

Synergy Among Departmental Student Associations (HMDs) in Post-Disaster Recovery-Based Community Service Programs: Reflections on the Implementation of the Ikk FPP UNP Program in Nagari Sungai Landia 2026

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Abstract

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Post-disaster economic recovery requires not only immediate assistance but also the strengthening of community capacity to optimize local resources sustainably. Nagari Sungai Landia, IV Koto District, Agam Regency, was among the areas affected by a hydrometeorological disaster in late November 2025, which disrupted economic activities and community livelihoods. This community service program aimed to strengthen local economic capacity through collaboration among Department Student Associations (HMDs) in developing creative products based on local resources, improving product packaging, and expanding digital marketing capabilities. The program was conducted from February 2 to 28, 2026, involving 37 students from the Department of Family Welfare Science, Faculty of Tourism and Hospitality, Universitas Negeri Padang, together with community members of Nagari Sungai Landia. The program employed a Participatory Action Research (PAR) approach through observation, socialization, training, practical demonstrations, mentoring, and evaluation. The results show that the program successfully six processed banana products, as well as four ecoprint fashion products consisting of fabric, tote bags, skirts, and vests. The program resulted in the development of community capacity in product packaging through the application of vacuum sealing and product labeling, while strengthening bilingual digital marketing skills. As a sustainability-oriented output, the *Landia_Fresh* online store was successfully launched on Shopee as a marketing channel for village MSME products. The program demonstrates that collaboration between students and communities through local-potential-based innovation can support post-disaster economic recovery. Its implication is that continuous mentoring and partnerships among higher education institutions, communities, and local governments are essential for strengthening MSME independence and sustaining community economic recovery.

Keywords: Community Service, MSME Empowerment, Post-Disaster Recovery, Product Innovation, Ecoprint, Digital Marketing.

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INTRODUCTION

The hydrometeorological disaster that struck West Sumatra in late November 2025 was one of the largest humanitarian tragedies in modern Indonesian history. The disaster, which involved flash floods and landslides, affected three provinces simultaneously—West Sumatra, North Sumatra, and Aceh—with the death toll exceeding 1,200 people and causing substantial material losses (Badan Geologi KESDM, 2025). Agam Regency recorded the largest losses in West Sumatra, amounting to IDR 10.49 trillion out of the province's total losses

of IDR 33.5 trillion, with 192 people confirmed dead and 72 others still reported missing (Diskominfo Sumbar, 2025).

Nagari Sungai Landia, located in IV Koto District, Agam Regency, was one of the areas most severely affected by the disaster. According to the statement of the Head of IV Koto District, as reported by the RRI Lokal media team (2025), road access to the nagari was disrupted due to 10 landslide points along village roads and 15 points along provincial roads, temporarily isolating approximately 2,000 households from the outside world. Furthermore, 16 irrigation channels were destroyed, severely disrupting the primary livelihoods of local residents, most of whom work as farmers (RRI Lokal, 2025). This situation underscores the urgent need for economic recovery programs that extend beyond direct relief assistance and generate sustainable long-term impacts.

Nagari Sungai Landia possesses considerable natural and human resource potential. The nagari has been officially registered as a Tourism Village in the Tourism Village Network (Jejaring Desa Wisata/Jadesta) of the Ministry of Tourism and Creative Economy of the Republic of Indonesia, with attractions including the iconic valley landscape at the foothills of Mount Singgalang and abundant local flora. Kepok bananas are one of the major agricultural commodities in the area and have yet to be fully optimized for economic purposes, while the diversity of plants suitable for ecoprint production makes the area a rich source of raw materials for natural textile crafts.

Post-disaster recovery cannot rely solely on logistical assistance and the reconstruction of physical infrastructure. Wisner et al. (2004), within the framework of vulnerability theory, argued that a community's capacity to recover from disasters is largely determined by its ability to restore livelihoods rapidly and sustainably. This perspective reinforces the argument that productive economic empowerment programs constitute an integral component of the post-disaster rehabilitation and reconstruction phases.

