

Empowerment of Farmers' Resources as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

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Abstract

This study aims to examine how the empowerment of farmers' human resources (HR) is carried out as an effort to prevent and address food insecurity in Mamuju Tengah Regency. A qualitative approach was used. Qualitative research involves methods to explore and understand the meaning that individuals or groups assign to social issues. The data used include both primary and secondary sources. Data collection techniques involved observation, interviews, and documentation. Informants were selected using a purposive sampling technique. Data analysis followed the Miles, Huberman, and Saldana model, which consists of data collection, data display, data condensation, and conclusion drawing. Based on the research findings, it is concluded that the empowerment of farmers' human resources as an effort to prevent and address food insecurity in Mamuju Tengah Regency has been implemented but is not yet optimal. Improvements are needed, especially in farmer involvement in decision-making, provision of training based on farmers' actual needs, building cross-sectoral networks, and structured evaluation through training programs. The aspect of accountability in the empowerment process has not been fully applied. This stage should focus on assisting farmers in managing workloads, establishing clear standards and performance indicators for HR empowerment, and ensuring continuity in implementation.

Keywords: Farmer Resource Empowerment, Food Insecurity, Mamuju Tengah Regency

Abstrak

Penelitian ini bertujuan untuk mengetahui bagaimana Pemberdayaan Sumber Daya Petani Sebagai Upaya Pencegahan Dan Penanganan rawan Pangan dilaksanakan Dikabupaten Mamuju Tengah. Penelitian ini menggunakan pendekatan kualitatif. penelitian kualitatif terdiri dari metode-metode yang digunakan untuk mengeksplorasi dan memahami makna yang diberikan oleh individu atau kelompok terhadap masalah-masalah sosial. Jenis data menggunakan data primer dan data sekunder. Teknik pengumpulan data, dilakukan melalui observasi, wawancara, dan dokumentasi. Teknik penarikan informan menggunakan purposive. Analisis data yang digunakan yaitu model Miles, Huberman dan Saldana, yaitu pengumpulan data, penyajian data, kondensasi data dan penarikan kesimpulan Berdasarkan temuan penelitian, disimpulkan bahwa Pemberdayaan sumber daya manusia petani sebagai upaya pencegahan dan penanggulangan kerawanan pangan di Kabupaten Mamuju Tengah telah dilaksanakan, namun belum optimal. Perlu dilakukan perbaikan, terutama dalam hal pelibatan petani dalam pengambilan keputusan, penyediaan pelatihan yang sesuai dengan kebutuhan petani, membangun jejaring lintas sektor, dan evaluasi hasil pemberdayaan melalui jalur pelatihan yang terstruktur. Dalam Aspek akuntabilitas dalam proses pemberdayaan belum sepenuhnya diterapkan. Tahapan ini berfokus pada pendampingan petani dalam mengelola beban kerja, menetapkan standar dan indikator kinerja yang jelas dalam pemberdayaan SDM, dan memastikan kesinambungan dalam pelaksanaannya.

Kata Kunci: Pemberdayaan Sumber Daya Petani, kerawanan Pangan, Kabupaten Mamuju Tengah.

INTRODUCTION

The empowerment of human resources in the era of globalization has become increasingly important across various sectors, as it directly impacts the quality of services and products (Engkus, 2025). This also applies to the agricultural sector, where the presence of qualified and transformative human resources particularly farmers plays a critical role in determining agricultural productivity. This is especially relevant in regions that are actively pursuing efforts to prevent and address food insecurity. Therefore, this study aims to examine the significance of human resource quality in the agricultural sector in supporting food insecurity prevention and mitigation efforts, with a specific focus on Mamuju Regency.

Conducting a study in this region is crucial, as Mamuju Tengah Regency is a newly established area. Therefore, it is important to explore both the potential and vulnerabilities related to sustainable food availability. Furthermore, the region is expected to implement various strategies to ensure that farmers can contribute to building a sustainable, innovative, and globally competitive agricultural sector. This becomes even more relevant considering its geographic proximity to the future capital city (IKN), positioning Mamuju Tengah as a key supporting region for national food supply.

For this reason, the quality of human resources among farmers must be enhanced to meet current goals and needs. Human resource planning in agriculture should not only involve the formation of farmer groups but also encompass farmer empowerment, labor management, and skills development (Ilmi & Winata, 2025). Moreover, human resource empowerment must take into account external factors such as demographic changes, technological advancements, and market dynamics. By understanding these trends, an organization can design policies that are both responsive and adaptive to environmental changes. Consequently, human resource planning and empowerment serve not only as tools to manage the current workforce but also as strategic means to prepare the organization for future challenges and opportunities.

Therefore, in order to achieve strong and sustainable food security as outlined in the relevant policy regulations, the empowerment of farmers' human resources serves as an effective alternative and strategic approach. As noted by Moh Kurdi (2023) their research demonstrated that training programs significantly enhanced farmers' knowledge and skills. Their understanding of modern agricultural technologies improved, paving the way for the adoption of more efficient and innovative farming practices. These findings underscore the importance of education as a key factor in enhancing farmers' capacity to respond to both global and local changes in the agricultural sector (Satoto, 2023).

Food is a basic human need that must be fulfilled at all times. The right to access food is a fundamental human right, as stated in Article 27 of the 1945 Constitution of the Republic of Indonesia and in the Rome Declaration (1996). These considerations serve as the primary foundation for the enactment of Law No. 7 of 1996 concerning Food. Food holds significant meaning and plays a crucial role in the life of a nation; a shortage of food relative to demand can lead to economic instability. Social and political unrest may arise if food security is compromised. A critical food situation poses a serious threat to both economic stability and national resilience.

