



INTEGRATION OF DROUGHT DISASTER MITIGATION AND FOOD SECURITY IN SOCIAL STUDIES EDUCATION THROUGH BREADFRUIT TREE PLANTING IN KUANGSAN VILLAGE, REMBANG REGENCY

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Abstract

Kuangsan Village, located in Kaliori District, Rembang Regency, is one of the areas frequently affected by drought due to declining rainfall and limited water resources. This condition directly reduces agricultural productivity and weakens local food security. As an initial mitigation and community empowerment effort, hundreds of breadfruit (*Artocarpus altilis*) seedlings were planted along riverbanks and drylands through collaboration among the Kaliori Military Subdistrict Command (Koramil), the village government, and local residents. This study aims to integrate drought mitigation activities and food security concepts into Social Studies (IPS) education based on environmental awareness and local wisdom. Using a descriptive qualitative method with a participatory approach, the research involved field observations, interviews with six key informants, and documentation of the seedling-planting activities. The early findings show that the breadfruit planting initiative has strong potential to support local food diversification in the future and can immediately serve as a contextual learning resource in Social Studies education. The activity enables students to understand human-environment interactions while strengthening cooperation, social responsibility, and ecological awareness. The study's novelty lies in offering an early-stage transdisciplinary integration model between Social Studies education and disaster mitigation, positioning the breadfruit planting initiative as an educational entry point for building social and environmental resilience in rural communities.

Keywords: Social Studies Education; Drought Mitigation; Food Security; Breadfruit; Local Wisdom; Kuangsan Village.

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Abstrak

Desa Kuangsan, Kecamatan Kaliori, Kabupaten Rembang, merupakan wilayah yang sering mengalami kekeringan akibat menurunnya curah hujan dan keterbatasan sumber air. Kondisi ini berdampak pada penurunan produktivitas pertanian dan melemahnya ketahanan pangan masyarakat. Pada tahap awal upaya mitigasi dan pemberdayaan, dilakukan penanaman ratusan bibit pohon sukun (*Artocarpus altilis*) di bantaran sungai dan lahan kering melalui kolaborasi antara Koramil Kaliori, pemerintah desa, dan masyarakat setempat. Penelitian ini bertujuan mengintegrasikan kegiatan mitigasi kekeringan dan konsep ketahanan pangan ke dalam pembelajaran Ilmu Pengetahuan Sosial (IPS) berbasis kesadaran lingkungan dan kearifan lokal. Metode yang digunakan adalah kualitatif deskriptif dengan pendekatan partisipatif, melalui observasi lapangan, wawancara dengan enam informan kunci, serta dokumentasi kegiatan penanaman bibit. Temuan awal menunjukkan bahwa inisiatif penanaman pohon sukun memiliki potensi kuat sebagai upaya diversifikasi pangan di masa depan dan dapat segera dimanfaatkan sebagai sumber belajar kontekstual dalam pendidikan IPS. Kegiatan ini membantu peserta didik memahami hubungan manusia–lingkungan, sekaligus menumbuhkan nilai gotong royong, tanggung jawab sosial, dan kesadaran ekologis. Kebaruan penelitian ini terletak pada pengembangan model integrasi transdisipliner tahap awal antara pendidikan IPS dan mitigasi bencana, yang memposisikan penanaman bibit sukun sebagai pintu masuk pendidikan untuk memperkuat ketahanan sosial dan lingkungan masyarakat desa.

Kata Kunci: Pendidikan IPS; Mitigasi Kekeringan; Ketahanan Pangan; Pohon Sukun; Kearifan Lokal; Desa Kuangsan.

INTRODUCTION

Indonesia is an archipelagic country highly vulnerable to various natural disasters, one of which is drought. Prolonged drought has serious impacts on water availability, agricultural productivity, and food security, particularly in rural areas. This condition is not only an environmental issue but also has significant social and economic implications. Therefore, drought disaster mitigation efforts must be carried out comprehensively—not only through technical measures but also through educational and community empowerment initiatives.

