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Realizing regional food security by empowering the communities through the food independent village program

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Abstract: This research can help improve public health and ensure the sustainable transformation of the food system. This study aims to analyze the success of Regional Food Security development activities through Community Empowerment with the food independent village program carried out by regional command units in the ranks of Korem 063/SGJ (Sunan Gunung Jati). This study uses qualitative descriptive with comparative methods. Population includes villages that have received the food independent village program in West Java (Kuningan, Cirebon, Majalengka, and Cirebon City) between 2009 and 2022. The research sample consisted of 4 villages selected from each of the districts/cities. The research informants totalled 37 people, consisting of stakeholders from the Korem 063/Sunan Gunung Jati Unit and its staff, the Food Security Service, village heads, affinity groups or farmers, and community leaders in the research area. The results of the study indicate that the success and failure in the implementation of the food independent village program by affinity groups and the food security development activity program by Satkowil have an effect on food availability, food distribution and food consumption. This research is expected to provide a comprehensive overview of the implementation of the food independent village program and food security development activities by regional command units in West Java.

Keywords: empower community; food independent village; food security; food system; regional

1. Introduction

Food is the main basic need for the community and has an important role in the life of a nation. Food security is a crucial issue in fulfilling people's welfare because it has an impact on the economic, social, and political stability of a country. Food is very closely related to the life of the nation and is a vital factor in maintaining the welfare and stability of a country (Kilelo et al., 2023). Food security is reflected in the availability of sufficient food, both in terms of quantity and quality, as well as safe and affordable food for households (Jenderedjian and Bellows, 2019). The significance of food extends beyond mere consumption. Food is not just a means of sustenance but a symbol of heritage and tradition, shaping personal narratives and fostering a sense of community and belonging (Surahman et al., 2018). Sustainable food systems are increasingly recognized as essential for addressing climate change and health challenges. The importance of developing sustainable food systems to tackle these pressing issues. The recent pandemic has underscored the importance of maintaining a healthy and balanced diet, further emphasizing the role of food in promoting overall well-being and resilience against health crises.

To help local governments meet the food needs of the community, one of the programs implemented is the food independent village program and food security development. In Indonesia, food security can be considered in terms of rural and urban areas. The findings of the food balance sheet also indicate that the region has made some impressive development gains in improving regional food self-sufficiency, indicating the importance of government interventions in improving food security both at the household and regional level (Rivera-Ferre et al., 2021). Rural areas are crucial for agriculture in Indonesia, particularly in local rice production. Food security in Indonesia can be realized when the population's food needs are met. Food Estate is one of the government's efforts to maintain Indonesia's food security in synergy with the local government's goal of creating regional economic activities through the involvement of investors and the community (Yeny et al., 2022). The local government has imposed five policies to address food insecurity, i.e., setting up a monthly program called the Food and Nutrition Security System, direct assistance in the form of food staples, developing the Food Security and Vulnerability Atlas, improving food access, and developing self-sufficient villages (Guixia et al., 2024; Sumarwati, 2022). In dealing with that challenge, the local government of Depok City has developed a local urban food system program called Pekarangan Pangan Lestari (P2L) in Bojongsari Sub-district. The capability of the regional government has an essential role in developing sago to support food security for the community (Rusli et al., 2022). Indonesia should focus on policies to increase the production and productivity of strategic food commodities through optimal utilization of national resources and achieving national food stock sufficiency (Letsoin et al., 2020).

Regional Resistance Development (Binwanwil) is all efforts and activities related to planning, drafting, developing, deploying, and controlling in order to realize dynamic resilience in a region by increasing sensitivity, awareness, and community participation in warding off every threat, disturbance, obstacle and challenge that endangers the sovereignty and integrity of the region. The government's efforts to realize Independent Villages are a strategy to build a peripheral economy that allows villagers and poor community groups in the village to get what they want and need for themselves and their families (Azheri and Anggunsuri, 2018). This strategy is an effort to help those who depend on their lives in the village to obtain many benefits from the results of development. Historically, nation building has implemented a centralistic and top-down system which is seen by many as a system that has created failure and dependence for society (Badaruddin et al., 2020). Its implementation has exploited resources and discredited the community, especially the village community. Various problems arise such as injustice, development gaps that do not provide space for exploration of local resources (Razak and Sofyan, 2020).

