



A MODEL OF CROSS-BORDER UNIVERSITY COLLABORATION IN THE DISTRIBUTION OF HUMANITARIAN AID TO FLOOD VICTIMS IN KETAMBE SUBDISTRICT (SOUTHEAST ACEH)

**Muhammad Husaini Assauwab^{1*}, Kartono², Anuar Ramut³, Sukriadi⁴, Ilham Alsi⁵,
Irfan Apandi⁶, Mohd Marzuki⁷, Mohd Harith⁸**

^{1*,2,3,4,5,6}Universitas Gunung Leuser, Email : assauwab@gmail.com

⁷Foundation Insan Cakna

⁸Universiti Poly-Tech Malaysia

*email koresponden: assauwab@gmail.com

DOI: <https://doi.org/10.62567/jpi.v2i2.2856>

Abstract

The flood disaster that occurred in Ketambe District, Southeast Aceh Regency, at the end of 2025 caused significant impacts on local communities, including damage to housing, disruption of economic activities, and increased demand for basic necessities. These conditions required a rapid, targeted, and well-coordinated humanitarian response. This community service program aimed to provide clothing and food assistance to flood victims while developing a cross-border university collaboration model for disaster response. The program was implemented through a partnership involving Universitas Gunung Leuser (UGL), Universiti Poly-Tech Malaysia (UPTM), and Insan Cakna. The implementation stages included needs assessment, institutional coordination, aid procurement, aid distribution, and program evaluation. UGL was responsible for needs assessment, local coordination, and aid distribution, while UPTM served as the primary donor providing financial assistance, clothing, and food supplies. Insan Cakna acted as the liaison and coordination facilitator between both institutions. The results demonstrated that the collaboration model improved the effectiveness and accuracy of aid distribution while strengthening institutional synergy in disaster response efforts. Beyond providing direct benefits to affected communities, the program generated a cross-border university collaboration model that can be replicated in future humanitarian and disaster management initiatives. The findings highlight that the success of humanitarian programs depends not only on the availability of aid but also on effective coordination, clear division of responsibilities, and sustainable institutional partnerships.

Keywords: *Umanitarian Aid, Flood Disaster, Community Service, Ketambe, International Collaboration.*

Abstrak

Banjir yang terjadi di Kecamatan Ketambe, Kabupaten Aceh Tenggara pada akhir tahun 2025 menimbulkan dampak yang signifikan terhadap kehidupan masyarakat, termasuk kerusakan permukiman, terganggunya aktivitas ekonomi, serta meningkatnya kebutuhan dasar masyarakat terdampak. Kondisi tersebut memerlukan respons kemanusiaan yang cepat, tepat sasaran, dan terkoordinasi. Kegiatan pengabdian kepada masyarakat ini bertujuan untuk menyalurkan bantuan



sandang dan pangan kepada korban banjir sekaligus membangun model kolaborasi perguruan tinggi lintas negara dalam penanganan bencana. Kegiatan dilaksanakan melalui kerja sama antara Universitas Gunung Leuser (UGL), Universiti Poly-Tech Malaysia (UPTM), dan Insan Cakna. Metode pelaksanaan meliputi identifikasi kebutuhan masyarakat, koordinasi kelembagaan, pengadaan bantuan, distribusi bantuan, serta evaluasi kegiatan. UGL berperan dalam identifikasi kebutuhan, koordinasi lapangan, dan pelaksanaan distribusi bantuan, sedangkan UPTM berperan sebagai penyedia bantuan kemanusiaan berupa dana, sandang, dan pangan. Insan Cakna berfungsi sebagai fasilitator komunikasi dan koordinasi antara kedua institusi. Hasil kegiatan menunjukkan bahwa kolaborasi yang dibangun mampu mendukung penyaluran bantuan secara tepat sasaran, meningkatkan efektivitas distribusi, serta memperkuat sinergi antar lembaga dalam merespons bencana. Selain memberikan manfaat langsung kepada masyarakat terdampak, kegiatan ini menghasilkan model kolaborasi perguruan tinggi lintas negara yang berpotensi direplikasi dalam program kemanusiaan dan penanggulangan bencana di wilayah lain. Temuan ini menegaskan bahwa keberhasilan program kemanusiaan tidak hanya ditentukan oleh ketersediaan bantuan, tetapi juga oleh efektivitas koordinasi, pembagian peran yang jelas, dan kemitraan kelembagaan yang berkelanjutan.

