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EFFORTS TO IMPROVE FERRY CROSSING SAFETY AT GILIMANUK PORT DURING THE 2025–2026 NATARU PERIOD

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ABSTRACT
During the Christmas and New Year 2025–2026 period, transportation safety becomes increasingly important due to the surge in passenger mobility. As the main ferry gateway connecting Bali and Java, Gilimanuk Port in Jembrana Regency plays a strategic role in ensuring safe and orderly crossings. This community engagement activity aimed to support efforts to improve ferry crossing safety, conducted as part of the Micro Internship Program at the Nataru Command Post of Politeknik Transportasi Darat Bali (POLTRADA Bali), aimed to improve safety awareness among ferry passengers and ASDP port officers. The activity involved direct safety socialization, brief educational sessions, distribution of informational materials, and field observations at Gilimanuk Port. The focus areas included passenger safety awareness, compliance with port regulations, orderly boarding and disembarkation, and emergency preparedness during peak travel periods. The results showed increased participant awareness, positive engagement, and improved understanding of safety procedures. This initiative demonstrates that targeted safety education at ferry ports contributes to strengthening a safety culture and reducing transportation risks during peak holiday travel.

Keywords: ferry passengers; maritime safety education; port officers; transportation safety

INTRODUCTION

The Christmas and New Year holiday period (Nataru) is consistently marked by a significant surge in population mobility, leading to increased pressure on transportation systems across Indonesia. This condition is particularly evident at major transportation hubs, where high passenger density and intensive operational activities elevate the risk of safety incidents. Without adequate preparedness, coordination, and public awareness, the likelihood of accidents and operational disruptions may increase during peak travel seasons.

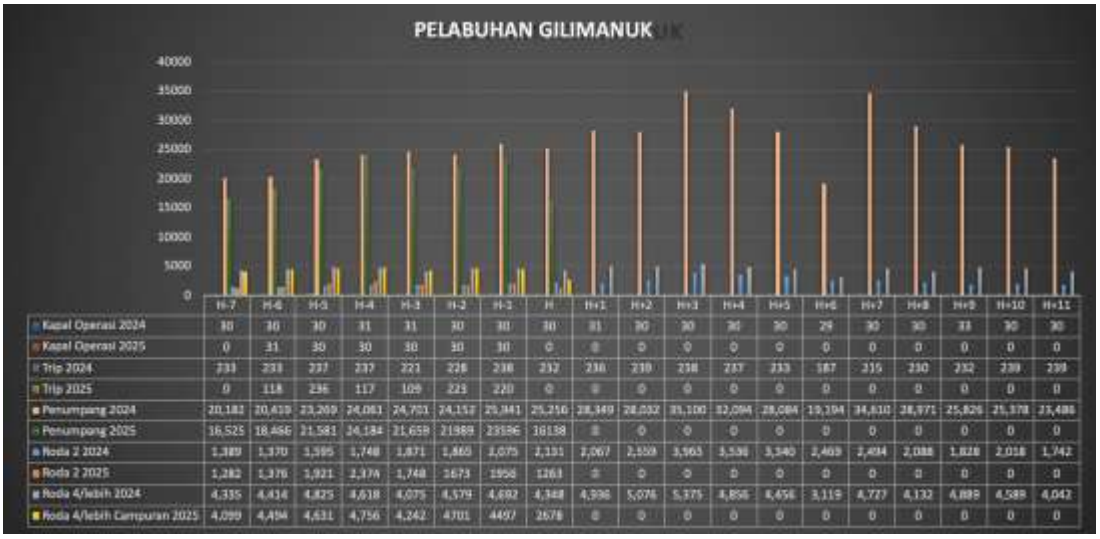
Gilimanuk Port, located in Jembrana Regency, Bali, serves as the primary ferry crossing point between Bali and Java and holds a vital role in national logistics and passenger mobility. During the Nataru period, the port experiences a substantial rise in ferry passengers, private vehicles, public transportation units, and freight vehicles. This surge demands heightened attention to safety management, operational discipline, and effective communication between port officers and service users to ensure smooth and secure crossings.