The food independent village program is an Indonesian government initiative that aims to improve food security at the village level. The program is designed to empower village communities to sustainably meet their own food needs, thereby reducing dependence on food supplies from outside the village. The food independent village program and food security development are the government's efforts to help meet the food needs of the community. The Food Independent Village Program is the government's strategy to increase food security in rural areas (Hardcastle and Caraher, 2021). The purpose of this program is to improve the ability of the community to

realize food security and nutrition, so that they can live healthy and productive lives in a sustainable manner. The target of this program is villages that have poor households and are at risk of food and nutrition insecurity, based on selection based on Food Security and Vulnerability Access (FSVA) and food insecure villages. This program is carried out through an integrated development approach from the centre, provinces, and districts in rural areas. This program activity involves involvement and synergy between agencies and related stakeholders. The program has been conducted in several provinces, such as West Sumatra, Java, and Papua, focusing on the most vulnerable areas based on the FSVA map (Elsye et al., 2023). The results of this program have helped improve the community's ability to realize food and nutrition security, as well as increase community income. The impact of this program includes increasing the food independence of households and communities, as well as improving community welfare (Junaidi et al., 2022; Winara et al., 2022). The coaching and development of this program is carried out in stages at the provincial and district levels to provide guidance to the implementing villages (Badaruddin et al., 2020). This program has helped improve the welfare of the community. The evaluation of this program has been carried out several times to increase the effectiveness of its implementation.

The Nusantara Territorial Doctrine states that coaching is defined as an action related to planning, compiling, developing, deploying, and controlling everything effectively and successfully to achieve the goals that have been set previously. Territorial Development is an effort, work and action, either independently or together with related apparatus and other components of the nation to assist the government in preparing the defence force of the land aspect which includes the defense area. Supporting forces as well as the realization of the unity of the Tentara Nasional Indonesia (Indonesian National Army)—the People which is carried out in accordance with the authority and laws and regulations in order to achieve territorial defense. The Tentara Nasional Indonesia Angkatan Darat (TNI AD) views food as having strategic value and is very decisive for the survival of the nation and state, so as to help the tasks of government in the regions through the function of territorial development. The Indonesian Army views food as having strategic value and is very decisive for the survival of the nation and state. Therefore, the TNI AD assists government tasks in the regions through the territorial development function. In an effort to increase food security, the Indonesian Army collaborates with agricultural offices in various regions in Indonesia to cultivate vacant land owned by the TNI to plant food crops such as rice and corn crops. The results are given to the affected communities, such as around 9000 hectares more. The Indonesian Army also emphasized the importance of cooperation with the Ministry of Agriculture (Kementan/Kementerian Pertanian) to accelerate production increase and restore food self-sufficiency that had been achieved 3 years earlier. Thus, Indonesia's food self-sufficiency is optimistic that it will be achieved soon. In addition, the Indonesian Army has a strategy to maintain food security by utilizing dormant or unproductive land to become productive land and produce better food. In order to increase food security, the Indonesian Army also participates in the Food Independent Village program, which is one of the strategies to accelerate development in rural areas. This program is implemented in selected villages that have poor households and are at risk of food and nutrition insecurity. This activity is carried

out in stages at the provincial and district levels to provide guidance to the implementing villages, by involving involvement and synergy between relevant agencies and stakeholders.