Kata Kunci: Kemanusiaan, Banjir, Ketambe, Sosial, Lintas Negara.

1. INTRODUCTION

Flood disasters represent a significant and recurrent challenge in various regions of Indonesia, notably within the Regency of Aceh Tenggara, particularly in the Ketambe District. The occurrence of floods is predominantly the result of complex interactions among natural factors and anthropogenic activities, including elevated levels of precipitation, specific topographic characteristics of watersheds, alterations in land utilization, and a diminished environmental capacity to effectively absorb water runoff. Modifications in land use, especially the reduction of catchment areas and the expansion of developed land, have been empirically demonstrated to exacerbate surface runoff discharge and heighten flood risk (Setyowati et al., 2021; Supratman et al., 2024). Furthermore, inadequacies in disaster mitigation frameworks and insufficient institutional preparedness serve as additional contributors that intensify the adverse effects of flooding on affected populations (Rahmi et al., 2026). The flash floods that transpired at the conclusion of 2025 in Southeast Aceh inflicted extensive repercussions, manifesting not solely in the destruction of residences and infrastructure but also resulting in fatalities, displacement, and disruption of the socioeconomic activities of the populace. This observation indicates that flood management should not be perceived merely as a seasonal phenomenon; rather, it should be regarded as a fundamental structural issue necessitating a systematic, collaborative, and sustained response.

Data obtained from the Regional Disaster Management Agency (BPBD) of Southeast Aceh Regency indicates that the floods occurring at the end of 2025 impacted 124 villages across 16 districts, with the total number of individuals affected reaching 14,613, which corresponds to 4,491 households (KK). Furthermore, it is documented that 1,726 individuals, equivalent to 468 households (KK), were displaced across 23 designated refugee centers. The extent of home damage amounted to 2,194 units, comprising 403 residences categorized as severely damaged, 393 as moderately damaged, and 1,398 as lightly damaged. Concurrently, the comprehensive temporary economic loss attributed to this disaster is estimated at Rp549 billion, encompassing the housing, infrastructure, productive economy, and social sectors. The considerable scale of this damage underscores that the flooding in Southeast Aceh has transcended the classification of a mere seasonal disaster, evolving into a socio-ecological crisis that necessitates rigorous cross-sectoral and institutional management. The lack of preparedness within disaster response systems invariably leads to an escalation in casualties, while uncoordinated assistance tends to exacerbate the situation rather than resolve it (BPBD Aceh Tenggara, 2025; AJNN, 2025).

Particularly within the Ketambe District, the phenomenon of flash flooding is notably acute due to the geographical positioning of the area in proximity to the Alas River, rendering it highly susceptible to water runoff and subsequent flash floods. Data concerning the evolution of the disaster indicates that



880 families (KK), equating to 3,173 individuals, have been adversely affected in the Ketambe District, with structural damage to residences amounting to 408 units and substantial detriment to agricultural land. The villages impacted encompass Simpura Jaya, Bukit Baru, Jambur Lak-Lak, Penungkunen, Lawe Aunan, Jati Sara, Aunan Sepakat, Lawe Penanggalan, Bener Berpapah, Desa Ketambe, Kati Maju, Leuser, and Rumah Bundar. Furthermore, the BPBD has documented the mortality rate attributable to flash floods within the region, underscoring that the disaster has engendered not merely material losses, but also a consequential humanitarian crisis. This scenario substantiates the necessity for Ketambe District to adopt a more organized strategy, particularly in addressing the fundamental needs of communities in the aftermath of planning through the implementation of targeted and sustainable aid distribution frameworks (BPBD Aceh Tenggara, 2025).