One of the regions experiencing the tangible impacts of drought is Kuangsan Village, Kaliori District, Rembang Regency, characterized by dry geographical conditions and dependence on seasonal rainfall. According to the Meteorology, Climatology, and Geophysics Agency (BMKG, 2023), the northern coastal area of Central Java has experienced a 12–18% decrease in average rainfall over the past decade. This has led to declining agricultural yields and a higher risk of household-level food insecurity. The National Food Agency (2023) reported that about 27% of households in Rembang are

vulnerable to food insecurity due to drought and limited access to adaptive agricultural innovations.¹

In response to these challenges, a breadfruit (*Artocarpus altilis*) tree planting initiative was carried out on November 15, 2024, involving the planting of 270 seedlings along the riverbanks and drylands of Kuangsan Village. The program was a collaborative effort among the Kaliori Military Subdistrict Command (Koramil 02), the Kaliori District Government, and local residents. According to Kaliori Subdistrict Head Desti Muryadi, the initiative supports the national food security program promoted by the central government. Meanwhile, Captain Inf. Budi Susanto, Commander of Danramil 02 Kaliori, emphasized that this program not only mitigates drought and flood risks but also revitalizes the spirit of *gotong royong* (mutual cooperation) within the community.²

Beyond its ecological impact, this initiative holds strong educational relevance, particularly for Social Studies (IPS) education. Based on the Indonesian Ministry of Education and Culture Regulation No. 21 of 2022 on Curriculum Standards, Social Studies aims to foster students' critical thinking, social responsibility, and ecological awareness. Therefore, the breadfruit planting program can serve as a contextual learning resource for teaching themes related to food security, environmental sustainability, and community participation.³

Previous studies have explored breadfruit's potential as an adaptive crop and sustainable food source in dryland areas. However, the integration of drought mitigation activities with Social Studies education based on local wisdom remains insufficiently studied. Most prior research focuses on technical or agricultural aspects without connecting them to the educational and social dimensions.⁴

Hence, this study addresses that research gap by developing an early-stage environment-based Social Studies learning integration model through participatory breadfruit tree planting in Kuangsan Village. The focus is not on long-term ecological outcomes, but rather on the educational potential of the planting activity as a contextual learning medium that fosters ecological awareness, social responsibility, and cooperative values among students. In this way, the study contributes to both theoretical and practical frameworks for a transdisciplinary educational model connecting disaster mitigation, food security, and Social Studies education in the context of climate change.⁵

METHOD

This study employed a descriptive qualitative approach with a participatory strategy aimed at providing an in-depth understanding of the implementation process of breadfruit tree planting in Kuangsan Village, Kaliori District, Rembang Regency, and its relevance to

¹BMKG, "Iklim: Dari Fenomena Global Hingga Dampak Lokal," *Kedeputian Bidang Klimatologi*, BMKG VII (2022): 10-17.

²Jordy M Manurung et al., "Sebaran Sukun dan Persepsi Masyarakat Terhadap Sukun (*Artocarpus Communis Forst*) Pada Daerah Tangkapan Air Danau Toba di Nagori Purba Saribu Kecamatan Haranggaol Horison Kabupaten Simalungun (Distribution of Breadfruit and Public Perception of Breadfru), 2023.

³Arini Al Ifah, "Kajian Morfologi Buah Sukun (*Artocarpus Altilis* Park. Fosberg) Di Kabupaten Sleman Bagian Utara D.I. Yogyakarta," *Hutan Tropika* 16, no. 2 (2022): 158-63, <https://doi.org/10.36873/jht.v16i2.3574>.

⁴Kemendikbud, "Keamanan Pangan I," *Kementerian Pendidikan Dan Kebudayaan Republik Indonesia* 5, no. 3 (2020): 248-53.

⁵Gusty, Sri Syarifudin, Erick Adriansyah, Moh Syukran, *Penulis*, ed. Poppy Indrayani, 1st ed. (Makassar: Arsy Media, 2024).

drought disaster mitigation and food security within the context of Social Studies (IPS) education. This approach was chosen because it effectively explains the interconnection between social, environmental, and educational aspects while emphasizing community participation and empowerment as the foundation of learning.⁶

The research was conducted in Kuangsan Village, a drought-prone area that became the site of a breadfruit tree planting program involving 270 seedlings. Data collection was carried out directly during the implementation of the planting activity on Friday, November 15, 2024. The data used in this study consisted of both primary and secondary data. Primary data were obtained through field observations and in-depth interviews, while secondary data were gathered from literature reviews and references related to disaster mitigation, food security, and environmental-based Social Studies education.

