

[DOI: 10.20472/IAC.2019.050.021](https://doi.org/10.20472/IAC.2019.050.021)

## **KIN-SUN ANDY LAI**

**Technological and Higher Education Institute of Hong Kong, Hong Kong**

# **IMPACT OF CO-DESIGN FOR ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

### **Abstract:**

Despite the renowned economic prosperity of Hong Kong, there are many underprivileged families who are currently residing in sub-divided units (SDUs) due to the shortage of public housing and skyrocketing rent in the city. Over 200,000 Hong Kong people have lived in such substandard dwellings which offer an average of 5.8m<sup>2</sup> floor area per person. For the 3-person and 4-person households, the average area per person drops to 3.7m<sup>2</sup> and 3m<sup>2</sup> respectively (Census and Statistics of Hong Kong, 2016). Low-income households have to compromise on their quality of life for affordable housing, and suffer from lack of living space and facilities (Leung & Yiu, 2019). Given that those aged below 15 accounts for 17.9% of residents in SDUs (Census and Statistics of Hong Kong, 2016), this disadvantaged segment is crying for quick, innovative yet sustainable solutions to the social problem (Rittel & Webber, 1973) faced by them every day.

Identifying the vile living conditions of sub-divided units' tenants, this research calls for creative solutions through bottom-up involvement of people in the community and institutional network. The research examines the relationship between environment and sustainable development through a Co-Design approach. The research entails a case study of six real-life Co-Designed furniture project for selected sub-divided unit families and a series of post-production survey and questionnaire. The qualitative research enlightens the social sustainability of how Co-Design can assist children and early teenage in improving their built environment, and more importantly, at the same time, how to catalyze changes in people's perceptions and assumptions of their living space, and evoking social sustainable behavioral changes among the participants.

### **Keywords:**

Sustainable Development, Co Design, Qualitative Research