These circumstances necessitate an expedited and methodical response in fulfilling the essential needs of the affected populations, with particular emphasis on shelter support and food provisions. In scenarios subsequent to planning, the satisfaction of basic necessities assumes paramount importance, as it is intrinsically linked to societal survival, especially for vulnerable demographics including children, the elderly, and women. Disasters precipitate not only physical devastation but also exacerbate public health dilemmas, manifesting as restricted access to potable water, inadequate sanitation, reproductive health issues, psychological distress, and an elevated risk of communicable diseases, thereby necessitating that basic needs are addressed from the onset of the emergency response phase (Widayatun & Fatoni, 2013).

Nonetheless, the distribution of humanitarian assistance frequently encounters a myriad of challenges, including imprecision in targeting, inadequate inter-agency coordination, inequitable distribution, and a deficiency in the evaluation of the effectiveness of the aid rendered. Research indicates that the efficacy of post-planning responses is predominantly contingent upon the capacity for inter-agency coordination, clarity in command structures, accuracy of beneficiary data, and effective monitoring mechanisms for aid distribution (Haddad & Sakr, 2022). Failures in the establishment of institutional coordination systems frequently result in aid being delivered in a sporadic, overlapping, and unsustainable manner. Numerous relief initiatives culminate in immediate distribution without the establishment of a long-term management framework. This represents a fundamental error in disaster management: prioritizing short-term aid delivery over the establishment of institutional mechanisms capable of ensuring the effectiveness, accuracy of targeting, and sustainability of humanitarian programs.

The institution of higher education occupies a pivotal role in community service, functioning not merely as an educational establishment, but also as a catalyst for social and humanitarian transformation. The tridharma function of the institution situates community service as a tangible mechanism for addressing social challenges, particularly in the context of disaster scenarios. Within the framework of disaster management, academic institutions are poised to make significant contributions by fortifying partnership networks, mobilizing resources, conducting field assessments, providing education on mitigation strategies, and devising more efficacious and scalable systems for aid distribution. The engagement of colleges in disaster response has been evidenced to enhance community capacity and augment the efficacy of social interventions, underpinned by academic resources, institutional legitimacy, and capabilities for cross-sector coordination (Sasaki et al., 2021). Furthermore, intercollegiate collaboration at an international scale is increasingly pertinent, as it facilitates the exchange of knowledge, the synergistic utilization of resources, and the formulation of more adaptive collaborative frameworks in confronting intricate humanitarian challenges (Bowen et al., 2021). Collaborative efforts across national boundaries should transcend mere ceremonial memoranda of understanding or symbolic visits; their true value is realized only when they culminate in expedited, targeted, and sustainable response systems for communities affected by disasters.

Universitas Gunung Leuser and Universiti Poly-Tech Malaysia have forged a collaborative commitment to implement humanitarian-oriented community service through the provision of aid for flood-affected individuals in Ketambe District. Higher education institutions can no longer be relegated solely to the role of formal education centers; they must also emerge as strategic stakeholders in



bolstering social resilience and disaster response via collaboration-based community service (Cole et al., 2021; Fifolt et al., 2021). Within this partnership, UGL is tasked with the identification of impacted areas, the establishment of operational sites, the coordination of field activities, and the facilitation of aid distribution to the affected populace. Concurrently, UPTM serves as the primary supplier of essential goods and food aid, while also assisting in the direct dissemination of assistance. This delineation of roles exemplifies the principles of interprofessional collaboration and institutional partnership, which are critical determinants of the effectiveness of disaster response, particularly in exigent situations necessitating promptness, precision in targeting, and efficiency in aid distribution (Fifolt et al., 2021; Haddad & Sakr, 2022). Moreover, transnational cooperation among academic institutions further enhances institutional capacity through the exchange of resources and experiences, as well as the development of more adaptive and sustainable frameworks for humanitarian governance (Bowen et al., 2021). This assignment of roles illustrates the potential for establishing a model of cross-national academic collaboration that transcends incidental interaction, evolving into a structured and replicable system applicable to other aspects of disaster management.