Unaddressed food insecurity can create economic instability, as well as social and political turmoil. Economically, food insecurity can lead to decreased productivity due to illnesses and higher healthcare costs, resulting in lost economic activity and substantial healthcare expenses (Fitzpatrick et al., 2020). Additionally, food waste contributes to higher food prices for consumers due to increased transportation and disposal costs, representing a missed opportunity to provide nutrition to those in need (Siswanto et al., 2022; van Vliet et al., 2022). Socially, food insecurity disproportionately affects marginalized communities, with more than twice as many Black and Latinx people experiencing food insecurity compared to White people (Hardcastle and Caraher, 2021). Politically, food insecurity can lead to civil unrest and violent conflict, depriving millions of reliable accesses to food and challenging their physical security and social cohesion. Furthermore, poverty and inequality are structural causes of food insecurity, exacerbated by the unaffordability of healthy diets, which can lead to negative coping mechanisms due to food scarcity. To address these challenges, social safety net programs like the Supplemental Nutrition Assistance Program (SNAP) can stimulate economic activity by increasing spending at farmers markets, grocery stores, and other locations where the benefits are accepted. Charitable contributions to anti-hunger organizations represent an opportunity cost, diverting resources from other social issues, but also providing essential support to those in need.

In fact, there are still areas in West Java Province that experience food insecurity and food shortages in several villages, indicating a gap in the distribution and availability of food between regions. There are still areas in West Java Province that experience food insecurity and food shortages in several villages, indicating that there is a gap in the distribution and availability of food between regions. Some villages experience food shortages, which means they do not have enough access to a balanced and nutritious diet (Syafiq et al., 2022). Limited land suitable for agriculture can limit people's ability to increase food production (Morales et al., 2024). In addition, the gap in food distribution between regions is a significant problem, with some regions having better access to food, while others are experiencing limitations.

Food shortages can have an impact on public health, especially children and the elderly who are susceptible to disease. Better development can help increase people's incomes and reduce poverty. Children and the elderly, the most vulnerable groups, are the main victims of hunger and malnutrition (Kazeem and Musalia, 2023). The impact is not only physical, but also mental and cognitive, hindering their development and future. On the other hand, development, which should be a solution, is actually hampered by poverty triggered by food limitations (Juarez et al., 2021). People who are trapped in a cycle of hunger find it difficult to get out of the trap of poverty. Low incomes and limited access to education and health services further exacerbate the situation. This inequality is like a gaping chasm that separates hope and reality. On the one hand, we yearn for a healthy and prosperous society. On the other hand, food shortages and poverty continue to give birth to a shackled generation.

Food security is a crucial issue faced by the Indonesian nation. One of the factors that hinders the achievement of food security is the lack of comprehensive guidance from various parties, including the empowerment of units in the ranks of the Indonesian Army. However, the empowerment of TNI AD units in fostering food security is still not optimal. This is due to several factors, such as lack of training and mentoring, budget limitations, and suboptimal coordination with related agencies. Coordination that has not been optimal with related agencies, such as the Ministry of Agriculture, local governments, and farmer organizations, is the last rock. Without good coordination, food security development programs cannot run effectively and efficiently.

This research is very important to improve regional food security and ensure safe and nutritious food for the community. This research can help improve public health and ensure the sustainable transformation of the food system. The solution offered is to empower the community by optimizing the food independence village program involving Army units so that it can increase food availability, distribution, and access to food and increase community food independence. This study aims to analyse the success of Regional Food Security development activities through Community Empowerment with the food independent village program carried out by regional command units in the ranks of Korem 063/SGJ (Sunan Gunung Jati).

2. Research method

This study uses qualitative descriptive with comparative methods to compare the implementation of the food independent village program in four different locations and food security development activities by regional command units. The study population includes villages that have received the food independent village program in West Java (Kuningan, Cirebon, Majalengka, and Cirebon City) between 2009 and 2022. The research sample consisted of 4 villages selected from each of the districts/cities. The research informants totalled 37 people, consisting of stakeholders from the Korem 063/SGJ (Sunan Gunung Jati) Unit and its staff, the Food Security Service, village heads, affinity groups or farmers, and community leaders in the research area.