Law No. 18 of 2012 on Food not only addresses the issue of food security, but also clarifies and strengthens the achievement of food security by promoting food sovereignty, food self-sufficiency, and food safety. Food sovereignty is defined as the right of a nation and its people to independently determine food policies that ensure the right to food for the population, by developing a food system that aligns with the potential of local resources. Additionally, the law defines food safety as the conditions and measures necessary to protect food from potential biological, chemical, and other contaminants that could harm, endanger, or negatively affect human health, and that may be inconsistent with religious beliefs, convictions, or cultural values of the community—thus ensuring that food is safe for consumption.

Efforts to enhance regional food security are largely determined by the capacity of rural communities to produce food on a regular and sustainable basis, as rural areas serve as the foundation of agricultural development—relying heavily on natural resources, labor, and farmer institutions. Achieving food security in rural areas is closely tied to the quality of human resources among farmers in managing and utilizing the potential of their respective villages. The quality of human resources is also a key factor in the success of agricultural development. Human resources that are proficient in developing and applying technology and scientific knowledge in the management of agricultural resources are essential for ensuring sustainable food production, meeting food needs, and preventing food insecurity at both local and national levels.

Human resources (HR), particularly among small-scale or individual farmers in the agricultural sector, are a crucial factor in determining success and sustainability. Smallholder farmers typically operate as family-run enterprises that rely on labor from family members (Halim, 2022). However, the empowerment of human resources among farmers faces various challenges, including limited access to education, training, technology, and market information (Parmono & Zahriyah, 2021).

In fact, from a policy perspective, the Indonesian government has established clear regulations regarding the empowerment of farmers and the development of human resources in agriculture. This is outlined in Law No. 19 of 2013 concerning the Protection and Empowerment of Farmers. Chapter I, Article 1, Point 2, defines farmer empowerment as all efforts aimed at improving farmers' livelihoods through education and training, extension services and mentoring, development of marketing systems and facilities for agricultural products, land consolidation and security of agricultural land area, improved access to knowledge, technology, and information, as well as strengthening of farmer institutions.

Furthermore, Article 3 states that the objectives of farmer protection and empowerment are to: (1) realize farmer sovereignty and self-reliance in order to improve their welfare, quality of life, and livelihoods; (2) provide the necessary infrastructure and agricultural facilities to support farm development; (3) ensure business certainty for farming; (4) protect farmers from price fluctuations, high-cost economic practices, and crop failures; (5) enhance the capacity and competence of farmers and farmer institutions in managing productive, advanced, modern, and sustainable farming; and (6) promote and develop financial institutions that support the needs of agricultural businesses.

In addition, Article 40 stipulates that farmer empowerment is carried out to advance and develop the mindset and work ethic of farmers, improve farming practices, and strengthen farmer institutions so that they can be independent and highly competitive. The law further emphasizes the importance of education and training for farmers, as regulated in Article 42. Point 1 mandates that the central and regional governments, within their respective authorities, are obliged to provide education and training for farmers. Point 2 specifies that this includes: the development of training and apprenticeship programs; the provision of scholarships for farmers to pursue agricultural education; and the development of entrepreneurship training in the agribusiness sector.

Mamuju Tengah Regency is a region with significant potential for the development of leading commodities, including food crops, horticultural crops, plantation crops, and livestock. This is supported by data from the Tengah Mamuju Regency Agriculture Office, which reports that the regency's economy currently relies heavily on the agriculture, forestry, and fisheries sectors. These sectors continue to play a dominant role in the Gross Regional Domestic Product (GRDP) at current prices. In 2017, the contribution of these sectors increased compared to the previous year, rising from 70.28% in 2016 to 70.43% in 2017. This increase was driven by growth across all sub-sectors within agriculture, forestry, and fisheries.

In addition to these sectors, several others also experienced growth in 2017, including the manufacturing sector (from 7.77% to 8.02%), the financial and insurance services sector (from 0.84% to 0.88%), and the education services sector (from 3.38% to 3.57%). Meanwhile, other sectors experienced a decline. The mining and quarrying sector contributed 1.22%; electricity and gas supply 0.01%; water supply, waste management, and sanitation 0.06%; construction 1.45%; wholesale and retail trade, and motor vehicle repair 4.64%; transportation and warehousing 0.06%; accommodation and food service 0.19%; information and communication 1.02%; real estate 3.47%; business services 0.01%; public administration, defense, and social security 3.94%; health services and social activities 0.29%; and other services 0.19%. These figures indicate that there is still much to be done by the government and stakeholders in advancing regional development.

Mamuju Tengah Regency possesses significant potential in the agricultural sector, contributing approximately 71 percent to the region's Gross Regional Domestic Product (GRDP). Currently, the local government is supporting farmers through the development of Cavendish banana cultivation, which is planned to be planted on 70 hectares of land. The regency also has three major agricultural commodities: cocoa, corn, and bananas. Bananas from Mamuju Tengah are already being shipped to South Sulawesi and even to the island of Kalimantan (Amirullah, Antarnews.com, 2024).

Despite this potential, farmers in Mamuju Tengah face a variety of challenges. According to data from the Mamuju Tengah branch of Statistics Indonesia (BPS), presented during the Agricultural Economic Survey (SEP) coordination meeting in July 2024, the Production Statistics Division reported preliminary findings on several agricultural sector issues. These include difficulties in accessing subsidized fertilizer, the low number of farmers registered in farmer groups, the seasonal availability of corn seeds, limited use of irrigation systems, high prices of subsidized fertilizers, expensive seeds and pesticides, and frequent crop failures due to flooding. In addition, corn farmers expressed frustration over difficulties in obtaining seeds despite having the necessary funds (mamujuTengahkab.bps.go.id).