In light of these circumstances, a dedicated effort is imperative, one that emphasizes not only the implementation of aid distribution but also the conceptualization of a model for cross-national academic collaboration in disaster management. This proposed model aims to augment the efficacy of aid distribution, enhance the accuracy in targeting beneficiaries, and establish a framework for enduring institutional cooperation among universities in addressing humanitarian emergencies. Consequently, this initiative has been articulated in the form of a community service project entitled "Cross-Country University Collaboration Model in Disaster Management through the Distribution of Humanitarian Aid for Flood Victims in Ketambe District (Indonesia)."

2. RESEARCH METHOD

This community service activity was carried out in Ketambe Subdistrict, Southeast Aceh Regency, one of the areas hardest hit by the floods. The implementation method was designed not only to distribute humanitarian aid in the form of clothing and food, but also to establish a model for cross-national university collaboration that is systematic, measurable, and replicable in future disaster response efforts. The primary focus of this activity is not merely the distribution of aid, but rather the establishment of institutional cooperation mechanisms capable of ensuring that aid is delivered in a targeted, effective, and sustainable manner.

The implementation of the activity uses a multi-stakeholder collaborative approach involving Gunung Leuser University, Universiti Poly-Tech Malaysia, and Insan Cakna as institutional liaison partners. This collaboration framework is structured based on a clear division of roles to ensure the activity is carried out in a coordinated and efficient manner.

Insan Cakna serves as a liaison and facilitator for cooperation between UPTM Malaysia and UGL Indonesia. This role includes facilitating communication between institutions, coordinating programs, aligning aid needs, and ensuring that the synergy in implementing activities runs effectively. The presence of a liaison is crucial in cross-border collaboration because many aid programs fail not due to a lack of resources, but due to weak institutional coordination and communication.

Meanwhile, Universitas Gunung Leuser is responsible for on-the-ground technical implementation, including identifying affected areas, coordinating with local communities and the regional government, preparing activity sites, and mobilizing local resources to support the smooth distribution of aid. UGL is also responsible for ensuring that aid reaches the intended recipients based on the actual conditions of the flood-affected communities.

On the other hand, Universiti Poly-Tech Malaysia serves as the primary donor in providing humanitarian aid in the form of funds, clothing, and food for flood victims in Ketambe Subdistrict. In addition to providing aid, UPTM is also involved in the aid distribution process alongside local partners as part of the implementation of cross-border humanitarian collaboration.