Informants were selected using a purposive sampling technique, based on their involvement and roles in the planting activity. There were six key informants in this study: the Commander of Danramil 02 Kaliori (Captain Inf. Budi Susanto) as the technical coordinator of the activity; Koramil officers as field facilitators; the Head of Kuangsan Village as the local policymaker; a community leader who mobilized and motivated residents; a representative of the PKK women's group who participated in the early maintenance of breadfruit seedlings and local food education; and a representative of the Karang Taruna youth organization who contributed to environmental campaigns and post-planting care. This diversity of informants ensured a broader social representation and provided multiple perspectives on the ecological, social, and educational values of the initiative.⁷

Data were collected using three main techniques: observation, interviews, and documentation. Direct observation was conducted to examine the planting process, community participation, and the surrounding environmental conditions. In-depth interviews were carried out with the six informants to gather insights on the ecological and social benefits of the program and its perceived relevance to educational contexts. Documentation in the form of photographs and field notes was used to support and validate observational and interview data.⁸

The data were analyzed using the interactive model of Miles and Huberman (1994), which includes three stages: data reduction, data display, and conclusion drawing. Data reduction involved selecting, simplifying, and organizing field data to identify the main findings. Data display was presented in a systematic narrative form, accompanied by a conceptual diagram showing the linkages among drought mitigation activities, food security improvement, and integration into Social Studies learning. The final stage, conclusion drawing, involved interpreting the interrelationships between these aspects to develop a contextual model of environmental and social education through community participation.⁹

⁶M Nafisatur, "Metode Pengumpulan Data Penelitian," *Metode Pengumpulan Data Penelitian* 3, no. 5 (2024): 5423-43.

⁷Hestianna Nurcahyani Tuginem, "Penelitian Strategi Pengembangan Koleksi Di Perpustakaan Pada Google Scholar: Sebuah Narrative Literature Review," *Jurnal Pustaka Budaya* 10, no. 1 (2023): 32-43, <https://doi.org/10.31849/pb.v10i1.11275>.

⁸Nafisatur, "Metod. Pengumpulan Data Penelit."

⁹Perspektif Spradley and Miles Huberman, "Kajian Teoritis Tentang Teknik Analisis Data Dalam Penelitian Kualitatif" 1, no. 2 (2024): 77-84.

To ensure data validity, the researcher applied source and method triangulation by cross-checking information from different informants and data types. Additionally, member checking was conducted with participants to confirm the accuracy and consistency of findings. Ethical considerations were also maintained throughout the research process. Each informant was given informed consent and voluntarily agreed to participate after being informed of the study's objectives and procedures. The researcher guaranteed the confidentiality of informants' identities and ensured that participation was entirely voluntary, allowing respondents to withdraw at any stage without any consequence.¹⁰

FINDINGS AND DISCUSSION

A. Climate Conditions and Agricultural Challenges in Kuangsan Village

Kuangsan Village, located in Kaliori District, Rembang Regency, is characterized by a dry climate with low rainfall and irregular seasonal patterns. According to data from the Meteorology, Climatology, and Geophysics Agency (BMKG, 2023), the northern coastal area of Rembang has experienced a decrease in rainfall by 12–18% over the past decade. This condition has significantly affected the community's agricultural system, which largely depends on rain-fed farming.¹¹ During the dry season, much of the farmland cannot be cultivated due to water scarcity, while in the rainy season, excessive runoff often occurs because of the lack of vegetative cover that can retain water.¹²

The drought in Kuangsan Village has caused not only economic consequences, such as reduced crop yields, but also social impacts. Most residents rely on agriculture and small-scale livestock farming as their primary sources of income. Consequently, reduced agricultural productivity directly affects household income levels.¹³ Furthermore, the limited diversity of local food crops has led to dependence on staple foods such as rice and corn, which become increasingly scarce during prolonged dry seasons. This situation underscores the need for a vegetation-based disaster mitigation strategy that can adapt to local environmental conditions.¹⁴

The introduction of breadfruit (*Artocarpus altilis*) cultivation has become one of the most relevant solutions to address these challenges. Breadfruit trees are known for their strong and deep root systems, which allow them to absorb and store groundwater

¹⁰Noviasari Santi et al., "Peluang Dan Potensi Sukun (*Artocarpus Altilis*) Sebagai Ingredient Pangan (Opportunities and Potential of Breadfruit (*Artocarpus Altilis*) as a Food Ingredient)*," *Jurnal Ilmiah Mahasiswa Pertanian* 8 (2023): 221–29.