Based on the findings of the study, the author analyzed that the issue of vulnerability to food insecurity in Mamuju Tengah Regency particularly in food-insecure villages classified as priority levels 1 to 4 is mainly due to the decreasing size of rice paddy land and the decline of agricultural commodities. This decline is driven by the widespread land conversion to oil palm plantations, as many farmers have shifted due to the low market prices of agricultural commodities at the farmer level. Furthermore, the absence of irrigation systems has left most farmers dependent on the climate and reliant on rain-fed agriculture. Inadequate road infrastructure also contributes to high transportation costs for marketing surplus agricultural products from the villages. These factors have encouraged farmers to switch from cultivating rice to planting oil palm in the hope of increasing production and improving household welfare.

However, in reality, even though many farmers have converted their land to oil palm plantations, their welfare levels have not improved. Many farming households still live below the poverty line. The low production of staple food crops (such as rice and corn) in villages is a direct consequence of land conversion to oil palm. In addition, there is a growing concern among farmers that, despite heavy use of chemical fertilizers to boost yields, production levels have remained the same, with input costs often exceeding expected returns.

On the other hand, the government has made efforts to intervene by empowering farmers through training programs such as Field Schools (*Sekolah Lapang*/SL). According to reports from agricultural extension officers, farmers have shown high enthusiasm for participating and implementing the lessons learned. This is evidenced by changes in their farming practices, such as improved decision-making in

planting schedules, seed variety selection, and crop treatment methods—all of which are now conducted through participatory discussions within farmer groups in each region.

However, the lack of continuity in these programs has led farmers to revert to oil palm cultivation. Despite its low market value, oil palm remains preferable because it is consistently marketable and does not spoil over time, unlike food crops. This has become a major reason why many farmers are converting their rice fields into oil palm plantations. As a result, this shift has led to a decline in food crop production in Mamuju Tengah Regency and has contributed to increased vulnerability to food insecurity.

RESEARCH METHOD

This study employs a qualitative approach. According to J. Cresswell (2007) qualitative research consists of methods used to explore and understand the meanings that individuals or groups ascribe to social problems. The use of a qualitative approach allows researchers not only to assess the achievements of empowering farmer resources in preventing and handling food insecurity, but also to understand the processes, obstacles, and supporting factors that influence the process or achievement of empowering farmer resources in Mamuju Tengah Regency.

The qualitative research process involves several essential steps, including formulating research questions and procedures, collecting data from specific informants, and analyzing the data inductively—moving from particular themes to broader ones—and interpreting the meaning of the data. Creswell (2007:20) explains that qualitative methods can be conducted using various approaches such as participatory research, discourse analysis, ethnography, grounded theory, case study, phenomenology, and narrative inquiry. However, in this study, the researcher adopts a descriptive approach as part of the qualitative research methodology.

Referring to the view of Nasution (1988) qualitative research—or naturalistic research—is conducted in a “natural” field setting, where the situation is observed as it truly is, without manipulation or control through experimentation. Naturalistic research aims to present slices of life or real-life events, documented using natural language, and to represent as closely as possible how individuals express what they know, what they care about, their beliefs, perceptions, and understanding.

As Ezzy (2003:3) explains, “meanings are constantly changing, and are produced and reproduced in each social situation with slightly different nuances and significances depending on the nature of the context as a whole.” Ezzy’s explanation emphasizes that qualitative research methods are primarily concerned with the attribution of meaning and interpretation of the subject under study. Thus, qualitative research places its focus on the specific interpretation and understanding of the object of inquiry. This study adopts a deductive reasoning approach, beginning with concepts and theories related to policy implementation topics that have been widely examined and developed by various scholars. These relevant concepts and theories are then modified and reduced to establish the research focus and conceptual framework. The research paradigm employed is qualitative, as the data used are qualitative in nature, collected through qualitative methods and analyzed using qualitative techniques. Bog and Taylor describe this as a research procedure that produces descriptive data in the form of written or spoken words from individuals and observable behavior (Moloeng Lexy, 1994). Nevertheless, quantitative data are also included as supporting data to complement the research data analysis.

The qualitative data analysis model by Miles & Huberman emphasizes that the analysis process is interactive and continuous, starting from data collection to drawing conclusions. This process consists of three main components: data reduction, data display, and conclusion drawing/verification. Data reduction is carried out by selecting, focusing, and simplifying relevant data; data display involves organizing

information in a structured manner in the form of narratives, tables, or charts to make it easier to understand; while conclusion drawing aims to identify meanings and patterns from the data, which are then repeatedly verified. These three stages are interconnected and form a dynamic analysis cycle, allowing the research findings to be more valid and in-depth.

Before conducting field interviews, the researcher first determined the informants using a purposive sampling technique so that, during the interviews, the selected informants were expected to provide data relevant to the research problem. The informants to be interviewed for this study include: Head of the Agriculture Office of Mamuju Tengah Regency, Agricultural Extension Officer (Functional Position), Head of the Plantation Division, Head of the Agricultural Infrastructure and Facilities Division and also One representative from a farmer group. In this study, the researcher themselves serves as the primary instrument of data collection. As stated by Lincoln and Guba in (Satori, 2010), the use of humans as data collection instruments offers advantages, as they can be flexible and adaptive, and are able to utilize all of their senses to gain a deeper understanding of a phenomenon. In addition to the researcher acting as the main tool for gathering data, this study is also supported by an interview guide and an observation guide used during field observations.

RESULTS AND DISCUSSION

Food Insecurity and the Contributing Factors to Food Insecurity in Mamuju Tengah Regency

Food insecurity is a condition in which food is not adequately available—from the national level down to the individual level. This is reflected in the lack of sufficient food availability in terms of quantity and quality, safety, diversity, and nutritional value (less than 70% of required caloric intake), as well as equitable distribution and affordability, while also being in accordance with religious beliefs, cultural values, and societal norms—thus enabling individuals to live healthy, active, and productive lives in a sustainable manner. Food insecurity is generally categorized into two types: chronic food insecurity and transient food insecurity. Chronic food insecurity refers to the long-term or persistent inability to meet minimum food requirements. This condition is typically associated with structural factors that are not easily or quickly changed, such as local climate, soil type, governance systems, land ownership, inter-ethnic relations, education levels, and so on.

