



# Focus on Social Sustainability in Design and Build Construction Projects

The imbalance in the implementation of triple bottom lines of sustainability is extremely noticeable in the construction industry, where the economy and environment have received higher attention than the social sector. Social sustainability is "a life-enhancing condition within communities and a process within communities that can achieve that condition" [1]. Accordingly, there is a necessity of initiating and implementing social sustainability in construction projects. The Sri Lankan construction industry is embarrassing sustainability and recent trends disclose the incorporation of Design and Build (D&B) for sustainable projects. Henceforth, this article reveals the initiation steps for identifying the socially sustainable construction practices possible to be implemented within D&B construction projects.

## Social Sustainability in Construction

Global literature on sustainability has disclosed sustainable construction practices which focus on the social pillar. Accordingly, nine highly observed sustainable construction practices from the social perspective have been identified to investigate the practicality of implementation in the D&B procurement approach. Quality of health and safety, respect for culture and heritage, strengthening community relationships and social benefits, early incorporation of the construction team to the project, strengthening stakeholder involvement in decision making, quality of services providers, commercial viability and security, training and

“ Embedding unique concepts of design and build procurement in social sustainability makes the door opened for sustainable economy and environment ”

education, and ensuring recognition and reputation of the project have identified as the socially sustainable construction practices [2].

### Design and Build procurement

Key characteristics of D&B procurement have been revealed under eight main themes time, cost, quality, knowledge, complexity, responsibility, technology, and communication [3]. Accordingly, concurrent design and construction, certainty in cost, blending the knowledge of different stakeholders at the same firm, and single point responsibility have been identified as some unique features of the D&B concept which can be best utilised in the social perspective of sustainability.

We adopted a qualitative approach and survey strategy in this study. Interviews were conducted with four professionals with both academic and industry knowledge regarding both social sustainability and D&B procurement to acquire knowledge about the practicality of implementing nine identified concepts in the particular procurement route. Based on the expert views, we identified five main categories of which social sustainability can be promoted and classified the identified practices under the five categories of project recognition, community health, education, behavioral and cultural values, and community relationship and networking are shown in Figure 1.

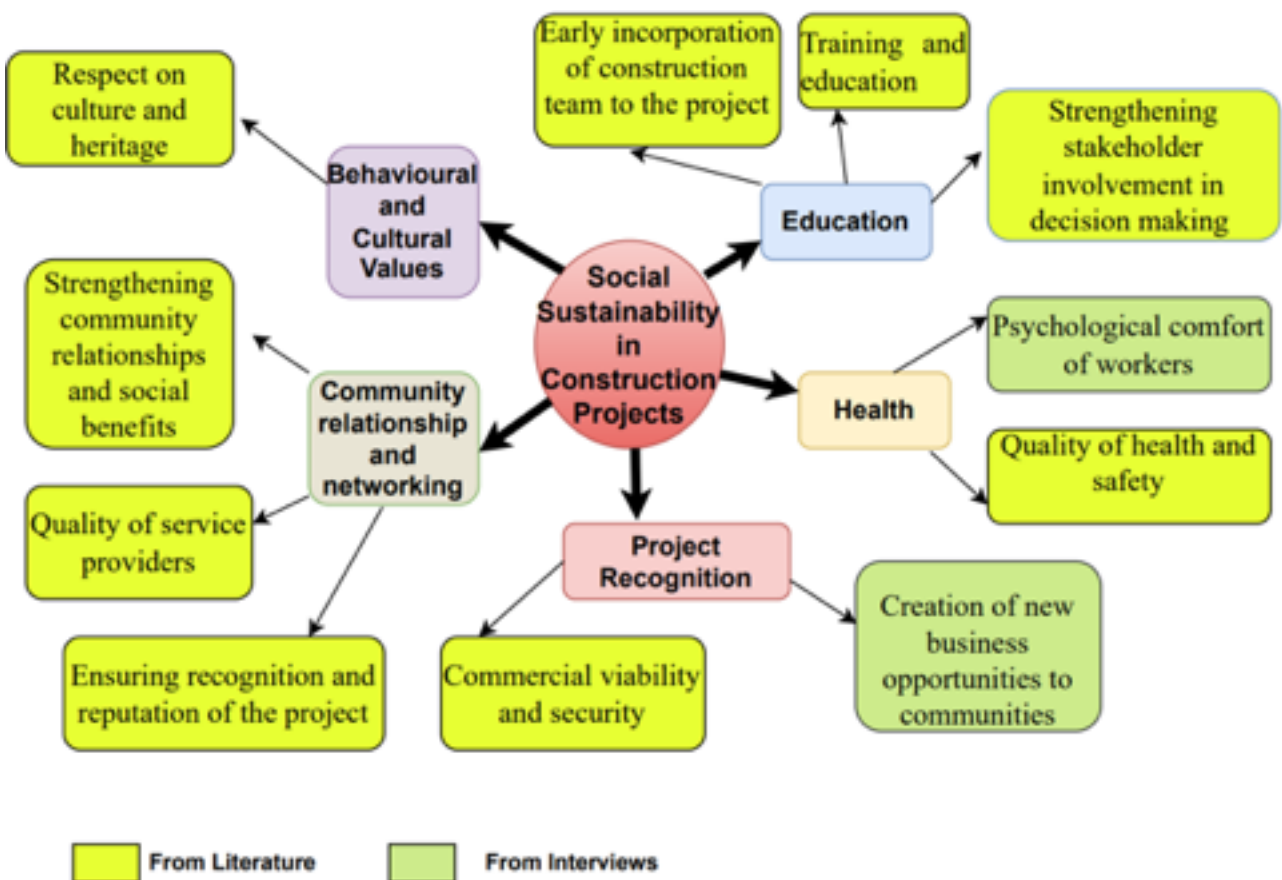


Figure 1: Socially sustainable construction practices

According to Figure 1, the identified factors strengthen the sociality sustainable construction practices, and while they originate focusing on the project, the benefits extend to the entire community. The respondents have suggested additional socially sustainable construction practices applicable to Sri Lanka by highly emphasizing the importance of the psychological comfort of workers and the creation of new business opportunities for communities. Since the D&B procurement approaches single-point responsibility, it affects the psychological comfort of workers by providing a familiar environment for working. As it uses the knowledge of both designers and contractors in one firm, it can be used as an opportunity to generate new business opportunities with the integration of two concepts.

Therefore, it will be a fruitful first step for D&B contractors and clients to focus on the social sustainability requirements of the project itself as they are mobilizing from an early stage, have the single point responsibility, and have a narrowed network of communication. Developing a client brief and an initial checklist by the contractor can be suggested as initial requirements.

The findings intensified the potential of successful adaptation of mentioned practices with D&B procurement and emphasize misinterpretation of the Sri Lankan construction industry on the term "Design and Build Contractors". According to their views, the majority of Sri Lankan design and build contractors possess less design knowledge especially, to promote social sustainability. Consequently, a higher number of issues are observed in the projects acquired by local D&B contractors than by foreign firms. Further, the respondents reveal that social welfare emerges as a general requirement in all construction projects. However, the degree of implementation is different. Accordingly, characteristics of D&B procurement can be effectively incorporated to develop the requirements up to a sustainable level.

## References

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## Article by

Malsha Nadeetharu, Udayangani Kulatunga

Department of Building Economics, Faculty of Architecture, University of Moratuwa, Sri Lanka