may coexist with nature and the supernatural (Efriani et al., 2019). The practice of traditional agriculture can be a method for preserving and maintaining ecosystems (Moonen & Marshall, 2001). It is revealed from the interviews that the farmers recognize *Mekambare* as a means for farmers to be able to provide each other with information regarding the agricultural conditions they are currently facing. As a farmer admitted.

*“Rice plants are the most important things for farmers, so they must be treated very well to get good results. Time when cultivating rice fields becomes an opportunity for us to work together. We are aware it is important to keep the quality of rice plants, and we believe in Sanggoleo Mbae, the rice goddess. This is not only a spirit but a strength to*

*be able to do better for nature, especially rice fields.”*  
(Interview, June 21, 2023).

The idea of glorifying rice plants has created a strong culture of environmentally friendly behavior among the rice farming community. The farmers of Mekongga ethnicity who make up the farming community in East Kolaka are among those who hold such an idea. As previously mentioned, these farmers are influenced by the credence given to a rice goddess, Sanggoleo Mbae, whom they believe to be the incarnation of a god to teach farming techniques and maintain the fertility of rice plants. It goes that if they treated the rice plants with respect, they would be blessed with a bountiful harvest. In contrast, if they violated environmentally friendly principles or damaged nature, it would make Sanggoleo Mbae angry and thus curse them with pest outbreaks or even crop failure. For this reason, the conception of the rice goddess turns into a crucial management tool for farmers when developing their agricultural area.

The belief in Sanggoleo Mbae and its impact on crop yields has formed a strong environment-friendly behavior among lowland rice farmers in East Kolaka. It develops their sense of spiritual connection with nature. Further, it affects their practice of *Mekambare* in agricultural processing by making them feel obligated to preserve the natural world and refrain from activities that can infuriate Sanggoleo Mbae. They try to adhere to environmentally friendly rules and principles in the management of agricultural land, such as using organic, integrated pest control, and wise water management. This suggests that for the lowland rice farmers in East Kolaka, the culture of *Mekambare* not only serves as a social glue but also as a reminder to use environmentally friendly practices while processing agricultural land. The belief in Sanggoleo Mbae and environmental-friendly behavior are important factors in building a harmonious relationship between humans and nature. They feel they have a moral responsibility to maintain soil fertility and the balance of the agricultural ecosystem.

The sustainable agricultural practices in East Kolaka have benefited from the farming community's culture of eco-friendly behavior. Farmers are motivated to use sustainable agricultural methods by their traditional values. Instead of dangerous chemical fertilizers, they utilize organic and natural fertilizers. Additionally, they use natural predators like storks, ducks, and frogs to eliminate pests naturally. Apart from these benefits, the eco-friendly behavior of the farmers contributes to the revitalization of the culture of farming practices in East Kolaka. The lowland rice farmers make their traditions and beliefs the foundation for building a sustainable farming system. *Mekambare* practices, mutual cooperation, and respect for the rice goddess are integral parts of their cultural identity. This not only enriches their cultural

heritage but also provides clear direction and goals in efforts to maintain food security and people's welfare.

### *b. Mekambare for knowledge transfer*

A crucial component of managing agriculture sustainably is knowledge. Communities of farmers in East Kolaka Regency are knowledgeable about supporting sustainable agriculture locally. Through the *Mekambare* culture, the lowland rice farming community creates a space for mutual interaction and the sharing of knowledge, with the aim of creating an efficient and competitive agricultural environment. The process of transferring knowledge within farmer groups plays an important role in maintaining the sustainability and food security of the community. This knowledge is the result of the adaptation and experience of farming communities in managing their agricultural ecosystems. Its presence provides opportunities for communities to face environmental challenges and create culturally and ecologically sustainable agricultural systems. Interviews with farmers indicated that *Mekambare* is used as a space for interaction and information sharing about the agricultural sector. This is acknowledged by a farmer.

*“We share information when working together in the rice field. We take this opportunity to exchange information, experience, and knowledge with one another. We interact with each other to receive suggestions, considerations, and ideas related to superior and useful farming methods.”* (Interview, June 26, 2023)

*Mekambare* culture has innovated as a sustainable food and agriculture movement by farming communities, strengthened by the East Kolaka District Government with the mission of Agriculture in building sustainable food security. by building a food warehouse procurement so that the grain of rice farmers does not have to be sold to get additional economy, but provides capital assistance for organic rice management as a form of a sustainable food system. The government's efforts to increase the amount of food in East Kolaka by building the Ladongi national dam in Ladongi District which can irrigate 2212 ha of rice fields in East Kolaka. The sustainable agricultural system carried out by *mekambare* between farmers, consumers, producers and the government has increased food availability with a very strong social network

This space allows them to voluntarily share knowledge and experiences and become receptive to learning from one another. The farmers also receive valuable input from the extension workers regarding methods or techniques to develop organic farming. Farmers across the districts of Lambandia and Ladongi, for example, have benefited from extension. Various types of knowledge acquired are used as capital for ideas in

building a potential agricultural environment and become a key factor in efforts to establish food discipline, from the regularity of organic fertilizer application to disciplined rice nurturing.