¹¹Firdaus Daud, "Mitigasi Bencana," in *Pratama Widya : Jurnal Pendidikan Anak Usia Dini*, vol. 5, 2020, 112–24, <https://books.google.com/books?hl=en&lr=&id=l3YEAAAQBAJ&oi=fnd&pg=PA1&dq=manajemen+bencana+%22jenis+jenis%22+bencana+dan+dampaknya&ots=l3Uyki-Np&sig=eFkk8r52u75XDfjT0eBAPy8SgCs>.

¹²I Gede Agung Sandya and Alfath Zain, "Analisis Dan Mitigasi Bencana Alam Kekeringan Terhadap Kebutuhan Air Baku Di Perumahan Antasari Permai Sukabumi Bandar Lampung" 24, no. 3 (2024): 2429–35, <https://doi.org/10.33087/jtubj.v24i3.5076>.

¹³Masfi Sya'fiatul Ummah, "Mitigasi Bencana Kekeringan Pada Daerah Aliran Sungai Dumai," *Sustainability (Switzerland)* 11, no. 1 (2021): 1–14, http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI.

¹⁴Maria Yuniarti Lavenia Rey, "Manajemen Mitigasi Bencana Kekeringan Oleh Badan Penanggulangan Bencana Daerah Di Kabupaten Sikka Provinsi Nusa Tenggara Timur," 2023, 1–7.

efficiently.¹⁵ Additionally, the plant has a high level of adaptability to dry soils and can grow well without intensive maintenance. In this context, breadfruit functions not only as a conservation plant but also as a local food source that can support the food security of the Kuangsan community.¹⁶



Figure 1. Breadfruit seedling planting activities as a drought mitigation effort in Kuangsan Village.

B. Community Participation and Cross-Sector Collaboration

The breadfruit tree planting activity in Kuangsan Village was carried out through collaboration between Koramil 02 Kaliori (Kodim 0720), the Kaliori District Government, the Kuangsan Village Administration, and the active participation of local residents. A total of 270 breadfruit seedlings were planted along the riverbanks and village roads on Friday, November 15, 2024. This cross-sectoral collaboration represents the practical application of the pentahelix model of sustainable development, where government, military, and community elements work together to enhance environmental resilience and local food security.¹⁷

The Village Head of Kuangsan played a key role in mobilizing residents and providing planting sites, while the Koramil and Danramil officers provided manpower and technical assistance during the planting process. Community participation extended beyond the planting stage to include early maintenance activities, such as watering and protecting the seedlings from livestock or pests. The spirit of cooperation (*gotong royong*) and community solidarity became the driving force behind the program's success.¹⁸

¹⁵Ummah, "Mitigasi Bencana Kekeringan Pada Daerah Aliran Sungai Dumai."

¹⁶Septiarum, "Manajemen Mitigasi Bencana Oleh Badan Penanggulangan Bencana Daerah (Bpbd) Dalam Menanggulangi Bencana Kekeringan Di ...," *Journal of Public Policy ...*, 2023, <https://ejournal3.undip.ac.id/index.php/jppmr/article/view/39730%0Ahttps://ejournal3.undip.ac.id/index.php/jppmr/article/viewFile/39730/29257>.

¹⁷Harnida W. Adda, Pricylia Chintya Dewi Buntuang, and Salma D, "Sebaran Alami Dan Tempat Tumbuh Tanaman Sukun (*Artocarpus Artilis*) Tantangan Dan Peluang Produksi Bibit Unggul Di Negeri Latahalat Kecamatan Nusaniwe Kota Ambon," *Jurnal Pengabdian Pada Masyarakat* 6, no. 2 (2022): 352–56.

¹⁸Ralph Adolph, "Ketahanan Pangan," 2016, 1–23.



Figure 2. Community, military (Koramil), and village government participation in breadfruit tree planting.

