

## **Developing affordable housing design for low income in Sana'a, Yemen**

### **ABSTRACT**

**Purpose:** Housing costs are very high in Yemen compared with Middle East countries, which caused a shortage of housing supply especially for low-income groups. This paper aims to develop affordable housing design for people with low income and to examine their ability to afford houses in Sana'a, Yemen.

**Design/methodology/approach:** Two different questionnaires were used to achieve the study objectives. The first one was to examine the requirements and needs of low-income groups, while the second was to analyze the feedback of professionals in relevant housing authorities in Sana'a. An affordable house design methodology was used to design alternatives of low-income housing in order to minimize cost and environmental impact while maximizing the social acceptability in housing projects.

**Findings:** The results show that the low-income group can afford new houses in Sana'a in consideration of the following: constructing multi-storey housing units such as apartment system through using the concrete frame structure and building the internal and external walls with concrete blocks with limited areas (65-120) square meters.

**Originality/value:** The findings could be used to improve housing affordability through housing policies in Yemen in order to decrease the housing shortage particularly for the low-income group.

**Keyword:** Housing; Low pay; Prices; Yemen