

## IE482 HUMANITARIAN LOGISTICS EARTHQUAKE PROJECT REPORT GROUP-6

This report analyses the structural resilience & laws and regulations in the context of construction of buildings. In order to mitigate the effect of earthquakes to buildings, as group 6, we propose to establish a new independent committee. This committee aims to reduce the number of buildings that are unstable, unsecured, and susceptible to collapse in an earthquake. In order to fulfill the purpose of the foundation, this committee divides its missions into three main categories. These three categories are determined after careful examination and analysis of the research topic.

The first purpose of the committee is bringing a stricter legal framework into the construction area. It basically aims to decrease the number of accidents caused by the low and inadequate power of the laws and regulations over the construction business. In our country, unfortunately, many construction companies collaborate with the government, and due to corruption and bribery being prevalent, human life is often disregarded in favour of profitability in the construction sector. In order to diminish this situation, increase the number of regulations to force companies to use innovative materials that are proper and compatible with climate so that they reduce the possibility of decay. In addition, in many homes, furniture is not secured to the walls. Legal regulations could be introduced to address this issue, or since many homes are now delivered furnished by contractors, it could be made mandatory for the furniture in these homes to be secured. Also, the government can be made to initiate incentive programs for not only insurance purposes but also construction incentives. Insurance incentives are for the people who cannot afford to make insurance and construction incentives are for construction companies avoiding to pay the high initial investment cost (high-quality concrete, durable steel, and premium sand, etc.). The second purpose of this committee is to initiate the community engagement program. This program aims to educate the contractors and architects not from a technical perspective but in an ethical way by collaborating with NGOs and academics. That program reminds these people of their ethical dimension of their job and they should not forget and underestimate that point of view during the construction period. The ultimate goal of this committee is to establish an independent and, if possible, international auditing system. This system is to be assigned to supervise the contractors, constructors, and architects to be sure of the durability of buildings. Also, the committee should plan the inspection times for the construction sites on a regular basis for specific periods. These regular inspections ensure that the construction continues as approved in the initial phase of the project. This way, it is confirmed that the construction company complies with the laws and regulations at any point during the construction. If any discrepancies are found, a process leading up to the cancellation of the construction is initiated, and the company becomes solely responsible for any financial losses incurred.

Therefore, thanks to this planned committee the possibility of living in more durable and safe buildings can be increased.