Meanwhile, transient (temporary) food insecurity is a short-term or temporary inability to meet minimum food needs. This condition is usually caused by rapidly changing dynamic factors such as infectious disease outbreaks, natural disasters, displacement, market disruptions, high levels of debt, migration, and others. If not addressed, persistent transient food insecurity can lead to a decline in household living standards, reduced soil productivity, and eventually develop into chronic food insecurity.

Vulnerability to food insecurity refers to the condition that causes a population at risk of food insecurity to actually become food insecure. The level of vulnerability of individuals, households, or community groups is determined by their degree of exposure to risk factors or shocks and their capacity to cope with these situations, whether under stress or in normal conditions.

The discussion that follows refers specifically to vulnerability to food and nutrition insecurity. The vulnerability level of individuals, households, or community groups is determined by their understanding of risk factors and their ability to respond to stressful situations. Food insecurity can manifest as either a chronic or transient condition, as illustrated in the figure 1 below:

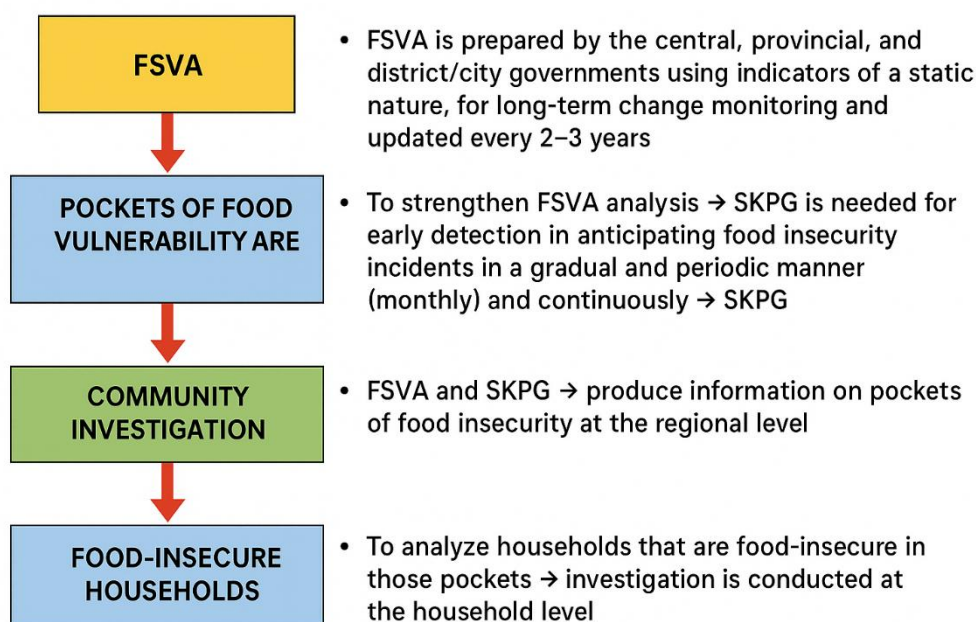


Figure 1. Food Security and Food Vulnerability Map

Food and nutrition are multidimensional issues that require analysis through a variety of parameters. The complexity of food and nutrition security problems can be simplified by grouping proxy indicators into three distinct but interrelated categories: food availability, household access to food (affordability), and individual food utilization. Nutritional considerations including the availability and affordability of nutritious foods are integrated across all three categories.

Food Availability Aspect

Based on Law No. 18 of 2012 concerning Food, food availability is defined as the condition in which food is sufficiently available, sourced from domestic production and national food reserves, as well as imports if the two primary sources are unable to meet the demand. Food availability is determined by food production in the region, food trade through market mechanisms within the region, stock held by traders and government reserves, as well as food aid from the government and other organizations. The majority of food items, whether produced locally or imported from outside the region, must first enter the market before reaching households. Therefore, in addition to food production capacity, the existence of food supply facilities and infrastructure, such as markets, is closely related to food availability in a given area. To describe the food availability situation in the development of the District Food Security and Vulnerability Atlas (FSVA), the indicators used are: (1) The ratio of irrigated rice field area to the total village area; and (2) The ratio of food supply facilities and infrastructure to the number of households.

The ratio of agricultural land area to the total village area is used as one of the indicators under the aspect of food availability, as agricultural land has a positive correlation with the level of food availability by influencing food production capacity. Therefore, the higher the ratio of agricultural land area to the total village area, the better the assumed food availability, and vice versa.

Food supply facilities and infrastructure are assumed to function as food storage locations (food stock), which are sourced either from local farmers as food producers or from outside the area. Therefore,

the higher the ratio of food supply facilities and infrastructure to the number of households in a village, the better the food availability in that village is assumed to be. This indicator is used as a complementary measure to the previous indicator, since it is possible that a village may not have the potential to produce its own food. However, if the village has sufficient food supply facilities and infrastructure, food availability in that area can still meet the consumption needs of the community.

Of the five sub-districts in Mamuju Tengah Regency, there are ten villages/urban wards identified as Priority 1 or highly vulnerable to food and nutrition insecurity. These are spread across four sub-districts: Karossa District (Kambunong, Tasokko, Salubiro, and Lara Villages); Topoyo District (Salulekbo Village); Budong-Budong District (Lemba Hada Village); and Tobadak District (Sejati Village). These areas are characterized by a very low ratio of health workers, making them particularly vulnerable to food and nutrition insecurity. Additionally, one village is categorized under Priority 2 (Tabolang and Sinabatta Villages) in Topoyo District, and eleven villages fall under Priority 3. These include villages in Tobadak District (Sulobaja, Bambadaru), Karossa District (Sukamaju and Mora IV), Topoyo District (Waepute and Tappilina), Budong-Budong District (Salumanurung, Kire, Pontanakayyang, and Bojo), and Pangale District (Pangale Village).