Sulistyawati and Rahmawati (2020), in their study of post-disaster communities in Lombok, found that skills-based empowerment programs utilizing local resources, such as handicrafts and food processing, successfully increased average household income by up to 35% during the first six months following a disaster. A similar study by Hidayat (2019) in Palu following the 2018 earthquake demonstrated that MSMEs receiving technical assistance and digital marketing support recovered 2.3 times faster than MSMEs that did not receive such assistance.

Post-disaster community empowerment through a creative economy approach has been demonstrated to be effective in various studies. According to Sulistyawati and Rahmawati (2020), empowerment programs based on local potential can accelerate economic recovery while simultaneously strengthening community social resilience. Meanwhile, Purnomo et al. (2021) emphasized that the utilization of digital marketing for marketing MSME products following disasters can significantly expand market reach and increase the income of micro-entrepreneurs. In this context, an approach that integrates product innovation, professional packaging, and digital marketing represents the most comprehensive strategy.

Transforming local agricultural commodities into processed products with high added value is a key strategy for improving farmers' welfare. According to

Kemenristek/BRIN (2020), the added value of processed banana products can reach three to five times that of raw bananas sold directly to consumers. Kepok bananas (*Musa paradisiaca* L.) possess textural characteristics suitable for various forms of processing, ranging from banana chips to frozen food products, while also offering a relatively long shelf life (Satuhu & Supriadi, 2016). Nasution et al. (2021), in their study on banana-based product diversification in North Sumatra, found that training in the processing of kepok bananas into value-added products successfully increased the income of farmer groups by up to 40%. This success was supported by the abundant availability of raw materials, relatively low production costs, and high consumer acceptance of processed banana products (Nasution et al., 2021).

Ecoprint is a textile dyeing and printing technique that utilizes natural materials derived from plants, such as leaves, flowers, and tree bark, which contain tannins and natural pigments (Hughes, 2018). This technique has experienced a global resurgence in line with increasing consumer awareness of sustainable fashion and environmentally friendly products. Setiawan and Fatimah (2022) demonstrated that ecoprint products made from locally sourced Indonesian materials possess significant export market value, particularly in European and Japanese markets, where consumers are highly responsive to the ecological value of products. According to Handayani et al. (2021), ecoprint training programs in rural communities successfully increased artisans' income by up to 60% during the first year, with a competitive advantage derived from the exclusivity of patterns that cannot be identically replicated. This potential is highly relevant to the conditions of Nagari Sungai Landia, which possesses high floral diversity that can serve as a source of raw materials for ecoprint production.

The increasing penetration of e-commerce and social media in Indonesia has created substantial opportunities for rural MSMEs to access national and even international markets. According to a report by the Ministry of Cooperatives and SMEs (2022), MSMEs utilizing digital platforms experienced average revenue growth that was 30% higher than those relying solely on conventional marketing. Purnomo et al. (2021) further emphasized that digital literacy and the ability to develop bilingual content are significant distinguishing factors in the success of MSMEs in penetrating foreign tourist markets.

Although previous studies have demonstrated the importance of community empowerment, local entrepreneurship, digital marketing, and participatory approaches in post-disaster recovery, several gaps remain. Existing post-disaster empowerment initiatives in Indonesia have generally focused on individual components of recovery, such as strengthening local entrepreneurship, improving digital marketing capacity, or developing community-based economic activities. For example, previous research has highlighted the role of local community organizations and social capital in restoring livelihoods after disasters, while other community service programs have emphasized digital marketing assistance for disaster-affected MSMEs. Similarly, the application of Participatory Action Research (PAR) has been used to strengthen tourism village management and facilitate community participation in economic recovery. However, these approaches have not sufficiently addressed the integration of local agricultural resource utilization, creative fashion production, product standardization and

packaging, bilingual digital marketing, and cross-departmental student collaboration within a single post-disaster community empowerment framework.

