



Optimization of Disaster Logistics Management by the Karimun Social Affairs Office: Collaboration for an Effective Humanitarian Response

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ABSTRAK

Tanjung Balai Karimun dikenal sebagai wilayah yang rawan bencana di Provinsi Kepulauan Riau, rentan terhadap bencana alam maupun sosial. Bencana-bencana ini tidak hanya menyebabkan kerusakan langsung pada infrastruktur dan perekonomian, tetapi juga berdampak signifikan terhadap kesejahteraan sosial masyarakat setempat. Dalam menghadapi tantangan ini, Dinas Sosial Kabupaten Karimun memainkan peran penting, khususnya dalam mengelola dan mendistribusikan bantuan logistik bagi para korban bencana. Kegiatan ini bertujuan untuk mendeskripsikan peran dan aktivitas Dinas Sosial dalam mengelola dukungan logistik bagi korban bencana alam dan sosial di Kabupaten Karimun. Fokus utama terletak pada bagaimana dinas tersebut berfungsi sebagai koordinator untuk memastikan bahwa bantuan disalurkan secara tepat dan sesuai dengan kebutuhan spesifik para penyintas. Kegiatan pengabdian kepada masyarakat (PKM) dilaksanakan dengan terjun langsung ke lapangan. Dinas Sosial memegang peranan sentral dalam mengoordinasikan distribusi bantuan logistik, termasuk pasokan makanan, obat-obatan, dan dukungan psikososial bagi para korban. Namun, terdapat beberapa kendala yang menghambat proses penyaluran bantuan, terutama keterlambatan dalam kedatangan bantuan dari Kementerian Sosial, yang berdampak negatif terhadap ketepatan waktu dalam merespons kebutuhan mendesak masyarakat.

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ABSTRACT

Tanjung Balai Karimun is recognized as a high-risk disaster zone within the Riau Islands Province, with notable vulnerability to both natural and social hazards. These hazards not only result in immediate damage to physical infrastructure and economic systems but also



Natural Disasters, Social Disasters

exert a profound impact on the social welfare of the local population. In addressing these multidimensional challenges, the Social Affairs Office of Karimun Regency particularly in the management and distribution of logistical aid to disaster-affected communities. This activity seeks to examine and describe the functions and initiatives of the Social Affairs Office in coordinating logistical support for victims of natural and social disasters in the region. The primary emphasis is placed on understanding how the office operates as a central coordinator to ensure that aid is delivered efficiently, accurately, and in alignment with the specific needs of survivors. The community service program was conducted through direct field engagement, allowing for an in-depth assessment of the aid distribution mechanisms. Findings indicate that the Social Affairs Office assumes a central position in coordinating the provision of essential resources, including food supplies, medical assistance, and psychosocial support. Nevertheless, several operational challenges persist—chief among them being delays in aid shipments from the Ministry of Social Affairs, which significantly hinder the timeliness of emergency response efforts and compromise the ability to address the immediate needs of affected populations.

1. Introduction

Karimun Regency, located within Indonesia's Riau Islands Province, occupies a strategic geopolitical position, sharing maritime boundaries with both Malaysia and Singapore. Geographically, the regency encompasses approximately 274 islands, 57 of which are inhabited. According to mid-2024 data from the Department of Population and Civil Registration (Dukcapil) of Karimun, the total population stands at 272,391, consisting of 139,245 males and 133,146 females, with an average population density of 180 persons per square kilometer. Tanjung Balai Karimun serves as the administrative and governmental center of the regency.

Karimun is particularly vulnerable to both natural and social disasters. The impacts of such events extend beyond physical destruction and economic losses, imposing considerable pressure on the social well-being of affected communities. In such contexts, the presence of a responsive and capable government institution becomes essential. The Social Affairs Office of Karimun Regency stands as a key actor in this regard.

The Social Affairs Office is assigned to enhance the quality of social welfare services through a variety of programs, including social protection, rehabilitation, empowerment, and poverty alleviation. In the context of disaster response, particularly the distribution of

logistical aid, the office functions as the primary agency responsible for ensuring effective and equitable delivery of support (Iskaputri et al., 2021). The logistical assistance includes food supplies, medicines, medical equipment, and psychosocial services, all of which are essential for the recovery of disaster victims (Hidayat et al., 2018; Intania & Rusghana, 2024).

The Social Affairs Office operates not in isolation but through active coordination with the Regional Disaster Management Agency (BPBD), as well as subnational administrative structures such as districts, subdistricts, and villages. This collaborative effort aims to produce accurate and real-time data on disaster impacts—such as the number of affected households and estimated losses—which are critical for determining the type and scale of aid required to meet community needs effectively (Sigit & Ginting, 2023; Prayitno & Fairus, 2022).