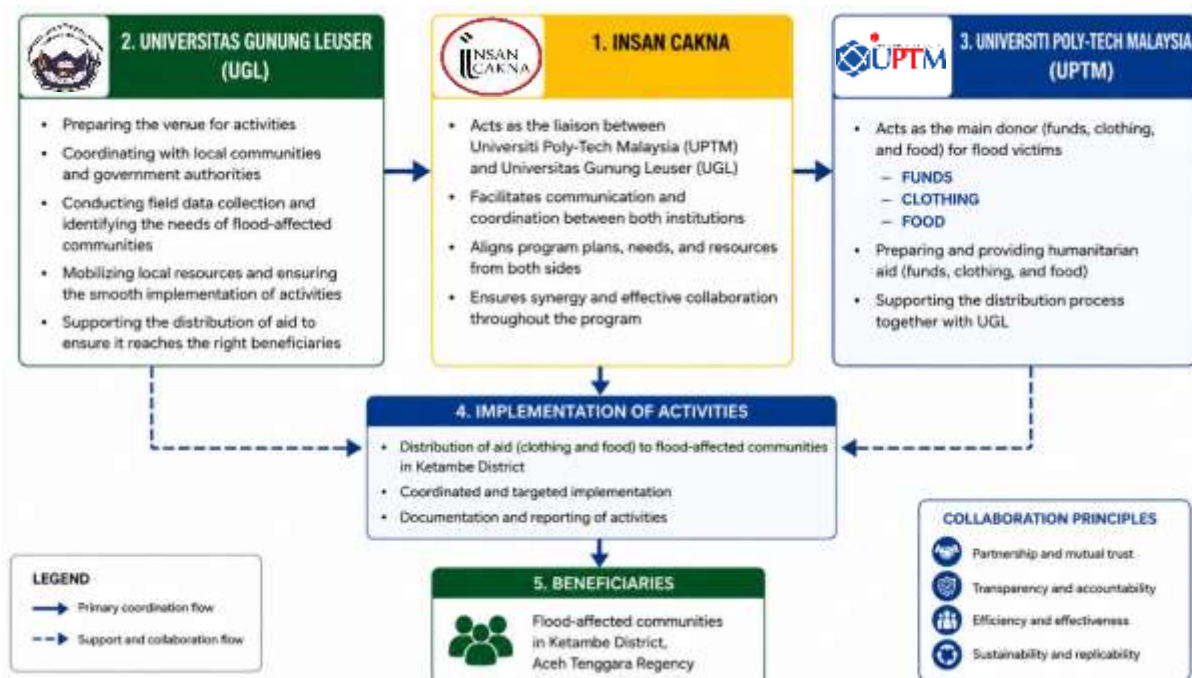


Figure 1. Model for Collaboration in the Distribution of Humanitarian Aid

This community service initiative was carried out through several key, integrated stages. The initial stage began with identifying the needs of flood-affected communities to assess on-site conditions, the extent of damage, and the types of assistance most needed by the community. This was followed by institutional coordination among partners—including Gunung Leuser University, Universiti Poly-Tech Malaysia, and Insan Cakna—to develop a targeted and effective implementation mechanism. Following this, humanitarian aid in the form of clothing and food was procured, tailored to the results of the on-site needs assessment. The next stage involved the coordinated and targeted distribution of aid to flood-affected communities in Ketambe Subdistrict. In the final stage, an evaluation of the activity's implementation was conducted to assess the program's effectiveness and to develop a model for cross-border university collaboration in disaster response that can be sustainably applied to future humanitarian activities. The activity implementation model can be seen in the following diagram.

3. RESULT AND DISCUSSION

Implementation of Cross-Border University Collaboration

This community service initiative was carried out in response to the floods that struck Ketambe Subdistrict, Southeast Aceh Regency. The implementation of the initiative involved three institutions with distinct yet complementary roles: Gunung Leuser University (UGL), Universiti Poly-Tech Malaysia (UPTM), and Insan Cakna. This collaboration demonstrates the implementation of cross-border cooperation in the humanitarian sector, focused on meeting the basic needs of disaster-affected communities. Such multi-stakeholder partnerships are one of the recommended approaches in disaster management because they can integrate resources, knowledge, and institutional capacities from various organizations to enhance the effectiveness of humanitarian responses (Haddad & Sakr, 2022).

In the initial phase, UGL identified affected areas and coordinated with local governments, village officials, and community leaders to gather data on the needs of flood victims. These efforts yielded information regarding the conditions of the affected communities, the number of aid recipients, and the types of assistance most urgently needed. In addition, UGL also prepared activity sites, organized aid distribution mechanisms, and mobilized local resources to support the smooth implementation of activities. The involvement of local institutions in the needs assessment process and



field coordination is a critical factor in ensuring the accuracy of aid targeting and strengthening community resilience post-disaster (Shirleyana et al., 2023).