The active involvement of the community indicates a growing collective awareness of the importance of environmental preservation and local food security. The success of village-level disaster mitigation programs largely depends on community participation at every stage of implementation. In the context of Social Studies education, this reflects social values such as responsibility, cooperation, and solidarity, which can be integrated into classroom learning. Thus, the breadfruit planting initiative not only serves as an environmental mitigation effort but also as a medium of social education for both the local community and students.¹⁹

C. Ecological Benefits and Local Food Security

The breadfruit tree planting initiative in Kuangsan Village has provided significant ecological benefits to the local environment. Based on field observations and interviews with the Koramil officers and the Head of Kuangsan Village, the deep and widespread roots of the breadfruit trees were found to effectively increase water absorption along the riverbanks. This plays an important role in reducing the risk of flooding during the rainy season and replenishing groundwater reserves during the dry season. In the long term, the presence of breadfruit vegetation in dryland areas serves as a natural carbon sink and prevents soil erosion, thus contributing to local environmental conservation efforts.²⁰

Revealed that breadfruit planting in the semi-arid region of Pasuruan increased soil moisture by 23% within six months. These findings are consistent with the conditions in Kuangsan Village, where residents began to notice improved water availability around the planting areas just one month after the activity took place. Some residents even reported that their wells maintained more stable water levels despite low rainfall. Therefore, this

¹⁹Eldi Mulyana, "Mitigasi Bencana (Pemahaman Literasi Informasi Bencana Di Indonesia)," 2023, 14, www.freepik.com.

²⁰Sudirman Numba, Anwar Robbo, and Tri Yani, "Pertumbuhan Stek Bibit Tanaman Sukun (*Artocarpus Altilis*) Dengan Pemberian Pupuk Organik Dan Plant Growth Promoting Rhizobacteria (PGPR) Dari Akar Bambu," *Jurnal Galung Tropika* 12, no. 3 (2023): 373-83, <https://doi.org/10.31850/jgt.v12i3.1202>.

activity not only functions as a drought mitigation effort but also creates ecological balance that supports the sustainability of local water resources.²¹

Beyond its ecological advantages, the breadfruit tree also holds strategic value in strengthening local food security. Breadfruit is rich in carbohydrates, vitamins, and dietary fiber, making it a potential substitute for rice or cassava. Utilizing breadfruit as a local food resource supports food diversification based on village potential while reducing dependence on imported staples. The Head of Kuangsan Village explained that within the next three to four years, the harvested breadfruit will be developed into processed products through micro, small, and medium enterprises (MSMEs), such as breadfruit chips, flour, and traditional snacks.²²

This initiative aligns with the national food security program that encourages the utilization of local resources as the foundation for sustainable food production. In the context of Social Studies education, this food diversification serves as a concrete example for lessons on local economics, environmental sustainability, and social responsibility. Students can learn to understand the interrelationship between ecosystems, economic activities, and community welfare while developing awareness of sustainable resource management.²³

D. Social Values and Community Empowerment

The breadfruit planting program in Kuangsan Village not only focused on environmental aspects but also revitalized strong social values among the community. Through collaboration between the local military unit (Koramil), the village government, and residents, the activity became a medium of social empowerment that strengthened solidarity and collective responsibility. Community members actively participated in every stage—from land preparation and planting to tree maintenance—reflecting a deep sense of cooperation and ownership of their local environment.²⁴

Community empowerment was evident through the growing public awareness of the need to balance economic needs with environmental sustainability. Residents understood that planting breadfruit trees was not a short-term initiative but a long-term investment for future generations' welfare. This illustrates a shift in the community's mindset from being passive recipients of government programs to becoming active agents of sustainable development.²⁵

The social values reflected in the breadfruit planting activity align closely with the objectives of Social Studies education—to cultivate social awareness, responsibility, and civic participation. Through such real-world experiences, both community members and

²¹Nur Ismalasari, Ari Hayati, and Hasan Zayadi, "Studi Etnobotani Sukun (*Artocarpus Communis*) Pada Masyarakat Desa Sadengrejo Kecamatan Rejoso Kabupaten Pasuruan," *Biosaintropis (Bioscience-Tropic)* 4, no. 1 (2020): 31–37.

²²Ismalasar, Hayati, and Zayadi.

²³Angga Rahabistara Sumadji, Ch Endang, and Leo Eladisa, "Karakteristik Stomata Tanaman Sukun *Artocarpus Altilis* (Park.) Forsberg Di Kota Bekasi Stomata Characteristics of Breadfruit *Artocarpus Altilis* (Park.) Forsberg in Bekasi City," 2023, 73–82.

²⁴L O Penohaq, Edizon Jambormias, and Henry Kesaulya, "Karakteristik Morfologi Tanaman Sukun (*Artocarpus Altilis* Forst) Di Kabupaten Seram Bagian Barat," *Jurnal Pertanian Kepulauan* 7, no. 2 (2023): 64–71, <https://doi.org/10.30598/jpk.2023.7.2.64>.