The Desire Aspect of Empowering Farmers' Resources as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

Usmara (2003) offers an empowerment model that can be developed within an organization to ensure the success of the empowerment process. Desire is the first stage in the empowerment model, referring to the willingness of management to delegate authority and involve employees. This stage includes, among other things: a) giving employees the opportunity to identify emerging problems; b) reducing directive personality tendencies and expanding employee involvement; c) encouraging the creation of new perspectives and rethinking work strategies; d) highlighting team expertise and training employees in self-control.

The desire aspect (motivation or willingness) of human resource empowerment among farmers, as an effort to prevent and address food insecurity in Mamuju Tengah Regency, West Sulawesi Province, refers to the initiative to foster farmers' motivation and willingness to actively participate in human resource development efforts. The willingness of farmers to be directly involved in the empowerment process is considered a more effective approach to enhancing agricultural skills, particularly in adopting new technologies and managing farming enterprises efficiently and sustainably.

Interview Result with Mr. Ir. H. Amirullah, MMpub, Head of the Food Security and Agriculture Office of Mamuju Regency:

"So far, the Mamuju Regency Government, through the Department of Agriculture, has designed and implemented various programs in the field of agriculture and food security as preventive measures against food insecurity. These programs include: strategic food production improvement programs, the development of agricultural zones based on local leading commodities, and the provision of agricultural facilities and infrastructure assistance such as quality seeds, fertilizers, agricultural machinery (alsintan), as well as farmer assistance activities through agricultural extension workers. In addition, we have also developed an annual food insecurity map. Therefore, in my personal opinion, the initiatives I mentioned reflect the *desire/motivation aspect* of the Mamuju Tengah Regency Government in encouraging farmers to be motivated to enhance their capacity in agricultural management and crop yield improvement. The main goal is to improve household economies so that they can avoid food insecurity. I believe this is the right step—if we are to address and prevent food insecurity, the first measure the government must take is to motivate farmers by enhancing their human resource capacity." (Monday, April 28, 2025)"

The discussion on the desire aspect continues, particularly regarding how farmers are involved in identifying problems and in fostering new perspectives—especially in enhancing work strategies and participating in policy or program formulation related to the empowerment of farmers' human resources. This is illustrated in the following interview excerpt with one of the research informants, Mr. Faturrahman, a representative of a local farmer group:

“In my opinion, so far, the local government and the Food Security and Agriculture Office have started to involve farmer groups in several stages of planning, particularly through forums such as *musrenbang* (development planning discussions), *rembug tani* (farmer deliberations), and other technical meetings. However, the involvement of individual farmers is still very limited. Usually, farmers' voices are conveyed through the head of the farmer group. As a representative of a farmer group, I hope that farmer participation can become more inclusive and representative, so that the aspirations of farmers from various backgrounds can be better heard. This would allow agricultural programs to align more closely with the actual needs of farmers and be more well-targeted. Honestly, all farmers—whether part of farmer groups or acting individually—have a strong desire to improve their livelihoods, especially by increasing production to support their families. However, the challenges we face are related to seasonal issues and the lack of irrigation systems, which makes us dependent on rain and therefore vulnerable to crop failure. On the other hand, many farmers are becoming increasingly interested in converting their land into oil palm plantations, which are perceived to have higher economic value compared to local food crops.” (Saturday, May 23, 2025)

With a strong desire aspect, farmers are more prepared and capable of implementing responsive measures in addressing food insecurity, such as crop diversification, sustainable resource management, and increasing local productivity. This directly supports food security at the community and regional levels in Mamuju Tengah Regency. Nevertheless, the author observes that the empowerment of farmers' human resources from the desire aspect particularly from the farmers' own perspective remains relatively weak, especially concerning staple food production. In contrast, the motivation is considerably higher for commodities with greater economic value, such as oil palm. The author notes that farmers tend to engage in commercial agriculture not as a reactive response to deteriorating farming conditions, but rather as a proactive response to emerging economic opportunities. In reality, market expansion often benefits poorer farmers; however, the development of regional and national markets should not solely emphasize the potential economic gains but must also consider the risks and vulnerabilities that such expansion may pose to individual farmers.

The Trust Aspect in the Empowerment of Farmers' Human Resources as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

The trust aspect plays a crucial role in the empowerment of farmers' human resources as an effort to prevent and address food insecurity in Mamuju Tengah Regency. Wibowo (2010) Trust can significantly enhance the effectiveness of empowerment programs aimed at preventing and managing food insecurity. When farmers have trust in the government, agricultural extension workers, and fellow members of farmer groups, it encourages and strengthens their active participation in empowerment initiatives, training activities, and resource management efforts. This, in turn, contributes to improved and sustained food security. Moreover, trust fosters cross-sectoral collaboration. As is widely recognized, the prevention and management of food insecurity in Mamuju Tengah can only be achieved through the involvement of multiple stakeholders. Trust facilitates stronger cooperation between farmers, the government, and various partners, particularly in matters related to access to food and nutrition-related information and

support. When trust is established, farmers are more likely to gain timely and accurate access to information and resources, which is essential for effective and responsive food insecurity mitigation strategies (Tri Bastuti, 2014).