A further gap concerns the limited documentation of integrated university–community empowerment models in disaster-affected rural and tourism-village contexts, particularly those that connect local resource diversification with market-oriented innovation and digital commercialization. Recent research continues to emphasize the importance of community participation and local organizational capacity in achieving sustainable post-disaster recovery, indicating that recovery should move beyond short-term assistance toward strengthening community economic independence and networks. Nevertheless, empirical accounts of how multidisciplinary student organizations can collaboratively facilitate this transition—from identifying local resources and developing value-added products to improving packaging and establishing digital market access—remain limited. This gap is particularly relevant in Nagari Sungai Landia, where the availability of kepok bananas, diverse plant resources, tourism potential, and community-based MSMEs provides an opportunity to develop an integrated recovery strategy. Therefore, this program addresses the identified gap by implementing a participatory, locally grounded, and market-oriented empowerment model that integrates food product diversification, ecoprint fashion innovation, professional packaging, bilingual digital marketing, and synergy among departmental student associations as interconnected components of post-disaster economic recovery.

Accordingly, this article aims to document and critically reflect on the implementation of an integrated post-disaster community empowerment model based on local-resource innovation and multidisciplinary student collaboration in Nagari Sungai Landia. Specifically, the article examines how synergy among departmental student associations can facilitate the development of value-added culinary and ecoprint products, improve MSME packaging and branding, strengthen bilingual digital marketing capabilities, and establish sustainable market access through e-commerce. The article contributes practical insights into how higher education institutions can support community-led economic recovery by connecting local resource optimization, entrepreneurial capacity building, creative product development, and digital market integration within a participatory post-disaster recovery framework.

RESEARCH METHOD

This community service program employed a Participatory Action Research (PAR) approach, positioning the community as an active subject throughout the processes of needs identification, program planning, implementation, and evaluation. This approach was selected because it is appropriate for the context of post-disaster community empowerment, which requires direct community involvement in capacity development and the utilization of local potential. The program was implemented from February 2 to 28, 2026, in Nagari Sungai Landia, IV Koto District, Agam Regency, West Sumatra, Indonesia, with a total implementation period of 27 days.

The program participants consisted of 37 students from the Department of Family Welfare Education, Faculty of Tourism and Hospitality, Universitas Negeri Padang, as well as targeted community members, including MSME actors,

housewives, youth, and residents of Nagari Sungai Landia who were interested in developing post-disaster businesses. Community participants were selected based on their relevance to the program's target groups and their interest in participating in the empowerment activities.

The program was implemented through four main stages. The first stage was observation and socialization, conducted from February 2 to 16, 2026, which included field surveys, mapping of local resource potential, and program socialization among community members. The second stage was culinary product production, conducted from February 17 to 22, 2026, through training and demonstrations on the processing of kepok bananas. The third stage was fashion product production and packaging, conducted from February 19 to 26, 2026, which included ecoprint training, the production of fashion products, and packaging development. The fourth stage was digital marketing and evaluation, conducted from February 26 to 28, 2026, which included bilingual digital marketing training and the launch of the Landia_Fresh online store through Shopee.

Data were collected through direct observation, photographic documentation, daily logbooks, and qualitative participant feedback. Observation was used to identify initial conditions and monitor the development of community members' skills, while documentation was used to record the processes and outcomes of the activities. Daily logbooks were used to document the implementation of the program, whereas participant feedback was collected to obtain information regarding participants' responses to and perceived benefits of the program.

The data were analyzed using a qualitative descriptive approach by interpreting the findings obtained from observations, documentation, logbooks, and participant feedback. Program success was evaluated based on three indicators: the number of products successfully produced and packaged according to established standards, the level of community participation and enthusiasm, and the successful launch of the online store as the final output of the program.

RESULTS AND DISCUSSION

1. Kepok Banana-Based Processed Food Production Program

The culinary program successfully introduced six variants of processed kepok banana products to the community: Original Banana Chips, Caramel Banana Chips, Balado Banana Chips, Frozen Pisang Kipas, Breaded Pisang Kipas, and Banana Serundeng. The selection of kepok bananas as the main ingredient was based on their abundant availability in the nagari, where they had previously been sold primarily in raw form at very low prices, as well as their distinctive texture and flavor characteristics.