In addition to formal institutional structures, the office is supported by the Disaster Preparedness Cadets (Tagana), a community-based volunteer unit under its supervision. Tagana contributes significantly to disaster mitigation and response efforts through activities such as risk mapping, public awareness campaigns, and technical field operations. Nonetheless, the Social Affairs Office remains at the forefront of coordinating and providing logistical aid (Bedasari & Wahyuni, 2020; Adhayanto et al., 2023).

Considering the crucial role of the Social Affairs Office in disaster management in the high-risk region of Karimun, examining the mechanisms and effectiveness of its aid distribution is essential. This effort seeks to explore in greater depth how the office manages logistical support for victims of both natural and social disasters in the area. This community engagement approach (PkM) was employed using a systematic, needs-based methodology. Fieldwork included direct observations in disaster-affected areas and in-depth interviews with both victims and Social Affairs personnel. This approach allowed for a more nuanced and grounded understanding of the logistical processes, as well as the perceptions and lived experiences of both implementers and beneficiaries. Such methods are well-suited to social inquiry, particularly when aiming to capture reality through the lens of participants themselves.

2. Methods

The methodology employed in this community engagement initiative (PKM) in Karimun Regency adopted a systematic, field-based needs-oriented approach. The program commenced with direct activity at disaster-affected sites. These initial stages aimed to concretely identify the core challenges faced by the affected populations and to determine their most urgent recovery needs. The information gathered served as the foundation for designing targeted interventions that are contextually appropriate, ensuring that the activities implemented deliver

tangible and sustainable benefits to the community.

This initiative embodies a concrete form of social action spearheaded by the Social Affairs Office as part of its broader mission to improve community welfare in disaster-prone areas. The approach taken is holistic, addressing not only the material needs of victims but also fostering a safe and supportive social environment conducive to psychosocial recovery. The overarching goal is to empower affected communities to recover from disaster impacts while simultaneously strengthening their social resilience for the future.

3. Results and Discussion

The Social Affairs Office of Karimun Regency employs symbolic communication to explore and understand the needs of disaster victims. Through field observation and interviews, information is gathered regarding the type and amount of aid required. This communicative process involves the use of symbols—such as language, gestures, and formal documentation—to convey messages related to the logistics of aid distribution.

The meaning of logistical aid is constructed through interactions between Social Affairs officials and the affected communities. This process is dynamic and reciprocal. Decisions regarding the types of assistance and the methods of distribution emerge from dialogue and mutual understanding, underscoring that the

meaning of aid is not fixed but shaped by social interpretation. Aid is thus not merely viewed as material provision, but as an expression of care, solidarity, and socially meaningful recovery efforts.

The interaction between individuals and institutions in this context also contributes to shaping the victims' identity and self-conception. Through engagement with Social Affairs personnel and emergency response teams, victims begin to comprehend their situation, reframe their needs, and interpret aid as part of their recovery process. This highlights that symbolic interaction is not limited to information exchange, but also involves the construction of social identity and the psychological empowerment of disaster survivors.

Furthermore, symbolic interactionism asserts that meaning is fluid and evolves through continuous interpretation. In practice, the meaning of logistical assistance shifts over time, influenced by the context, recipients' lived experiences, and surrounding social dynamics.

Logistics distribution forms a core component of supply chain management, especially during emergencies. Christopher (2011) defines logistics as the planning, implementation, and control of the efficient flow of goods, services, and information from point of origin to point of consumption to meet specific requirements. Rimiené & Grundey (2007) similarly describes logistics as both an art and science of managing the

flow of materials and information from producers to consumers in a way that optimizes resources.

In the disaster response context, logistics entails a range of activities including procurement, packaging, storage, and direct distribution to affected populations. This process goes beyond the physical movement of goods; it requires strategic planning and coordination to ensure that aid is timely, appropriate, and well-targeted. The effectiveness of logistics distribution is crucial to the success of initial disaster response efforts and reflects an institution's capacity to manage crises.

Victims of natural and social disasters are individuals or groups who suffer both physical and psychological harm as a result of the event. According to Mashuri et al. (2021), disaster victims face not only material losses but also emotional distress and trauma, whether the disaster is natural or human-induced. The World Health Organization defines a disaster as an extraordinary event that disrupts the normal functioning of a community and causes significant suffering, including loss of life and property damage.

This definition emphasizes the importance of a comprehensive approach to victim support. Effective response must address both basic needs and provide psychosocial assistance to help victims recover their lives.

In Karimun Regency, the Social Affairs Office is the primary agency

responsible for data collection, planning, and distribution of logistical aid. In 2024, 33 natural and social disaster events were recorded between January and September, affecting 33 households and 964 individuals. These incidents were addressed through cross-sectoral coordination involving the distribution of food, medicine, emergency supplies, and psychosocial support.