Furthermore, Insan Cakna serves as a liaison between UPTM and UGL in fostering institutional communication and coordination. This role is crucial for ensuring alignment between the needs of local communities and the assistance provided by international partners. Through intensive coordination, the entire process of planning and implementing activities can proceed effectively and purposefully. Research indicates that the success of humanitarian programs is significantly influenced by the quality of inter-organizational communication, clarity in task allocation, and coordination mechanisms capable of reducing activity overlap and accelerating decision-making (Haddad & Sakr, 2022).



Figure 2. Coordination and Discussion Activities Among the Implementation Team, Partners, and Stakeholders in Preparation for the Distribution of Humanitarian Aid

Meanwhile, UPTM serves as the primary provider of humanitarian aid in the form of funds, clothing, and food. The aid distributed is tailored to the identified needs of the community, ensuring it is highly beneficial to the recipients. UPTM's involvement extends beyond the provision of aid to include the implementation of community service initiatives based on international collaboration. The involvement of universities in humanitarian activities has proven capable of strengthening disaster response capacity through resource support, partnership networks, and the development of sustainable collaborative practices (Sasaki et al., 2021; Bowen et al., 2021). Thus, the collaboration between UGL, UPTM, and Insan Cakna not only resulted in effective aid distribution but also demonstrated a model of cross-border partnership with the potential to be replicated in disaster management in other regions.

Humanitarian Aid Distribution

Aid distribution was carried out directly to flood-affected communities in Ketambe Subdistrict, involving all partners participating in the program. The aid distributed consisted of basic necessities and essential supplies needed by the community during the post-disaster recovery period. The distribution process was carried out based on previously verified recipient data so that aid could be distributed more effectively to the intended recipients. A needs-based approach is a key principle in humanitarian response because it enhances the effectiveness of aid and ensures that available resources reach the communities most in need (Sphere Association, 2024).



Figure 3. Distribution of Clothing and Food Aid to Flood-Affected Communities in Ketambe Subdistrict

The distribution of aid proceeded smoothly thanks to effective coordination among universities, partner organizations, local governments, and the local community. The involvement of various stakeholders ensured a more orderly distribution process, reduced the potential for duplication of aid, and enhanced the effectiveness of aid delivery to communities in need. According to Haddad and Sakr (2022), the success of humanitarian programs is greatly influenced by an organization's ability to establish effective inter-institutional coordination, particularly regarding communication, role allocation, and decision-making during emergency response efforts. Therefore, the synergy established between UGL, UPTM, Insan Cakna, local governments, and local communities is a key factor supporting the success of aid distribution in this initiative.

In addition to providing direct benefits in the form of meeting the community's basic needs, this initiative also strengthens social ties between the community and the participating higher education institutions. The presence of universities in disaster situations makes a tangible contribution to accelerating the community's recovery process while simultaneously reinforcing public trust in the social role of higher education institutions. Sasaki et al. (2021) explain that the involvement of higher education institutions in post-disaster rehabilitation and reconstruction activities serves not only as a provider of knowledge and resources but also as a bridge between the community, the government, and various other stakeholders. Thus, these activities not only yield short-term benefits in the form of humanitarian aid distribution but also strengthen the community's social capital and collaborative capacity in facing future disasters.

Model of Cross-Border University Collaboration in Disaster Management

One of the key outcomes of this initiative is the establishment of a model for cross-border university collaboration in the delivery of humanitarian aid. This model was developed through a clear division of roles among the participating institutions. Gunung Leuser University (UGL) serves as the field implementer and local coordinator, responsible for identifying needs, coordinating with local governments and communities, and managing the technical aspects of the activities. Insan Cakna acts as a facilitator for communication and coordination among institutions, while Universiti Poly-Tech



Malaysia (UPTM) serves as the provider of humanitarian aid resources in the form of funds, clothing, and food. This structured division of roles aligns with the principles of collaborative governance in disaster response, which emphasizes the importance of clarity regarding the functions and responsibilities of each actor to enhance the effectiveness of humanitarian program implementation (Haddad & Sakr, 2022).

