

# A Mathematical Model for the Relief Logistics in Humanitarian Supply Chain

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### 1. Round 1

#### 1.1. Reviewer 1

Reviewer:

Please ensure the abstract concisely summarizes the key aspects of the methodology and findings. Consider adding a sentence about the primary innovation of the five-level model for clarity.

Expand the keywords to include "stochastic modeling" and "crisis response," as these are central themes of your research.

Discuss potential limitations of the current model and any assumptions that might affect the generalizability of the results. For instance, how does the model handle sudden changes in disaster intensity?

Ensure all figures and tables are properly labeled and referenced in the text. Figure 1 needs a detailed caption explaining the components of the model.

Response: Thank you for your comment. I will consider these comments.

## 1.2. Reviewer 2

Reviewer:

The introduction would benefit from a brief overview of past models in humanitarian logistics to better position your model's innovation. Cite specific studies for comparison.

Clarify the selection criteria for candidate sites of regional warehouses. What specific factors made these sites preferable? This addition will enhance the replicability of your model.

Include a more detailed discussion on how the results of the model were validated against real-world scenarios. If simulation or historical data were used, please specify.

Several references appear outdated or irrelevant to the current context of the model. Please update your literature review to include recent studies from 2022 and 2023, ensuring a comprehensive overview of the latest developments in the field.

Response: Thank you for your comment. I will consider these comments.

#### 2. Revised

Editor's decision after revisions: Accepted. Editor in Chief's decision: Accepted.