Trust plays a vital role in enhancing farmers' motivation to actively engage and participate in empowerment programs. Farmers who have trust in their own capabilities, as well as in the institutions and individuals implementing these programs—such as agricultural extension workers and farmer groups—tend to be more motivated to learn and take part in agriculture-related activities. Trust serves as a form of social capital that strengthens communication and collaboration. Cooperation among farmers and between farmers and extension agents facilitates the exchange of agricultural information through discussion forums and advisory interactions, while also opening up opportunities for cross-sectoral collaboration. This dynamic, in turn, fosters greater motivation among farmers to improve their knowledge and skills in the agricultural sector.

Therefore, government programs in Mamuju Tengah Regency—such as providing training in business management, administration, and product processing to increase the added value of agricultural products—have had a positive impact on farmers' economic conditions. The success of these empowerment efforts is evidenced by increased crop yields and farmers' incomes following participation in the programs, which in turn has strengthened public trust in the effectiveness of such initiatives. Furthermore, farmer empowerment is also directed toward fostering a mindset of independence and responsibility in managing agricultural institutions, as well as expanding market access—offering a comprehensive solution to the challenges faced by farmers in Mamuju Tengah Regency. As a result, public trust grows as the empowerment programs for human resources in the agricultural sector have demonstrably improved farmers' capacity, productivity, and self-reliance in overcoming various agricultural challenges. As stated by one of the key informants—the Head of the Food Security and Agriculture Office—Mamuju Tengah Regency Government has provided opportunities and actively involved farmers both in the planning and implementation stages of farmer empowerment programs. The following is an excerpt from the interview with the informant:

"In my opinion, the local government has gradually begun to involve farmer groups in several stages of the planning process, particularly through forums such as Musrenbang (development planning meetings), farmer consultations (rembug tani), and other technical meetings. However, the involvement of individual farmers remains limited. Typically, farmers' voices are conveyed through the heads of farmer groups. Ideally, moving forward, the involvement should be more inclusive and representative so that the aspirations of farmers from various backgrounds can be directly heard—especially regarding the key issues in agriculture, particularly those faced by individual farmers who are not yet part of any group. I believe that both farmer groups and individual farmers play a crucial role in the formulation of policies and programs related to human resource empowerment for farmers. This can be achieved through various participatory mechanisms, such as involving the community in the village or sub-district development planning processes that relate to HR empowerment, especially by engaging communities in the monitoring and evaluation of government programs to ensure their success and sustainability. Furthermore, methods such as needs assessment surveys, focus group discussions (FGDs), and participatory observation are also conducted." (Monday, 28 April 2025)

Based on the above statement, the author concludes that the aspect of trust has been realized. According to Khan (2014) trust is the second step in implementing the empowerment of human resources for farmers. This implies that when the government of Mamuju Tengah Regency provides opportunities for farmers to be involved and participate in policymaking, a sense of mutual trust between the

organization and the farmers has been established, thereby creating a favorable environment for the exchange of information and ideas.

The Confidence Aspect in the Empowerment of Farmer Resources as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency.

The relationship between confidence and the success of empowerment, according to Khan (2007), lies in the notion that farmers' self-confidence fosters greater independence, initiative, and a sense of responsibility. This, in turn, enhances both individual and organizational performance. In other words, successful empowerment leads to the development of farmers' self-efficacy, which positively influences their performance and commitment to improving productivity and household food security. Therefore, confidence serves as the foundation that enables farmers to optimize their potential, thereby ensuring that empowerment efforts achieve the desired outcomes within the organization.

To foster farmers' self-confidence, the Government of Mamuju Tengah Regency has created opportunities for active and voluntary participation by farmers throughout all stages of empowerment programs—from planning, implementation, and evaluation to the utilization of program outcomes—ensuring that farmers' aspirations and needs are directly accommodated. For instance, the government conducts village deliberations and meetings with farmer groups as discussion forums to gather input and determine the specific needs of farmers, including in the allocation of subsidized seeds, fertilizers, and other related programs. Furthermore, the government has established farmer groups and farmer group associations (Gapoktan) as representative bodies to facilitate communication, manage aid distribution, and implement empowerment programs more effectively. Field agricultural extension workers are involved as facilitators to assist farmers, support communication between farmers and the government, and provide technical guidance. Regular meetings and socialization sessions are held to discuss planned activities, receive feedback, and encourage active discussions, enabling farmers to contribute meaningfully to sustainable decision-making processes. Through this participatory approach, farmers develop a sense of ownership and responsibility toward the empowerment programs, thereby enhancing the effectiveness of efforts to improve welfare and food security in alignment with local needs.

To provide more clarity, the following is an excerpt from an interview with one of the research informants. This interview was conducted with Mr. Latif, Head of the Agricultural Infrastructure and Facilities Division of Central Mamuju Regency. The excerpt is as follows:

"The government provides opportunities for the community/farmers to participate through deliberation forums and discussions, holding regular meetings at the village or sub-district level that involve farmers, community leaders, and government representatives to discuss food insecurity issues and seek solutions. It ensures that food insecurity becomes a priority agenda in the Development Planning Meeting (Musrenbang), and that farmers are actively involved in providing input for empowerment program planning. Surveys and questionnaires involve farmers in collecting data on food availability, accessibility, and utilization at the household and community level." (Wednesday, May 14, 2025)

The above statement indicates that the aspect of confidence/self-assurance has been implemented. This can be seen from the two statements made by the informants, which reveal that the government has delegated authority to farmer groups to be actively involved in efforts to prevent and address food insecurity in Central Mamuju Regency

The Credibility Aspect in the Empowerment of Farmers' Human Resources as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

The credibility aspect in the empowerment of farmers' human resources is crucial in efforts to prevent and address food insecurity. Credibility encompasses the trustworthiness, authority, honesty, and expertise of agricultural leaders or extension workers, all of which significantly influence farmers' attitudes and motivation in managing agricultural enterprises effectively. High credibility in leadership or among extension officers can improve the management of agricultural production, thereby positively impacting productivity and sustainability, ultimately contributing to the prevention of food insecurity. Moreover, improving the quality of human resources through competency-based training, education, and mentoring is essential to support the development of sustainable agriculture and food security. Therefore, credibility in farmer empowerment serves as the foundation for trust and effective communication between farmers and extension agents or leaders, which is vital to the success of agricultural production management and the prevention of food insecurity.