The survey and mapping conducted on February 10, 2026, indicated that approximately 80% of business operators in Nagari Sungai Landia possessed basic skills in banana chip production but had not yet mastered product standardization techniques, flavor diversification, or attractive packaging. The training successfully addressed these gaps by introducing slicing techniques using a mandoline to ensure consistent thickness, frying standards using medium heat to achieve optimal texture, as well as caramel-making and seasoning-coating techniques that enhanced the products' aesthetic appeal and flavor.

The most significant innovation within the culinary program was the development of Frozen Pisang Kipas and Breaded Pisang Kipas as frozen food products, a product category that had previously been entirely unavailable in Nagari Sungai Landia. The frozen food concept provides substantially broader distribution opportunities because the products can be stored for extended periods and meet the needs of an increasingly growing modern consumer segment (Kementerian Perindustrian, 2021). Banana Serundeng also represents an innovative product that combines kepok bananas with peanuts, dried shrimp, and kaffir lime leaves, resulting in a distinctive flavor profile that is difficult to replicate.

These findings are consistent with Nasution et al., (2021), who emphasized that diversification of banana-based products significantly increases consumer acceptance and product market value. Furthermore, Satuhu & Supriadi, (2016) noted that processed banana products with diversified flavors and appropriate packaging can penetrate modern retail and e-commerce markets at selling prices three to five times higher than those of raw bananas.

2. Ecoprint Fashion Production Program

The fashion program focused on introducing and providing training in ecoprint techniques to the community, resulting in four types of products: ecoprint fabric, ecoprint tote bags, ecoprint skirts, and ecoprint vests, which were collectively marketed under the brand name Ecoprint Landia. The rich flora of Nagari Sungai Landia, including teak leaves, cosmos leaves, guava leaves, and fern leaves, was found to produce high-quality ecoprint patterns with strong and durable tannin imprints, consistent with the findings of field observations conducted on February 13, 2026.

The ecoprint production process implemented in the program consisted of five structured stages: scouring (cleaning the fabric fibers using TRO), mordanting (preparing the fabric using a mixture of alum, vinegar, ferrous sulfate, and baking soda), creating a color blanket using mangrove wood powder, arranging the leaves, and fixation using alum, ferrous sulfate, or slaked lime. The use of different combinations of fixatives produced variations in color: alum generated brighter colors, ferrous sulfate produced darker/greenish tones, and slaked lime generated neutral tones. Consequently, each product possessed a unique visual character.

This finding is consistent with Hughes, (2018) who stated that the uniqueness of patterns that cannot be identically replicated constitutes a major competitive advantage of ecoprint products compared with conventional batik or screen-printed textiles. Meanwhile, Handayani et al., (2021) confirmed that ecoprint products based on locally sourced materials possess strong market appeal, particularly among tourists seeking authentic products with meaningful narratives. This potential is highly relevant given the location of Nagari Sungai Landia along the Bukittinggi–Maninjau tourism route.

3. MSME Product Packaging Training

One of the critical findings from the initial survey was that the packaging of MSME products in Nagari Sungai Landia remained highly basic, with most

products packaged only in plain plastic bags without labels, product information, or consistent branding. This condition directly constrained the competitiveness of the products in broader markets (Kotler & Keller, 2016).

The packaging training program significantly improved product packaging standards. For culinary products, vacuum-sealing techniques were introduced to extend product shelf life while simultaneously creating a clean and professional appearance. Participants were also trained to prepare labels containing comprehensive information, including the product name, ingredients, net weight, production and expiration dates, and producer contact information, in accordance with national food labeling requirements (BPOM, 2019).

For ecoprint fashion products, premium box packaging was developed with three distinguishing elements: a thank-you card, bilingual care instructions (Indonesian–English), and a product philosophy card describing the origin of the raw materials and their connection to Minangkabau culture. This storytelling-based packaging approach is consistent with the brand-building strategy proposed by Aaker, (2014) which suggests that products with strong cultural narratives can establish emotional connections with consumers and encourage higher levels of brand loyalty.