This collaborative model demonstrates that the success of humanitarian programs is determined not only by the amount of aid provided, but also by the effectiveness of coordination among the agencies involved. A clear division of tasks can reduce communication barriers, accelerate decision-making processes, and improve the accuracy of aid targeting. Haddad and Sakr (2022) explain that inter-organizational relationships built through effective coordination strengthen disaster response capacity, reduce program duplication, and improve the efficiency of resource utilization. Therefore, the success of this initiative is reflected not only in the delivery of aid to affected communities but also in the establishment of collaborative mechanisms capable of supporting the effective implementation of the program.

The results of the study also indicate that cross-border collaboration can be an effective alternative for strengthening disaster response capacity at the local level. Through the synergy of resources, experience, and institutional networks possessed by each partner, the disaster management process can be carried out in a more organized and sustainable manner. Bowen et al. (2021) state that international collaboration among educational institutions can expand access to the resources and knowledge needed to address complex social and humanitarian issues. Furthermore, Sasaki et al. (2021) emphasize that universities play a strategic role as a bridge between communities, governments, and various stakeholders in the post-disaster rehabilitation and reconstruction process. Thus, the collaboration model developed in this initiative has the potential to be replicated in other humanitarian efforts, whether in the context of floods or other types of disasters requiring multi-stakeholder support and cross-border cooperation.



Figure 4. Implementation Team and Community Service Collaboration Partners in the Humanitarian Aid Program for Flood Victims in Ketambe Subdistrict



The Impact of Activities on Strengthening Community Service

This initiative demonstrates that community service is not only focused on providing short-term humanitarian aid but also on building sustainable systems of cooperation among institutions. Experience in implementing the program shows that the success of the initiative is determined not only by the amount of aid distributed but also by the partners' ability to establish effective coordination, communication, and division of roles. This finding aligns with the research by Haddad and Sakr (2022), which states that inter-organizational collaboration is a key factor in enhancing the effectiveness of disaster response and strengthening institutional capacity to address emergency situations. Therefore, collaboration between universities and transnational humanitarian organizations in this initiative not only expands the scope of the program's benefits but also strengthens institutional capacity to address social and disaster-related issues in a more structured manner.

Through these activities, universities not only fulfill their community service function as part of the implementation of the three pillars of higher education, but also serve as facilitators of collaboration, drivers of humanitarian solidarity, and strategic partners in disaster response efforts. Higher education institutions' involvement in humanitarian activities enables the integration of academic knowledge, institutional resources, and community needs, resulting in more effective and sustainable interventions (Sasaki et al., 2021). Furthermore, the cross-border collaboration established through the partnership between UGL, UPTM, and Insan Cakna demonstrates that international networks can serve as a vital tool in strengthening local capacity to address disasters. Thus, the collaboration model developed in this activity can serve as a best practice example for the development of community service programs based on international partnerships, particularly in the fields of humanitarian aid and disaster management, which require synergy among various stakeholders (Bowen et al., 2021).

4. CONCLUSION

This community service program demonstrated that a structured cross-border collaboration model involving Universitas Gunung Leuser (UGL), Universiti Poly-Tech Malaysia (UPTM), and Insan Cakna can effectively support humanitarian assistance for flood-affected communities in Ketambe District, Southeast Aceh Regency. Through a clear division of responsibilities, UGL facilitated local coordination and field implementation, UPTM provided financial, clothing, and food assistance, while Insan Cakna served as the liaison and coordination facilitator between both institutions. The collaboration enabled targeted and efficient aid distribution, strengthened institutional partnerships, and enhanced the overall effectiveness of disaster response efforts. The findings highlight that successful humanitarian interventions depend not only on the availability of resources but also on effective coordination, communication, and collaborative governance among stakeholders. Furthermore, the program reinforced the strategic role of higher education institutions in community engagement, humanitarian action, and disaster management. Therefore, the collaboration model developed in this initiative represents a practical and replicable framework for future humanitarian and disaster response programs, particularly those requiring international partnerships and multi-stakeholder cooperation.

