ABSTRACT

Indonesia is a country that is prone to various types of natural disasters. These natural disasters cause significant losses, both direct and indirect, such as loss of life, damage to facilities and infrastructure, loss of valuable property, environmental damage, and psychological trauma among disaster victims. According to Law No. 24 of 2011. In this distribution system, the priority is on the speed and accuracy of disaster management or disaster response services, which is a process of organizing or planning preventive actions up to recovery after a disaster occurs (Law of the Republic of Indonesia No. 24, 2007).

Several subdistricts in Cianjur Regency are still unable to receive an equitable distribution of aid from the three central distribution warehouses. This is because distribution is concentrated in certain subdistricts, while other subdistricts do not yet have clear logistics channels or balanced distribution intensity. This imbalance can hamper the process of distributing aid to communities that are still not receiving optimal services.

This issue relates to the importance of considering various criteria when determining the location of temporary warehouses for distributing aid to disaster victims. An inappropriate location can result in low aid distribution effectiveness. Therefore, a more in-depth analysis of a number of key criteria is needed, such as proximity to beneficiaries, location free from disasters, availability of road infrastructure, environmental safety, and warehouse facilities. One method that can be used to evaluate and prioritize these criteria is the Analytical Hierarchy Process (AHP), which enables systematic and objective decision-making in selecting the optimal warehouse location.

Theories relevant to the issues discussed to support problem solving consist of Supply Chain, Distribution and Transportation, Warehouse Location Determination, Analytical Hierarchy Process (AHP), and Decision Support Systems.

The supply chain consists of all parties involved, either directly or indirectly, in meeting customer demand. The supply chain is not limited to manufacturers and

suppliers, but also includes transportation, warehousing, retail, and even the customers themselves.

Distribution is an important aspect of a company, given its role in delivering products to consumers. Therefore, distribution management must be efficient as it will have an impact on distribution costs. Product distribution will depend on the capacity of the existing factory, especially if the company has more than one factory and has to ship products to more than one destination.

Defining humanitarian logistics as a system used to mobilize the use of resources, including human resources, expertise, and knowledge, to assist communities affected by disasters or emergencies. Humanitarian logistics involves the planning, implementation, and control of the flow of costs, storage of goods/supplies, and related information from the point of origin to the point of consumption in an efficient and effective manner to meet demand while reducing demand in an effort to alleviate the suffering of communities affected by disasters and vulnerable to them. In general, humanitarian logistics includes procurement, transportation, tracking and tracing, customs clearance, warehousing, distribution, and last-mile delivery. From the perspective of the disaster management cycle, logistics management is related to the preparation, response, and reconstruction stages. These three stages are then referred to as the disaster logistics process. In more detail, activities in the disaster response supply chain consist of: a) preparedness; b) assessment/comparison; c) resource mobilization; d) transportation; e) procurement execution; f) tracking and tracing; g) asset/stock management; h) extension of delivery points; and i) performance evaluation.

Keywords: Natural disaster, Warehouse location selection, Logistics management, Indonesia