This study uses a qualitative approach with a case study design. Data collection was carried out through several techniques, namely participatory observation, in-depth interviews, and documentation studies. Participatory observation is carried out to directly observe activities and interactions relevant to the research object. In-depth interviews are conducted with key informants who have in-depth knowledge of the research topic. Documentation studies are conducted to collect additional data from relevant documents, such as reports, policies, and articles.

The data analysis in this study uses the Miles and Huberman interactive model. The stages of data analysis include data reduction, namely selecting, coding, and simplifying the data that has been collected. Furthermore, the data that has been reduced is presented in the form of matrices, diagrams, or narratives to facilitate understanding. The last stage is drawing conclusions or verifying the results of the analysis. To ensure the validity of the findings, triangulation of data sources is carried

out, namely comparing data obtained from various sources, such as observations, interviews, and documentation.

3. Results and discussion

The Kodim ranks of Korem 063/SGJ as a regional command unit (Satkowil) in carrying out food security development activities guided by the phases that have been determined by the superior unit. Food security development activities are carried out for all Kodim soldiers in the ranks by involving elements of the community and farmers with the aim of motivating farmers and territorial officials in the context of developing agricultural technology, realizing the limited capabilities of territorial officials in agricultural science and the implementation of the budget for food security development activities and increasing the unity of the TNI with the people to support the main tasks of the TNI AD.

Korem 063/Sunan Gunung Jati as a regional command (Satkowil) carries out an important mandate in fostering food security in its region. Guided by the stages set by the higher units, Korem 063/SGJ held comprehensive food security development activities, involving all soldiers and farming communities. This activity was carried out to motivate farmers and territorial officials to jointly develop agricultural technology. It is hoped that through this activity, territorial officials can gain basic skills in the agricultural sector. In addition, this program also aims to ensure the implementation of the budget for food security development activities effectively and efficiently. More than that, Korem 063/SGJ wants to strengthen the unity of the TNI with the people through this program. This collaboration is expected to help the main task of the Indonesian Army, especially in maintaining national food security.

One of the flagship programs of Kodim area of the Korem 063/SGJ ranks is the implementation of a pilot project of 1 Ha land using BIOS 44 organic fertilizer. BIOS 44 is a decomposer product for food crops, plantations, livestock and fisheries. BIOS 44 has proven to be effective in improving soil fertility and crop yields, and can be used for various commodities such as rice, onions, corn, and fish farming. This program is carried out in stages, starting from land preparation, nurseries, planting, plant care, harvesting, to post-harvest. Korem 063/SGJ (Sunan Gunung Jati) also actively involves the community in this program, starting from training, mentoring, to marketing crops. Korem 063/SGJ efforts in building food security have shown positive results. This can be seen from the increase in crop yields, the increase in farmers' welfare, and the strengthening of the TNI's unity with the people. Korem 063/SGJ is committed to continuing to improve food security development programs in the future, with higher targets and more effective strategies.

The implementation of food security development activities in the Kodim area of the Korem 063/SGJ ranks uses the budget that has been set by the command for Fiscal Year 2022 of IDR (Indonesian Rupiah) Rp 10,500,000. The implementation of practice in the field of food security development activities with a pilot project model of 1 Ha land using BIOS 44, in addition to agriculture can also be used in fish nurseries, rice, onion and corn farms. Food security development activities in the Kodim area of Korem 063/Sunan Gunung Jati start from land preparation, nurseries/nurseries, planting, plant care during the growth period, harvest and post-harvest.

Food security development in the Kodim area of Korem 063/SGJ (Sunan Gunung Jati) is carried out in the areas of Ciayumajakuning and Purwasuka (Cirebon, Indramayu, Majalengka, Kuningan, Purwakarta, Subang and Karawang). The location of this research is only limited to 4 areas that have differences and programs provided by the central government in the food independent village program and the food security program provided by the Army Headquarters. Empowerment through food security development in Kodim Kuningan Regency, Cirebon Regency, Majalengka Regency and Cirebon City is compared in **Table 1**.