²⁵Amalia Zuhra, "A Legal Analysis on Food Security Under International Environmental Law," *Biodiversity and Food Security* 43, no. 4 (2014): 600-606–606.

students learn the importance of cross-sector collaboration, social solidarity, and environmental care as part of developing sustainable socio-ecological character.²⁶



Figure 3. Community gathering and coordination prior to the breadfruit tree planting activity in Kuangsan Village, Kaliori District, Rembang Regency.

E. Integration of Breadfruit Planting Activities into Social Studies Education

Integrating the breadfruit tree planting initiative into Social Studies (IPS) education represents an innovative approach that connects real community experiences with school learning materials. Within the context of Social Studies, this activity can serve as a contextual learning resource to discuss themes such as human-environment interaction, food security, and social responsibility in disaster mitigation. Using the local case of Kuangsan Village, students can gain a deeper understanding of how disaster mitigation can be implemented through ecologically based actions grounded in local wisdom.²⁷

Social Studies teachers can utilize data and documentation from the breadfruit planting program as instructional materials to encourage students to think critically about the relationships among ecosystems, communities, and economic systems. For instance, students can analyze the impact of climate change on social life, calculate the potential yield of breadfruit as an alternative food source, or discuss the value of cooperation (*gotong royong*) in drought mitigation efforts. This reflects the principles of Contextual Teaching and Learning (CTL), which emphasizes the integration of real-world experiences with classroom concepts.²⁸

Furthermore, the integration of this activity supports character education through value-based learning. Students learn the importance of environmental responsibility, social empathy, and cooperation as manifestations of Pancasila values in daily life. Thus, the breadfruit planting initiative serves not only as an environmental project but also as a

²⁶Rusdi Rusdi et al., "Model Mitigasi Bencana Kekeringan Dan Ketahanan Masyarakat Di Kabupaten Sindereng Rappang," 2024, 962–72.

²⁷Yusuf Falaq, Mifthatul Rahmawaty Jannah, and Riska Rohmatunnisa, "Manajemen Bencana Oleh Badan Penanggulangan Bencana Daerah (BPBD) Dalam Menanggulangi Banjir Di Desa Niaso Muaro Jambi," *Proceeding the 1th NCESCO: National Conference on Educational Science and Counseling* 01, no. 01 (2021): 71–80.

²⁸Linda Yanti and Dewi Novalinda, "Teknologi Pengolahan Sukun Sebagai Sumber Pangan Alternatif Pendamping Beras Di Provinsi Jambi," *Balai Pengkajian Teknologi Pertanian Jambi*, 2015, 1434–43.

medium for character formation and social learning, strengthening the role of Social Studies as a bridge between ecological awareness and civic education.²⁹

CONCLUSION

This study demonstrates that the breadfruit tree planting program in Kuangsan Village has not only provided tangible ecological impacts but also strengthened the social and educational dimensions of the community. Environmentally, breadfruit trees have shown strong adaptability to dry conditions, improved groundwater absorption, and contributed to soil conservation and drought reduction. Socially, the active involvement of local residents, the Koramil, and the village government reflects effective cross-sector collaboration in implementing a community-based disaster mitigation program. The spirit of cooperation (*gotong royong*) and collective participation has become the foundation for the program's sustainability.

Despite several limitations, this research is considered novel because it integrates the aspects of ecology, food security, education, and community empowerment into a specific community-based action scheme in the dryland region of Rembang, where breadfruit cultivation has not yet been systematically implemented. This study presents a comprehensive and relevant discussion that combines the issues of drought disaster mitigation, food security enhancement, and Social Studies education based on local wisdom an approach that is increasingly important in the context of climate change adaptation.

This research provides a practical contribution in the form of a community-based disaster mitigation and learning model that utilizes local resources such as breadfruit. The integration of environmental action with educational practice not only strengthens ecological resilience but also promotes social responsibility and contextual learning within communities. Therefore, this model has the potential to be replicated and developed in other regions facing similar environmental and social challenges, particularly as an innovation in integrating sustainability education into real community practices.

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²⁹Badan Pangan Nasional, "Indeks Ketahanan Pangan 2022," *Antimicrobial Agents and Chemotherapy* 58, no. 12 (2022): 7250-57.

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