Operational observations from the Nataru periods of 2024 and 2025 indicate a trend of increasing ferry traffic intensity, particularly during peak arrival and departure times. High-frequency vessel operations, combined with time constraints and passenger fatigue, may

contribute to safety risks if not properly managed. In such conditions, human factors—such as passenger behavior, compliance with safety instructions, and officer vigilance—play a decisive role in maintaining overall transport safety.

Previous studies consistently highlight that human factors remain a dominant cause of transportation accidents, emphasizing the importance of safety education and awareness-based interventions. Structured safety education programs have been shown to improve risk perception, safety knowledge, and rule compliance among transport users and operators (Maslamani et al., 2024). Moreover, safety socialization during high-mobility periods such as Christmas and New Year holidays is particularly effective in fostering responsible behavior and reducing unsafe practices (Kourmousi et al., 2024). While infrastructure and technology are essential components of safety systems, human-centered education remains a critical foundation for sustainable transportation safety (Akbari et al., 2021).

In response to the increasing intensity of passenger movements and operational demands at Gilimanuk Port during the 2025–2026 Nataru period, the Micro Internship Program of POLTRADA Bali through the Nataru Command Post implemented a targeted safety education initiative as part of broader efforts to enhance ferry transportation safety. This activity aims to enhance awareness, understanding, and compliance with maritime safety principles among ferry service users and ASDP port officers, thereby supporting safe, orderly, and reliable cross-island transportation during peak holiday travel (WHO, 2023).



	H-7	H-6	H-5	H-4	H-3	H-2	H-1	H	H+1	H+2	H+3	H+4	H+5	H+6	H+7	H+8	H+9	H+10	H+11
Kapal Operasi 2024	30	30	30	31	31	30	30	30	31	30	30	30	30	29	30	30	33	30	30
Kapal Operasi 2025	0	31	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	0	0
Trip 2024	233	233	237	237	221	228	238	232	236	239	238	237	233	187	235	230	232	239	239
Trip 2025	0	118	236	117	109	223	220	0	0	0	0	0	0	0	0	0	0	0	0
Penumpang 2024	20,182	20,419	23,269	24,081	24,703	24,152	25,341	25,256	28,349	28,032	33,100	32,094	28,084	19,194	34,810	28,971	25,826	25,378	23,486
Penumpang 2025	16,525	18,466	21,581	24,184	21,659	21988	23596	16138	0	0	0	0	0	0	0	0	0	0	0
Roda 2 2024	1,389	1,370	1,595	1,748	1,871	1,865	2,075	2,131	2,067	2,559	3,563	3,536	3,340	2,469	2,494	2,088	1,828	2,018	1,742
Roda 2 2025	1,282	1,376	1,921	2,374	1,748	1673	1956	1263	0	0	0	0	0	0	0	0	0	0	0
Roda 4/lebih 2024	4,335	4,414	4,825	4,618	4,075	4,579	4,692	4,348	4,936	5,076	5,375	4,856	4,456	3,119	4,727	4,132	4,889	4,589	4,042
Roda 4/lebih Campuran 2025	4,099	4,494	4,631	4,756	4,242	4701	4497	2678	0	0	0	0	0	0	0	0	0	0	0

Figure 1. Chart Comparison of ship operations at Gilimanuk port

METHOD

This community outreach initiative was conducted at Gilimanuk Port, Jembrana Regency, Bali, during the 2025–2026 Christmas and New Year (Nataru) travel period. The program targeted ferry service users and ASDP port officers who were directly involved in cross-island passenger transportation activities between Bali and Java. Considering the high density of passenger movements and operational intensity during the peak holiday season, these groups were identified as key recipients due to their heightened exposure to transportation safety risks.