Table 1. Empowerment through food security development activities Kodim area of the Korem 063/SGJ TA 2022.

Stages	Kodim 0615/Regency Kuningan	Kodim 0620/Regency Cirebon	Kodim 0617/Regency Majalengka	Kodim 0614/City Cirebon
Planning and Coordination Stage				
Land preparation				
Nursery				
Planting				
Planting care during growth with BIOS 44				
Harvest and Post-harvest				

Table 1. (Continued).

Stages	Kodim 0615/Regency Kuningan	Kodim 0620/Regency Cirebon	Kodim 0617/Regency Majalengka	Kodim 0614/City Cirebon
Evaluation	The organizer involves members who have participated in the Agricultural Skills Debriefing activity. So that the knowledge and skills that have been obtained can be directly practiced and transmitted to other members; The BIOS 44 DC (Deco) formula can minimize the use of commonly used chemical fertilizers and can accelerate growth plants so they are faster to harvest.	The organizer involves members who have participated in the Agricultural Skills Debriefing activity. So that the knowledge and skills that have been obtained can be directly practiced and transmitted to other members. The Bios 44 DC formula can minimize the use of commonly used chemical fertilizers and can accelerate plant growth so that it is faster to harvest.	The organizer involves members who have participated in the Agricultural Skills Debriefing activity. So that the knowledge and skills that have been obtained can be directly practiced and transmitted to other members. The BIOS 44 DC (Deco) formula can minimize the use of commonly used chemical fertilizers and can accelerate plant growth so that it is faster to harvest.	The organizer involves members who have participated in the Agricultural Skills Debriefing activity. So that the knowledge and skills that have been obtained can be directly practiced and transmitted to other members. The BIOS 44 DC (Deco) formula can minimize the use of commonly used chemical fertilizers and can accelerate plant growth so that it is faster to harvest.

Source: Research data processing.

To increase food availability in villages experiencing food insecurity, the government has provided assistance in the form of a food independent village program which is implemented in several villages in the Regency and City areas, there are various efforts and initiatives carried out to increase food availability at the regional/regional and global levels. The results of the comparison of community empowerment in the areas of Kuningan Regency, Cirebon Regency, Majalengka Regency and Cirebon City in the food independent village program in the matrix below **Table 2**.

Table 2. Comparison of community empowerment in the area that receives food independent village program.

Activities	Dukuhbadag Village Regency Kuningan	Pegagan Lor Village Regency Cirebon	Buninagara Village Regency Majalengka	Kesambi Urban Village City Cirebon
Phase Preparation				
Selection of target locations	Survey according to the potential of the village	The survey is not in accordance with the potential of the village and is based on people's habits of consuming nasi aking	The survey is not in accordance with the potential of the village and the appointment from the district office	Survey according to proposal submission by farmer women's group (KWT/Kelompok Wanita Tani)
Assistance	Companion from Field Agricultural Extension (PPL/Penyuluh Pertanian Lapangan) Sub-district	Companion from PPL Sub-district	Companion from PPL Sub-district	Companion from the food security service
Village Financial Institutions (LKD/Lembaga Keuangan Desa) Growth	Capital management by affinity groups	Capital management by affinity groups	Capital management by affinity groups	Direct supervision from the district team
Distribution of Capital Assistance	Capital of IDR 100,000,000 to affinity groups for cattle, sheep and agriculture	Capital of IDR 100,000,000 to affinity groups for cattle, sheep and agriculture	Capital of IDR 100,000,000 to affinity groups for cattle, sheep and agriculture	Funds are given for the construction of plant nursery infrastructure

Table 2. (Continued).