4. Bilingual Digital Marketing Training

The digital marketing training program represented the culmination of the entire series of activities and was designed to ensure that the products developed could be marketed broadly and sustainably. Participants were trained to create engaging promotional video content for culinary and fashion products, write persuasive product captions in both Indonesian and English, and effectively utilize Instagram, TikTok, Facebook, and Shopee platforms.

As the culmination of the overall program, the *Landia_Fresh* online store was successfully launched on the Shopee platform at the end of the program period (<https://id.shp.ee/fb5WZKtb>). This launch represented a strategic achievement demonstrating that the digital marketing training was not merely theoretical but resulted in a tangible output that directly enhanced the marketing capacity of MSMEs in the nagari.

This achievement is consistent with the findings of Purnomo et al., (2021) who reported that MSMEs successfully onboarded onto e-commerce platforms experienced an average 45% increase in turnover during the first three months. The bilingual approach adopted in the program was also highly relevant to Nagari Sungai Landia's position as a tourism village with the potential to reach international tourists through social media channels (Kementerian Pariwisata & Ekraf, 2022).

5. Program Impact and Sustainability

The post-disaster recovery-based community service program in Nagari Sungai Landia generated positive impacts across three primary dimensions. For the community, the program contributed to accelerating post-disaster recovery by increasing disaster preparedness awareness, strengthening social solidarity, and optimizing local resources. Active community involvement throughout each stage of the activities also fostered a stronger sense of ownership of the program,

thereby significantly increasing community participation. From an institutional perspective, synergy among student organizations across departments within the Faculty of Tourism and Hospitality, Universitas Negeri Padang, enabled multidisciplinary integration, making the program more comprehensive and responsive to community needs. Meanwhile, for students, the program served as a contextual learning environment in which they could apply academic knowledge while developing leadership, teamwork, communication, and field-based problem-solving competencies.

Program sustainability was established through several complementary strategic approaches. Knowledge transfer to local community groups and nagari authorities through mentoring and training served as the primary foundation for enabling communities to independently manage social recovery, strengthen disaster preparedness, and sustainably utilize local potential. At the same time, the program laid the foundation for a long-term partnership between the university and the community of Nagari Sungai Landia, which could be further developed through community service activities, research, and other empowerment programs. In addition, the synergy model among student associations established through this program is expected to serve as an institutional collaboration model for future social initiatives that are more structured and capable of generating broader impacts. Thus, the program not only provided short-term benefits in the context of post-disaster recovery but also made a tangible contribution to strengthening community capacity and enhancing the role of students as agents of social change.

CONCLUSION

The IKK FPP UNP Mahasiswa Berdampak Program in Nagari Sungai Landia successfully implemented a comprehensive post-disaster community empowerment approach through four mutually integrated work programs. The program demonstrated that synergy between academia and the community through creative product innovation based on local potential constitutes an effective strategy for promoting post-disaster economic recovery. Six value-added processed banana products, four export-standard ecoprint fashion products, a professional packaging system, and a digital marketing platform were successfully developed as tangible *legacy* outcomes for the community of Nagari Sungai Landia.

The implications of this program underscore the importance of sustained post-program assistance through long-term partnerships between higher education institutions and beneficiary communities. Local governments are also recommended to support the development of nagari-based MSMEs through Village Funds, product certification facilitation, and the development of digital infrastructure in remote areas. Similar programs should be replicated in other disaster-affected nagari across West Sumatra as part of a broader and more coordinated empowerment-based recovery strategy.

BIBLIOGRAPHY

Aaker, D. A. (2014). *Aaker on branding: 20 principles that drive success*. Morgan James Publishing.