The activity formed part of the Micro Internship Program at the Nataru Command Post of Politeknik Transportasi Darat Bali (POLTRADA Bali) and was implemented in coordination with port authorities and ASDP operational personnel. Educational and observational approaches were applied through direct safety socialization, brief safety briefings, distribution of informational materials, and on-site monitoring of passenger flow and port operations. The initiative was carried out within the operational area of Gilimanuk Port, located in Gilimanuk Village, Melaya District, Jembrana Regency, which serves as the primary ferry gateway connecting Bali and Java and plays a vital role in national passenger and logistics mobility.

Figure 2. Gilimanuk Harbor Entrance Counter

Figure 3. Pos Nataru 2025–2026 Gilimanuk Port

Figure 4. Stalls around Gilimanuk harbor

Figurer 5. Gilimanuk Harbor ticket counter

The community service strategy at Gilimanuk Port integrated public safety education with direct guidance and collaborative engagement to enhance safety knowledge, awareness, and attitudes among ferry passengers and ASDP port officers during the 2025–2026 Christmas and New Year (Nataru) period. This approach was designed to address safety challenges arising from increased passenger density and operational intensity during peak holiday travel. The activity was carried out through three main stages: planning, implementation, and evaluation. During the planning stage, coordination was conducted with port authorities and ASDP personnel to assess operational conditions, identify potential safety risks, and prepare educational materials tailored to ferry port operations.

The implementation stage involved direct safety socialization, brief safety briefings, and interactive discussions conducted within the port operational area. Educational content emphasized compliance with ferry and port regulations, orderly boarding and disembarkation procedures, fatigue management during long journeys, emergency preparedness, and the importance of effective communication between passengers and port personnel. Informational materials were delivered verbally and reinforced through the distribution of printed

educational media. The evaluation stage focused on observing participant responses, levels of engagement, and changes in safety awareness during the activity. Overall, this community service strategy demonstrates that structured safety education combined with direct engagement at ferry ports can effectively support safe, orderly, and reliable ferry operations during high-mobility periods (World Health Organization, 2023).

Figure 6: Road Safety Education Activities for Drivers and Passengers at Gilimanuk port

This community service activity utilized educational media in the form of printed brochures, large safety information boards, and a natural disaster awareness guidebook tailored to the Gilimanuk Port area. The materials were developed in accordance with national transportation safety and disaster management guidelines and adapted to ferry port operations. Approximately 100 brochures were distributed to ferry passengers and ASDP port officers. The guidebook addressed potential hazards such as high waves, extreme weather, and earthquakes, along with mitigation and emergency response procedures. Supporting information was obtained from secondary data on passenger movement trends at Gilimanuk Port during the 2024 and 2025 Christmas and New Year (Nataru) periods and analyzed descriptively. Inferential statistical analysis was not applied, as the primary focus of the activity was safety education and awareness.

Figure 7. Vehicle Rampcheck Book

The success of the initiative at Gilimanuk Port was evaluated using qualitative methods, including direct observation, informal discussions, and the review of feedback from participants involved in the guidance sessions. Indicators of success included the level of participant engagement, responses to the educational activities, and the extent to which ferry passengers and ASDP port officers demonstrated an understanding of transportation and ferry safety principles during interactions. This qualitative evaluation approach is considered appropriate for assessing the outcomes of community-based transportation safety education, as it provides meaningful insights into changes in awareness, understanding, and intended safety-related behaviors following the initiative (Maslamani et al., 2024).

RESULTS AND DISCUSSION

Preparation Stage

The preparation stage focused on establishing coordination and ensuring operational readiness to support transportation safety awareness activities at Gilimanuk Port during the 2025–2026 Christmas and New Year (Nataru) period. Coordination meetings were conducted with port authorities and ASDP personnel to align the activity schedule with peak ferry operations and passenger flow. This phase also included the preparation of educational materials tailored to the characteristics of ferry transportation and port operations, considering the increased passenger movements observed during previous Nataru periods.