Aid distribution is tailored to the specific context and needs of each victim. Utilizing a data-driven and symbolically communicative approach, the Social Affairs Office ensures that the assistance provided addresses not only material necessities but also holds social significance for recipients. This approach illustrates that effective disaster response requires the integration of logistics, communication strategies, and a deep sociocultural understanding of the victims' lived experiences.

Government through the Social Affairs
Office of Karimun Regency from
January to September 2024

The Department of Social Affairs functions as the primary coordinator in distributing logistical aid for social disaster victims. Aid from the Ministry of Social Affairs (KEMENSOS) is distributed only once a year. This annual support is primarily directed at meeting the logistical needs of victims of natural and social disasters at the regional level.

However, several obstacles hinder the distribution process, one of which is the delayed delivery of logistical supplies from the central government to the Karimun District Social Affairs Office. This delay directly impacts the timeliness of aid delivery to affected communities. In practice, Tagana (Disaster Preparedness Cadets) are actively involved in disaster mitigation and emergency response efforts, focusing on fostering community participation through social and educational activities.

The Regional Disaster Management Agency (BPBD) also contributes to the distribution process, although it operates independently of the Department of Social Affairs. Unlike Tagana, which is under the supervision of the Department, BPBD is a regional government institution with a formal mandate, established through regulation, to coordinate disaster management policies and actions—from prevention and emergency response to the rehabilitation phase.



Figure 1. Recapitulation of Disaster Events and Distribution of Logistical Aid Provided by the Ministry of Social Affairs and the Karimun Regional

Tagana, in contrast, is a community-based volunteer organization whose primary role is to support BPBD's efforts through initiatives such as disaster education, evacuation drills, and the direct provision of aid to victims. The synergy between BPBD, the Department of Social Affairs, and Tagana is critical in ensuring that aid distribution is efficient and appropriately targeted.

This community service initiative represents a tangible effort to support disaster-affected communities, whether the disasters are natural or anthropogenic. As noted by BPBD officer, Mr. At, said that such efforts aim to accelerate post-disaster recovery. The logistical aid distributed is sourced not only from KEMENSOS but also from the Provincial Government through the Regional Government, in the form of essential goods prepared for immediate distribution to victims. Documentation of this aid forms an integral part of the reporting process for this service activity.



Figure. 2 BPBD collaborates with the Department of Social Affairs (DINSOS) in distributing logistical aid to victims of natural disasters such as tornadoes and fires.

The community service activities carried out by the Social Affairs Office of

Karimun Regency focus on strengthening institutional capacity in managing logistical aid for disaster victims. These activities include technical assistance in the aid distribution process, the development of more efficient coordination flows, and training on emergency response tailored to the specific needs of affected communities.

In addition, the office collaborates with TAGANA (Disaster Preparedness Cadets) to map disaster-prone areas, conduct public disaster education, and enhance field response through direct aid distribution simulations. Altogether, these initiatives aim to improve preparedness and the overall effectiveness of logistical operations in responding to both natural and social disasters across the Karimun region.

This community service initiative (PKM) was conducted in Karimun Regency using a systematic and needs-based approach. The implementation began with field observations and direct interviews with disaster victims to identify urgent issues and pressing needs. The findings from this initial stage served as the foundation for designing targeted programs aimed at producing tangible benefits for affected communities.

One of the primary challenges in the distribution process is the delayed delivery of logistical aid from the Ministry of Social Affairs, which hinders timely emergency response. Coordination difficulties with the Regional Disaster Management Agency (BPBD) also pose obstacles to the

effective execution of emergency response measures. Between January and September 2024, a total of 33 natural and social disaster incidents were recorded in Karimun Regency, affecting 965 individuals. All reported cases were successfully addressed by the Social Affairs Office.

Following the initial response phase, the Social Affairs Office undertakes continued evaluation and monitoring of community conditions. This includes data collection to assess the effectiveness of aid and recovery programs already implemented. Additionally, disaster preparedness campaigns are conducted to equip the public with the necessary knowledge and skills for future emergencies. Collaboration with both governmental and non-governmental organizations is essential in strengthening social support networks and accelerating community recovery.

4. Conclusion

As the primary coordinator, the Social Affairs Office of Karimun Regency is responsible for organizing assistance that covers basic necessities and psychosocial support. Despite significant efforts, challenges such as delays in distribution from the Ministry of Social Affairs and suboptimal coordination with the Regional Disaster Management Agency (BPBD) remain areas needing improvement. This work highlights the importance of a holistic approach to disaster management, where synergy among government institutions, community organizations, and the public is key to accelerating

recovery and enhancing social resilience. Therefore, strengthening institutional capacity and improving cross-sector coordination systems are strategic steps that must be continuously advanced to better address potential future disasters.

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