In the empowerment of farmers' human resources as a strategy to prevent and address food insecurity in Tengah Mamuju Regency, the credibility of agricultural extension workers significantly influences farmers' trust in such efforts. This is because extension agents who demonstrate strong competence, character, purpose, personality, and dynamism are better able to foster positive attitudes among farmers toward new technologies and agricultural practices. Research shows that the credibility of extension workers has a substantial impact up to 50% on farmers' willingness to adopt integrated crop management technologies that can enhance productivity and food security. Farmers' trust in extension workers increases their motivation and confidence to follow guidance and adopt innovations, thereby making farm management more effective and sustainable. Credible extension workers also serve as key communication bridges between the government and farmers, facilitating access to information, technologies, and essential resources for preventing food insecurity. Furthermore, trusted extension workers are capable of providing effective individual and group mentoring, fostering optimism in the face of food production challenges. Thus, the credibility of extension personnel is a critical factor in building farmer trust, which is essential for the successful prevention of food insecurity through enhanced local productivity and food resilience.

Mr. Purnoyase, Head of the Agriculture Division. The following is an excerpt from the interview with him:

"In my opinion, farmer human resource empowerment has indeed been implemented, but not optimally, because together with the extension officers, we have tried to encourage and motivate farmer groups to be involved in preventing food insecurity. We believe that most of the extension officers' credibility greatly influences changes in farmers' attitudes, especially when extension officers provide guidance and introduce new innovations, which have led to changes in how farmers manage their farming, although these changes are not yet significant. As we all know, extension officers are the communication bridge between the government and farmers. They facilitate access to information and technology. However, when extension officers have conveyed information related to assistance—such as technology, fertilizers, and so on—but the realization does not occur due to budget constraints or higher-level policy decisions, it affects farmers' trust. Therefore, in my personal opinion, farmer human resource empowerment in terms of credibility has been carried out but not to its maximum potential." (Wednesday, May 20).

The empowerment of farmers' human resources as an effort to prevent and address food insecurity in Mamuju Tengah Regency has not been fully achieved in terms of credibility. According to Khan (2007) in Widodo (2018), maintaining credibility requires appreciation and a supportive work environment that

encourages healthy competition and helps build strong organizational performance. Credibility also means seeing farmers as important partners, especially in improving work targets, encouraging individual initiatives, and helping align different goals and priorities through participation. However, in reality, there are no clear standards to measure performance. Although many agricultural extension workers are personally considered credible, the system at the local government level is still weak due to limited funding and inconsistent programs related to food security. In addition, farmers' trust has declined because some promises made by the government were not fulfilled. Credibility plays an important role in building farmers' trust, which is essential for the success of food security programs and in improving farmers' capacity.

The Accountability Aspect in the Empowerment of Farmers' Human Resources (HR) as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

The accountability aspect refers to the obligation of empowerment program managers to be transparently responsible for both the processes and outcomes involved in enhancing farmers' capacity. Accountability also includes the responsibility of resource managers, program implementers, and stakeholders for the results achieved in empowering farmers, with the goal of making them independent and productive so they can effectively prevent and address food insecurity. Accountable empowerment of farmers' human resources includes: 1) Improving farmers' knowledge and skills through systematic training and mentoring, enabling them to address challenges in production and marketing. 2) Active involvement of facilitators, motivators, and educators from relevant parties (e.g., CSR initiatives, Farmer Training Centers/P4S, and government institutions) to strengthen farmers' responsiveness and participation in empowerment programs. 3) Transparency and reporting of empowerment outcomes to stakeholders as a form of responsibility, which supports program evaluation and 4) continuous improvement. Policies and institutional support that foster a conducive farming environment, market access, and fair partnerships enabling smallholder farmers to play an optimal role in achieving food security. With strong accountability in empowering farmers' human resources, it is expected that farmers will become more self-reliant, productive, and competitive, thereby directly contributing to the prevention and resolution of food insecurity at both local and national levels.

Ms. Rina Apriana, S.TP, who serves as an Agricultural Extension Officer in Central Mamuju Regency, expressed her views as follows:

"In my personal opinion as a field worker, institutional accountability is certainly ensured. When evaluation is conducted through training channels, it only goes as far as assessing whether farmers understand what was delivered during the training or not. Participants are involved in determining performance assessment standards during training to ensure transparency and relevance. The transparency and relevance referred to here are the indicators of the accountability process. Another form of accountability is the clarity of targets outlined in each training module, which is complemented by measurable objectives (for example: a 10% increase in technical skills) as the basis for evaluation. However, this has not yet extended to providing time for feedback after the activity is completed—in other words, there is no follow-up action after the empowerment activities end." (Friday, May 9, 2025).

Next, a statement from an informant representing a farmer group, Mr. Faturrahman, is as follows:

"Yes, during the training we were given learning modules, and we also took tests on the materials that had been taught. We were also promised assistance such as farmers' access to capital, land, water, superior seeds, fertilizers, and agricultural technology needed to increase productivity and income—but in reality, this was not realized. We also hope that the government will provide further

training until we, as farmers, can truly be independent so that we can reduce food insecurity in the village." (Saturday, May 23, 2025).