The farmers' adoption of the environmentally friendly farming model is inextricably linked to their process of absorbing and adapting to environmental changes. This adaptation leads these farmers to return to nature by utilizing the resources and potential around them as natural nutrients for the rice plants they grow. The interaction between farmers and their environment makes them aware of the importance of creating healthy and sustainable food. Therefore, agricultural practices using hazardous chemicals are seen as a real threat that must be abandoned and returned to natural farming as a strategy to maintain food resilience.

The local knowledge at the farmers' disposal enables them to cope with challenges in agriculture and establish a sustainable agricultural system. The *Mekambare* of knowledge means that the farmers harness the knowledge in the wake of collective work in agriculture to optimize their ability to manage the agricultural ecosystem that is superior and has high bargaining power as a result of implementing environmentally friendly agricultural practices.

### c. *Mekambare* for food

The local wisdom of *Mekambare* that pervades the farming community in East Kolaka is one of the important pillars in maintaining community resilience. Because of it, the people in this region form strong bonds of social solidarity in which they support each other and become a common force in facing the various difficulties of life they face. During the interview, a farmer revealed the importance of communal work as a crucial component of community food security.

*"We initially practiced Mekambare when working on rice fields. But along with the changing times and social challenges, we also share food with friends who are in trouble, for example, when a crop fails or someone is holding a celebration or Thanksgiving event."* (interview, July 3, 2023).

On a daily basis, *Mekambare* culture inspires farming communities to form food solidarity initiatives. This food solidarity is achieved by freely giving food or other supplies to other farmers who are known to be experiencing difficulties. This action is a concrete manifestation of the culture of *gotong royong* (mutual cooperation). *Gotong royong* is a spirit that is manifested in individual actions and behaviors that are carried out without expecting anything in return for common goals

and interests (Koentjaraningrat, 2015; Suwignyo, 2019). The farming communities exhibit mutual concern and mutual cooperation in maintaining food availability and preventing hunger among themselves. Initially, *Mekambare* culture was utilized for managing agricultural land. However, as society evolves and changes, the *Mekambare* culture's values and principles of social solidarity are now also present in the social structure of farmers' lives.

For the farmers in East Kolaka, food solidarity has been the primary factor in maintaining their food security. Through the exchange of food and support among them, they ensure that everyone in the community has access to sufficient and quality food. This act of food solidarity has no conditions in its implementation; the farmers, with their awareness, understand the anxiety and difficulties of their colleagues. *Mekambare* culture develops empathetic personalities that make people more aware of their surroundings. This culture serves as social capital in society and is used to address social issues (Susanto, 2010; Suwignyo, 2019).

The solidarity of farmers plays an important role in food security. For example, farming families in the Ecuadorian Andes, with agroecological, social, and solidarity economic movements, faced agricultural challenges (Villalba-Eguiluz et al., 2023), and small farmers in Egypt struggled with access to land (Bush, 2023).

Food solidarity formed in the [Mekambare](#) culture plays an important role in the food security of the community when facing difficult situations or crises. For example, they support and assist one another in addressing food needs, such as the need for meals. As such, solidarity also contributes to reducing social inequality and creating shared prosperity. The farming communities have tapped into their local wisdom to maintain food security and agricultural sustainability in a sustainable and efficient way. In an anthropological perspective, food is tied to culture, including technology, social structure, and people's beliefs, in addition to being a necessity for humans to survive (Nurti, 2017). This food solidarity reflects the collective strength of the farming community in overcoming food difficulties and becomes a solid foundation for sustaining food security in East Kolaka Regency over the long term.

## CONCLUSIONS

**A**s a conclusion in this study that *Mekambare* as local wisdom in East Kolaka is able to build a sense of community and care which is a pillar of forming a strong social network for the progress of agricultural communities in the development of food security in East Kolaka. This research highlights the significance of *Mekambare* as a social solidarity practice



promoting food security in sustainable agricultural management in East Kolaka Regency. *Mekambare* plays a crucial role in fostering social cohesion among lowland rice farming communities. *Mekambare* also places a high priority on using organic techniques, cutting back on the use of synthetic chemicals, and safeguarding biological resources. The practice of it has provided positive benefits by producing nutritious food of high quality while preserving the environment's sustainability. Additionally, the social ties formed through *Mekambare* foster collective awareness and aid in ensuring the food security of the community. Through mutual cooperation ([gotong royong](#)) in sharing food commodities and social support among farmers, communities can reduce their vulnerability to the social impacts of climate change and overcome various difficulties that can occur in food production systems.

*Mekambare* as a local wisdom of the people in East Kolaka Regency needs to be tolerated and maintained because it has made an important contribution and is the key to agricultural sustainability. Actions and orientations in *Mekambare* practice are able to build a sense of community and care in forming a strong community network for the betterment of the agricultural community in East Kolaka. This research makes a significant contribution to the literature by advancing our knowledge of how culture, community, and environment interact to achieve the objectives of sustainable agricultural management. The findings in this study can be used as information in designing sustainable agricultural management strategies in favor of resources and ensuring food security for the community.

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