- Badan Geologi Kementerian Energi dan Sumber Daya Mineral (KESDM). (2025). *Laporan kajian bencana hidrometeorologi Sumatera Barat November 2025: Analisis faktor geologi dan rekomendasinya*. KESDM.
- Badan Pengawas Obat dan Makanan (BPOM). (2019). *Peraturan Badan Pengawas Obat dan Makanan Nomor 22 Tahun 2019 tentang Informasi Nilai Gizi pada Label Pangan Olahan*. BPOM RI.
- Badan Pusat Statistik Kabupaten Agam (BPS Agam). (2023). *Statistik pariwisata Kabupaten Agam 2023*. BPS Kabupaten Agam.
- Diskominfotik Sumatera Barat. (2025). *Laporan resmi dampak bencana hidrometeorologi Sumatera Barat 2025: Data korban dan kerugian per kabupaten/kota*. Pemerintah Provinsi Sumatera Barat.
- Handayani, R., Santoso, B., & Pratiwi, D. (2021). Pengembangan usaha ecoprint berbasis bahan alam lokal sebagai upaya peningkatan pendapatan pengrajin pedesaan. *Jurnal Pengabdian Kepada Masyarakat*, 11(3), 145–158. <https://doi.org/10.22146/jpkm.58921>.
- Hidayat, A. (2019). Analisis pemulihan UMKM pascabencana gempa Palu 2018: Peran pendampingan teknis dan akses pasar digital. *Jurnal Ekonomi dan Pembangunan Indonesia*, 19(2), 210–228.
- Hughes, B. (2018). *Botanical prints with ecoprint: Natural dye techniques using leaves, flowers & other plants*. Storey Publishing.
- Kemmis, S., & McTaggart, R. (2005). Participatory action research: Communicative action and the public sphere. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 559–603). SAGE Publications.
- Kementerian Koperasi dan Usaha Kecil dan Menengah RI. (2022). *Laporan kinerja Kementerian Koperasi dan UKM tahun 2022: Digitalisasi UMKM menuju pasar global*. Kemenkop UKM.
- Kementerian Pariwisata dan Ekonomi Kreatif RI. (2022). *Panduan pengembangan desa wisata digital: Strategi pemasaran bilingual untuk wisatawan mancanegara*. Kemenparekraf.
- Kementerian Perindustrian RI. (2021). *Peta jalan industri makanan olahan berbasis bahan baku lokal 2021–2025*. Kemenperin.
- Kemenristek/BRIN. (2020). *Kajian potensi nilai tambah komoditas pisang kepok dalam rantai industri pangan nasional*. Badan Riset dan Inovasi Nasional.
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.
- Laporan Tim Pengabdian IKK FPP UNP. (2026). *Laporan akhir pengabdian masyarakat Mahasiswa Berdampak IKK FPP UNP: Sinergi HMD dalam pemberdayaan masyarakat Nagari Sungai Landia melalui inovasi produk kreatif boga-busana dan digital marketing bilingual*. Universitas Negeri Padang.

- Nasution, F. H., Lubis, Z., & Siregar, M. (2021). Diversifikasi produk berbasis pisang kepok sebagai strategi peningkatan pendapatan kelompok tani di Sumatera Utara. *Agrisocionomics: Jurnal Sosial Ekonomi Pertanian*, 5(1), 78–92.
- Purnomo, A., Widodo, T., & Kusuma, H. (2021). Dampak pemanfaatan e-commerce terhadap pemulihan ekonomi UMKM pascabencana alam di Indonesia. *Jurnal Manajemen dan Kewirausahaan*, 23(1), 55–68. <https://doi.org/10.9744/jmk.23.1.55>.
- Satuhu, S., & Supriadi, A. (2016). *Pisang: Budi daya, pengolahan, dan prospek pasar*. Penebar Swadaya.
- Setiawan, I., & Fatimah, S. (2022). Peluang ekspor produk ecoprint berbahan lokal Indonesia ke pasar Eropa dan Jepang: Analisis permintaan dan strategi penetrasi. *Jurnal Perdagangan Indonesia*, 8(2), 112–126.
- Sulistyawati, E., & Rahmawati, D. (2020). Pemberdayaan ekonomi masyarakat pascabencana Lombok melalui program keterampilan berbasis potensi lokal. *Jurnal Pengembangan Masyarakat*, 6(1), 33–48.
- Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). *At risk: Natural hazards, people's vulnerability and disasters* (2nd ed.). Routledge.