Based on the research findings, the author concludes that the accountability aspect of human resource (HR) empowerment for farmers, as an effort to prevent and address food insecurity in Mamuju Tengah Regency, has not been optimally implemented or has not been carried out effectively. According to Khan (2007) as cited in Widodo (2018), accountability in farmer HR empowerment can be effectively realized if it includes the following elements: 1) Utilizing training as a channel for performance evaluation, 2) Assigning clear tasks and measurable performance indicators to participants, 3) Involving participants in setting standards and benchmarks, providing support in workload management, and 4) Allocating time for periodic feedback. However, based on interviews with key informants, it was revealed that accountability is limited to internal reporting within the implementing institutions and does not directly engage farmers. Moreover, the unfulfilled aid due to budget refocusing has created a perception of poor accountability among farmers. In addition, accountability efforts have only extended to the completion stage of activities, without any continuity in providing feedback to the farmers.

The Communication Aspect of Farmer Human Resource Empowerment as an Effort to Prevent and Address Food Insecurity in Mamuju Tengah Regency

Communication in empowering farmers' human resources as an effort to prevent and address food insecurity involves the active participation of all stakeholders. This type of communication usually takes place through open dialogues, including farmers as the main actors, agricultural extension workers, village governments, the private sector, and research institutions to build synergy in empowerment and food insecurity management. The outcomes of these dialogues are then used as a feedback mechanism and prompt follow-up actions by the government or extension workers in response to farmers' complaints and needs, so that solutions can be implemented quickly to prevent further food-related problems.

Furthermore, Khan (2007) in Widodo (2018) states that communication includes providing time to obtain information and openly discuss problems. Therefore, to ensure that farmers can access information and openly discuss their challenges, the government needs to provide communication training and capacity building programs. This will help farmers effectively express their aspirations and needs, as well as utilize the information they receive to improve production and strengthen food security. In addition, policies that promote transparency and access to information such as support for access to capital, technology, and markets are essential to optimize the empowerment of farmers' human resources in reducing food insecurity. With inclusive and responsive "open door" communication policies, the empowerment of farmers can be more effective in preventing and addressing food insecurity through smooth communication, collaboration, and timely access to relevant information.

To further elaborate on the communication aspect of farmer human resource empowerment, insights were provided by Ms. Rina Apriana, S.TP, an Agricultural Extension Officer in Central Mamuju Regency. The interview excerpt is as follows:

"In my view, technical communication in the field between extension officers and farmers is relatively good. The communication carried out between extension officers and farmers is direct or face-to-face during mentoring activities and group discussions within farmer forums. There is also communication using information and communication technology based on network platforms, such as exchanging information through WhatsApp groups between farmers and extension officers. By utilizing information and communication technology, farmers do not need to worry, as they can communicate anything related to agricultural issues through the WhatsApp group. This facilitates the exchange of ideas and feedback between extension officers and farmers." (Friday, May 9, 2029).

Based on the overall results of interviews with informants, it was found that information gathering and communication have been carried out well. Communication between the local government and farmers has been implemented technically, both directly and through intermediaries such as agricultural extension workers (PPL), farmer groups (Poktan), farmer group associations (Gapoktan), as well as through local agricultural applications and social media. However, communication related to policies and programs is not yet aligned between the central and local governments, and there is a lack of communication regarding program continuity. Therefore, the author concludes from the analysis that the communication aspect of empowering farmers' human resources as an effort to prevent and address food insecurity has not been implemented optimally.

The aspects of desire, trust, confidence, credibility, accountability, and communication interact dynamically in the empowerment of farmers' human resources as an effort to prevent and address food insecurity in Mamuju Tengah Regency. Although participatory, open, and democratic communication patterns are evident, and farmers actively participate in the empowerment process and decision-making, the use of social media and information technology as communication tools has further expanded access to information and accelerated farmers' motivation and competitiveness in facing food insecurity challenges. Overall, the author observes that well-directed and inclusive communication, supported by information technology, serves as a crucial foundation in empowering farmers' human resources to effectively prevent and manage food insecurity in Mamuju Tengah Regency.

CONCLUSION

Based on the research findings, and in response to the issue that the empowerment of farmers' human resources (HR) as an effort to prevent and address food insecurity in Mamuju Tengah Regency has not been carried out effectively (not yet optimal), it can be analyzed using Khan's theory (2007) as cited in Widodo (2018), which includes six aspects: desire, trust, confidence, credibility, accountability, and communication. Among these six aspects, four desire, trust, confidence, and accountability have been implemented but not optimally; credibility has not yet been implemented, while communication has been implemented. From the perspective of the two broader dimensions content and context of empowerment the following conclusions can be drawn

The empowerment of farmers' human resources as an effort to prevent and address food insecurity in Mamuju Tengah Regency has been implemented, but not optimally. Improvements are needed, particularly in terms of farmers' involvement in decision-making, provision of training that meets farmers' actual needs, building cross-sectoral networks, and evaluating empowerment outcomes through structured training pathways. The aspect of accountability in the empowerment process has not yet been fully implemented. This stage focuses on assisting farmers in managing workloads, establishing clear standards and performance indicators in HR empowerment, and ensuring continuity in implementation. Based on empirical findings, this study offers a novelty: the success of empowering farmers' human resources to prevent and address food insecurity in Mamuju Tengah Regency cannot solely be assessed from the content and context dimensions. It must also be supported by a collaboration aspect in its implementation.

From the content of farmer human resource (HR) empowerment The accountability aspect, viewed as a system, consists of a set of elements that are regularly interconnected to form a totality in developing strategies for thinking, learning, and working to achieve local food security and improve farmers' welfare. Farmer HR empowerment should enable farmers to manage their agricultural activities and apply the knowledge they have gained through training. To ensure that farmer HR empowerment is well

implemented, the government should establish follow-up programs that go beyond routine farmer group meetings with extension officers or relevant agency staff. Such empowerment efforts must be supported by assistance, including the provision of agricultural infrastructure and facilities, improvement of road access, and building partnerships with various stakeholders, so that empowerment can achieve the desired success.

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