

Outline for a Bachelor's Thesis in the Risk Management Research Group

Topic: The "Last Mile" in Humanitarian Logistics – Distribution Strategies for Urban Areas in Emergencies

Context:

Handing good to the right people is a crucial step in Humanitarian Logistics. Even though some researchers discussed strategies for the so-called "last mile" of humanitarian goods, the vast majority of models in Humanitarian Logistics concentrate on transportation network optimization or warehouse location planning. In these cases, researchers tend to accumulate the population to density points and neglect the challenging task to provide the goods to the right people. This can have dramatic consequences – especially in densely populated urban areas.

In order to be able to suggest emergency procedures that can be applied in reality, the identification of an appropriate strategy for the last mile of the good is mandatory. Therefore, the aim of the thesis is to provide an overview on the last mile delivery of humanitarian goods and to discuss the advantages and disadvantages of the strategies and means of transportation.

The following aspects should be included in the thesis:

- (1) A general overview of strategies to provide goods in urban areas (stores, mail, bike, drone ...).
- (2) A literature review on approaches to deliver goods during disaster relief operations.
- (3) An overview of real life cases, in which the presented strategies were chosen.
- (4) Discussion of the advantages and disadvantages of each strategy for the delivery of different types of products (e.g. medicine, food, water, fuel ...).
- (5) An outlook to developments and trends of last mile delivery (both in disaster times and in general).

The thesis can be written in German or English.

Requirements:

Advanced knowledge in the fields of operations research and supply chain management is recommended (and/or the motivation to acquire this knowledge).

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