5. REFERENCES

- AJNN. (2025, December 17). *BPBD: Total kerugian banjir bandang di Aceh Tenggara capai Rp 549 miliar*. AJNN. <https://www.ajnn.net/news/bpbd-total-kerugian-banjir-bandang-di-aceh-tenggara-capai-rp-549-miliar/index.html>
- Badan Penanggulangan Bencana Daerah Kabupaten Aceh Tenggara. (2025). *Data perkembangan bencana banjir Kabupaten Aceh Tenggara tahun 2025*. BPBD Kabupaten Aceh Tenggara.
- Bowen, K., Barry, M., Jowell, A., Maddah, D., & Alami, N. H. (2021). Virtual exchange in global health: An innovative educational approach to foster socially responsible overseas collaboration. *International Journal of Educational Technology in Higher Education*, 18(1), 32. <https://doi.org/10.1186/s41239-021-00266-x>



- Cole, S. D., Nelson, H. C. M., Jenkins, B. D., Poon, C. Y., Rankin, S. C., & Becker, D. E. (2021). PennDemic simulation framework: An innovative approach to increase student interest and confidence in disasters preparedness/response and interdisciplinary teamwork. *Frontiers in Public Health*, 9, 682112. <https://doi.org/10.3389/fpubh.2021.682112>
- Fifolt, M., Brown, M., Kidd, E., Nabavi, M., Lee, H., & McCormick, L. C. (2023). Using interprofessional simulation to enhance student knowledge and promote collaborative practice in disaster management. *Pedagogy in Health Promotion*, 9(1), 64–71. <https://doi.org/10.1177/2373379920987576>
- Haddad, T., & Sakr, T. (2022). Interorganizational relation in disaster response in developing context: Assessing response to Beirut explosion. *Policy Sciences*, 55(4), 739–764. <https://doi.org/10.1007/s11115-022-00650-9>
- Rahmi, R., Achmad, A., Yulianur, A., & Ramli, I. (2026). Assessing and mapping the flood vulnerability of Krueng Baro watershed, Aceh, Indonesia using GIS-based hierarchical criteria analysis. *Engineering, Technology & Applied Science Research*, 16(2), 33813–33819. <https://doi.org/10.48084/etasr.16368>
- Sasaki, D., Sofyan, H., Sasmita, N. R., Affan, M., & Nizamuddin. (2021). Assessing the intermediate function of local academic institutions during the rehabilitation and reconstruction of Aceh, Indonesia. *Journal of Disaster Research*, 16(8), 1265–1273. <https://doi.org/10.20965/jdr.2021.p1265>
- Setyowati, D. L., Wilaksono, S. A., Aji, A., & Amin, M. (2021). Assessment of watershed carrying capacity and land use change on flood vulnerability areas in Semarang City. *Forum Geografi*, 35(2). <https://doi.org/10.23917/forgeo.v35i2.15542>
- Shirleyana, Hawken, S., Sunindijo, R. Y., & Sanderson, D. (2023). The critical role of community networks in building everyday resilience: Insights from the urban villages of Surabaya. *International Journal of Disaster Risk Reduction*, 98, 104090. <https://doi.org/10.1016/j.ijdrr.2023.104090>
- Sphere Association. (2024). *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response* (2024 ed.). <https://doi.org/10.3362/9781908176404>
- Supratman, M., Kusuma, M. S. B., & Cahyono, M. (2024). Flood hazard assessment due to changes in land use and cover. *Civil Engineering Journal*, 10(12). <https://doi.org/10.28991/CEJ-2024-010-12-04>
- Widayatun, & Fatoni, Z. (2013). Permasalahan kesehatan dalam kondisi bencana: Peran petugas kesehatan dan partisipasi masyarakat. *Jurnal Kependudukan Indonesia*, 8(1), 37–52. <https://doi.org/10.14203/jki.v8i1.21>