

Five Guiding Principles to Enhance Community Participation in Humanitarian Engineering Projects

Summary Paper

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1 TARGET AUDIENCE

Humanitarian engineering professionals, educators, and students working on small-scale projects who are looking for ways to increase the participation of their community partners.

2 BACKGROUND

Humanitarian engineering (HE) is a very complex endeavour that requires addressing technical problems while at the same time fully engaging the community members who will ultimately benefit from the engineers' solutions. Community participation is particularly important because it is directly linked to the sustainability of projects. Whilst many strategies have been proposed to engage partner communities, HE literature lacks a comprehensive framework of guiding principles for more effectively engaging community members.

3 PURPOSE

The goal of this study is to develop a framework of principles that can guide humanitarian engineering professionals and educators to enhance the participation of community members.

4 METHOD

In this study we used a qualitative systematised literature review to collect 49 journal articles focused on humanitarian engineering projects and strategies. We then analysed the 49 papers using a qualitative content analysis that led to the development of a framework of principles and competencies.

5 RESULTS

The content analysis of the collected papers lead to identification of five guiding principles: 1) collaborating with local champions (NGOs and similar), 2) harnessing local resources and expertise, 3) integrating ethics and social justice, 4) building trusting and equitable relationships, and 5) creating competent multi or inter-disciplinary teams.

6 IMPLICATIONS FOR TARGET AUDIENCES

By providing a framework of guiding principles, humanitarian professionals and educators will be able to enhance the way they interact with community members. Specifically, we conclude the paper with a set of guiding questions based on the five principles that should help humanitarian engineering students and professionals reflect on their projects and identify ways to improve their interactions with community members. The framework also has implications for education and training by outlining key competencies (e.g. humility, self-awareness, cross-cultural, and listening skills) that engineers should develop before undertaking such projects.