Activities	Dukuhbadag Village Regency Kuningan	Pegagan Lor Village Regency Cirebon	Buninagara Village Regency Majalengka	Kesambi Urban Village City Cirebon
Phase Growth				
Community Empowerment	<p>Training by Companions to Affinity Groups</p> <p>There is a bottleneck in capital management by the stuck-up affinity group</p> <p>Establish village owned enterprises (BUMDES/Badan Usaha Milik Desa) and take over the management of financial management for businesses according to the potential of the village through the Savings and Loan Unit (USP /Uang Simpan Pinjam)</p>	<p>Training by Companions to Affinity Groups</p> <p>There is a bottleneck in capital management by the stuck-up affinity group</p> <p>Capital is stuck, business is not running and money is not coming back</p> <p>The development in the form of a food independent area program (KMP/Kawasan Mandiri Pangan) as a continuation of the food independent village program was given to Panguragan District</p>	<p>Training by Companions to Affinity Groups</p> <p>There is a bottleneck in capital management by the stuck-up affinity group</p> <p>Capital is stuck, business is not running and money is not coming back</p>	<p>Training to the service to KWT</p> <p>Business is not running</p> <p>Business is not running</p>
Support for infrastructure development	<p>Support for the development of facilities according to the potential of the village in the form of Pasundan cattle as an icon of Dukuhbadag Village</p>	<p>Program development is non-existent</p>	<p>Program development is non-existent</p>	<p>Program development is non-existent</p>
Development Stage				
The development phase is carried out to: strengthen and develop the dynamics and productive efforts of affinity groups	<p>The development of the institutional function of capital services in the form of savings and loans/USP through BUMDES Dukuhbadag Village, Cibingbin District is running smoothly with the aim of increasing the food security of household families, increasing the knowledge and skill level of the community and changing their mentality</p>	<p>The development continued with a new program from the center with different sub-district locations, namely Panguragan District. Considering the program, Panguragan District is more prepared, both stakeholders and the community</p>	<p>No development</p>	<p>No development</p>
Independence Stage				
Improvements have been made to the operations of capital institutions, affinity group businesses, as well as mentality and behavior.	<p>The formation of village independence and the (Demapan/Desa Mandiri pangan) food independent village program continues to this day through capital management through BUMDES Dukuhbadag Village, Cibingbin District, Kuningan Regency</p>	<p>Cirebon independence is given in Panguragan District called a food area. For KMP in Panguragan District, Cirebon Regency is still running until now by carrying out annual members meeting (RAT/Rapat Anggota Tahunan) every year</p>	<p>Village independence is not formed</p>	<p>No independence formed</p>

Table 2. (Continued).

Activities	Dukuhbadag Village Regency Kuningan	Pegagan Lor Village Regency Cirebon	Buninagara Village Regency Majalengka	Kesambi Urban Village City Cirebon
Independence Stage				
Evaluation	The program runs in accordance with the stages and has an impact on the development of village potential, sustainable programs	The program does not run according to the stages, does not have an impact on the development of village potential, the program is disconnected and unsustainable	The program does not run according to the stages, does not have an impact on the development of village potential, the program is disconnected and unsustainable	The program runs in accordance with the proposal submitted by KWT and does not have an impact on the development of the potential of the village/sub-district, the program is not sustainable

Source: research data processing.