A review of passenger movement trends at Gilimanuk Port during the 2024–2025 period indicates a consistent increase in ferry passengers and vehicle crossings during peak holiday seasons. This condition supports the findings of Sutanto et al. (2022), who noted that elevated transportation demand during festive periods significantly increases safety risks and necessitates anticipatory planning. Furthermore, Rahman et al. (2023) emphasized that early coordination and contextual preparation are essential to the effectiveness of safety education initiatives in high-intensity transport environments such as ports. Therefore, the preparation stage was fundamental in ensuring that the safety activities at Gilimanuk Port were timely, relevant, and responsive to actual operational conditions..

Implementation Stage

During the implementation stage, safety education activities were delivered directly to ferry passengers and ASDP port officers within the operational areas of Gilimanuk Port. Educational interactions were conducted through brief safety briefings, informal

consultations, and interactive discussions while passengers waited for boarding and during controlled movement within the port area. This approach allowed educators to engage participants without disrupting ferry operations.

Comparative observations of passenger volumes during the 2024 and 2025 Nataru periods indicate increasing operational intensity, which may contribute to higher fatigue levels, time pressure, and safety risks. Accordingly, the educational sessions emphasized key safety aspects such as compliance with port and ferry regulations, orderly boarding and disembarkation procedures, awareness of emergency signals, fatigue management during long journeys, and adherence to instructions from port officers. The implementation results showed that participants responded positively to the safety messages and actively engaged in discussions. This finding aligns with Wibowo et al. (2023), who reported that direct safety education delivered at transportation hubs improves user understanding and compliance, particularly during periods of heightened travel demand.

Passenger and Driver Response

Qualitative feedback collected through observation and informal discussions revealed favorable responses from both ferry passengers and ASDP port officers. Passengers expressed increased awareness of potential safety risks associated with crowded conditions and maritime travel during peak holiday periods. At the same time, port officers demonstrated reinforced commitment to enforcing safety procedures and providing clear guidance to passengers.

The continued growth in passenger numbers at Gilimanuk Port suggests that passenger behavior plays an important role in maintaining overall safety during ferry operations. Rahmawati and Hidayat (2023) highlighted that informed passengers can contribute to safety by following procedures, remaining alert, and cooperating with transport personnel. The responses observed during this initiative indicate that participants became more attentive to safety information and more willing to support orderly port operations.

Discussion of Safety Implications Based on AKAP and AKDP Data

Analysis of passenger movement trends at Gilimanuk Port during the 2024–2025 period provides a valuable basis for understanding the importance of safety education during peak travel seasons. The increasing volume of ferry passengers and vehicles reflects rising mobility demands, which may elevate accident risks if safety awareness is insufficient. By addressing human factors before and during travel, safety education activities conducted at port locations serve as preventive measures.

These findings support the conclusions of Prasetyo and Lestari (2021), who found that transportation safety education implemented at strategic transport nodes effectively reduces unsafe behaviors. The integration of descriptive operational data with observed behavioral responses illustrates that safety education is not only relevant but increasingly essential during periods of intensified transportation activity.

Overall Contribution of the Activity

Overall, the results indicate that the transportation safety education activities conducted at Gilimanuk Port during the 2025–2026 Nataru period contributed to improved safety awareness among ferry passengers and port officers. By aligning educational efforts with actual passenger movement patterns, the initiative strengthened preventive safety measures

and supported the development of a safety-oriented mindset in ferry transportation connecting Bali and Java.

CONCLUSION

The transportation safety education activities conducted at Gilimanuk Port during the 2025–2026 Christmas and New Year travel period demonstrate that safety programs implemented at strategic maritime transportation hubs play a crucial role in enhancing awareness, responsibility, and compliance among ferry passengers and port personnel. By emphasizing human factors, the initiative effectively addressed the increasing complexity of passenger movement and ferry operations during peak travel periods.

Ferry passengers showed improved understanding of safety procedures and emergency preparedness, while port officers reinforced their role in guiding and managing passenger behavior. The successful implementation of this program highlights the importance of collaboration between educational institutions, port authorities, and ferry operators in fostering a sustainable transportation safety culture, particularly during periods of high mobility.

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