4. Fostering food security in the ranks of Kodim area of the Korem 063/SGJ TA 2022

In the midst of efforts to realize national food security, the 1 Ha pilot project model is present as a glimmer of hope. On an area of 1 Ha, rice or corn is planted with the most suitable varieties in the area, using biotech 44 organic fertilizer. The process begins with the preparation of land carried out by the TNI. The land is cleared, cultivated, and prepared for planting. The TNI, with its discipline and enthusiasm, plays an important role in ensuring optimal land readiness. Rice or corn seeds that have been selected are carefully planted, growing the hope of a bountiful harvest. BIOS 44 organic fertilizer, with its environmentally friendly content, helps plants grow flourishing and produce a quality harvest. This pilot project model is not only about planting rice or corn, but also about planting knowledge and expertise. Farmers in the pilot project area receive training and assistance from the TNI and related agencies, learning modern agricultural techniques that are environmentally friendly and sustainable. The success of this pilot project model will be clear evidence that the TNI is not only able to maintain state security, but also contribute to realizing food security. This model can be replicated in other regions, encouraging increased crop yields and national food security. More than just planting rice or corn, the 1 Ha pilot project model is to plant hope for a more prosperous future, where food security is the main pillar for the Indonesian nation.

In the midst of limited land, the horticultural crop demonstration plot model is present as a smart solution to plant hope and increase food security. Horticultural crop demonstration plot model in the form of vegetables such as chilies, tomatoes and eggplants using BIOS 44 on a polybag with a diameter of 25 to 30 cm with a minimum of 100 pieces starting from Preparation of place/land, providing planting media, preparing vegetable seeds to be planted into polybags, Planting, after the planting media is ready to be planted, planting vegetable seeds into polybags which has been given planting media, plant care and crop products (harvest). The process begins with the preparation of the place and land. The land is cleared and leveled, becoming the foundation for polybags to be neatly arranged. The planting medium is carefully prepared, combining fertile soil, BIOS 44 organic fertilizer, and other materials to

produce an optimal growing environment for plants. Vegetable seedlings that have been carefully sown, ready for planting in polybags. One by one, the seedlings are carefully planted, growing the hope of a bountiful harvest. Plant care is also the main key. Watering, fertilizing, and pest and disease control are carried out regularly, ensuring optimal plant growth. After a few weeks, horticultural crop demonstration plots began to show results. Chili, tomatoes and eggplants bear heavy fruits, ready to be harvested and enjoyed. These crops not only meet the family's food needs, but can also be sold to increase income. The horticultural crop demonstration plot model with BIOS 44 has many benefits. In addition to saving land, this model is also environmentally friendly and easy to apply in various places, even in the yard of the house. The community can learn good plant cultivation techniques and improve food security in their environment.

On a global scale, climate variability and extremes are major drivers of food insecurity, particularly in regions with limited agricultural productivity and resources (Fitzpatrick et al., 2020). Economic slowdowns and downturns can also exacerbate food insecurity, leading to increased poverty and inequality (Morales et al., 2024). Addressing these challenges requires a multifaceted approach that includes social safety net programs, charitable contributions, and international cooperation to build more productive and resilient food systems (Nguyen et al., 2019). The United Nations' Sustainable Development Goals (SDGs) aim to end hunger, achieve food security, and promote sustainable agriculture by 2030, requiring strong international collaboration to build more productive and resilient food systems.

The "Desa Mandiri Pangan" program in West Java Province is facing challenges in achieving its maximum potential. Efforts to enhance food self-sufficiency and food security are ongoing, however, there are indications that the program may not be operating optimally. Various factors, including the impact of the COVID-19 pandemic on national and household food security in Indonesia, may be influencing this situation (Ranta and Mulrooney, 2021). Additionally, the intention to register halal certification among micro and small-scale food enterprises could potentially enhance food security initiatives (Daniel et al., 2022). An evaluation of food security in East Java Province utilizing advanced techniques such as Fuzzy C-Means (FCM) and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) can offer insights into the challenges faced in the farming sector, potentially leading to increased food prices and harm to all involved parties (Kopiyawattage et al., 2019). Innovative food processing technology solutions are crucial for improving food quality, safety, and availability, addressing issues like post-harvest losses and limited access to modern processing technologies (Garlock et al., 2022; Viana et al., 2022).

Analysing regional development patterns in West Java Province using machine learning can help prioritize human development to enhance welfare and quality of life, which is vital for effective food security programs. Understanding the impact of inflation and consumption credit on the community's purchasing power is essential for designing policies that support food security initiatives (Golovin et al., 2021). Efforts to empower communities through religious education and Islamic social resilience, such as constructing halal food barns in villages, can contribute to enhancing food security at the grassroots level (Lestari, 2024). Forecasting poverty data using advanced modelling techniques like Seasonal autoregressive integrated

moving average (ARIMA) in West Java Province can provide valuable insights for designing targeted poverty alleviation programs to support food security initiatives.

Community empowerment through the Food Independent Village program and food security development by the TNI Regional Command Unit (Satkowil) has an effect on food availability, food distribution, and food consumption in the region. The Food Independent Village Program aims to increase food availability in the region through the development of availability subsystems, distribution subsystems, and consumption subsystems by utilizing local resources in a sustainable manner (Munaweera et al., 2022; Nugroho et al., 2022). More equitable food distribution can help reduce disparities in people's access to nutritious food. More efficient food transportation can help improve people's access to nutritious food.

To overcome the problem of suboptimal food security development in the ranks of the TNI, comprehensive efforts are needed from all parties. The government needs to provide adequate budgets and training for units in the ranks of the Indonesian Army. In addition, effective coordination between the Indonesian Army and related agencies, such as the Ministry of Agriculture, the Ministry of Villages, Development of Disadvantaged Regions and Transmigration, and local governments is needed. The empowerment of TNI AD units in fostering food security has many benefits. In addition to helping to increase crop yields and farmers' welfare, this can also strengthen the unity of the TNI with the people. The development of food security by the TNI Satkowil has an impact on increasing food production, through pilot project activities for planting 1 Ha of rice/corn and demonstration plots of horticultural crops using BIOS 44 technology. Korem 063/Sunan Gunung Jati plays an important role in maintaining food security in its area. One of the flagship programs is the implementation of a pilot project on 1 Ha of land using BIOS 44 organic fertilizer. This program aims to increase crop yields, empower farmers, and strengthen the unity of the TNI with the people. Although the program has shown positive results, there are still some challenges that need to be overcome. One of them is the lack of comprehensive food security development from all parties. This causes the program to not be able to reach all regions and food commodities. Efforts to overcome this challenge require cooperation and synergy from all parties, both the government, the TNI, the private sector, and the community.

5. Conclusion

The empowerment program implemented by the ranks of Satkowil (regional command unit) has an impact on increasing food production by fostering regional resilience and community empowerment in the food independent village program in Dukuhbadag Village that the program runs according to the stages and has an impact on the development of sustainable village potential, but other villages still have not had an impact on the development of village potential and are not sustainable. Food shortages pose a serious threat to public health and hinder development. Efforts to improve food security require commitment and concrete action from all parties. One of the important strategies is to empower the TNI AD Regional Command Unit (Satkowil) in fostering regional resilience. In the midst of this joint effort, the TNI AD Regional Command Unit (Satkowil) has a strategic role in empowering the community

and increasing food production. The great potential of Satkowil lies in the discipline, enthusiasm, and technical ability of its soldiers who can help farmers in various fields, such as land cultivation, planting, harvesting, and post-harvest.

Further efforts are needed to ensure the success and sustainability of community empowerment programs in realizing regional food security in all locations. Community empowerment programs to realize food security in various regions have shown great potential. However, to ensure its success and sustainability, strategic measures that take into account the local context, strengthen community institutions and capacities, provide infrastructure and market access, encourage innovation and appropriate technology, and conduct continuous monitoring and evaluation. With a specific approach, adequate support, and ongoing commitment, community empowerment programs can be the key to achieving food security in all locations, building economic independence for the community, and realizing a more prosperous future for the Indonesian nation. This research is expected to provide a comprehensive overview of the implementation of the food independent village program and food security development activities by regional command units in West Java. The results of this study can be a valuable input for relevant stakeholders in an effort to improve food security in Indonesia.

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