

# Barriers and opinion of buildres regarding green building and the extent of greenness of the buildings constructed by them: A study of their interrelationship

■ SHILPI SARASWAT AND MANEESHA SHUKUL

## Article Chronicle :

**Received :**  
23.02.2017;  
**Revised :**  
15.05.2017;  
**Accepted :**  
26.05.2017

## Key Words :

Opinion of  
builders, Green  
buildings,  
Environment  
friendliness

## Author for correspondence :

**SHILPI SARASWAT**  
Department of Family  
and Community Resource  
Management, Faculty of  
Family and Community  
Sciences, The Maharaja  
Sayajirao University of  
Baroda, VADODARA  
(GUJARAT) INDIA  
Email : [saraswat.shilpi@  
gmail.com](mailto:saraswat.shilpi@gmail.com)

See end of the article for  
**Coopted authors'**

**ABSTRACT :** The global environment is affected by the irreversible damage caused by the human activities. The increasing rate of real estate industry everywhere is creating pressure on its natural resources and environment. When a building is constructed it effects environment right from excavation of construction sites, construction process, to operation of buildings which requires significant input of energy, water, raw materials also responsible for lots of waste and emissions. Escalating concern for the environmental impact of real estate has compelled the formulation of sustainable solutions by adopting the concept of constructing green buildings. It is considered as integrated approach towards minimising the negative impacts of construction and its operations on the environment. Green buildings are designed and constructed in such a way that it increases the whole lifecycle performance as well as conserve resources. It has been observed that Vadodara city has witnesses a remarkable growth in the construction of commercial as well as residential sectors. Hence, a study was conducted firstly, to find out the opinion of the builders regarding adoption of green building concept in their construction of residential sectors and the barriers faced in adopting the same and secondly to find out the extent of greenness of the selected houses constructed by these selected builders. The data were gathered through a questionnaire from a sample of 75 builders through convenience sampling. The data were also gathered through an observation check list from a sample of 220 existing residential buildings which were constructed between January, 2005 to December, 2013 selected through purposive sampling. The findings of the study revealed that majority of the builders were middle aged. Majority of the builders faced lack of technical knowledge amongst their project team, contractors and clerk and lack of interest in implementing green building concept as high extent of barrier in adopting green building design and construction. Majority of the builders had somewhat favourable opinion regarding green building. Majority of the houses had moderate extent of greenness for all the sub aspects. Nearly three fourth of the respondents' houses had moderate extent of greenness on the overall scale. The results of mean scores were found highest for the sub aspect "Indoor Environment Quality" and lowest for "Innovative Ideas" sub aspect. The builders can be made aware through an educational programme given by the educational institution about the impact of the buildings on the health of the occupants and to construct a building which incorporates features of green building.

**HOW TO CITE THIS ARTICLE :** Saraswat, Shilpi and Shukul, Maneesha (2017). Barriers and opinion of buildres regarding green building and the extent of greenness of the buildings constructed by them: A study of their interrelationship. *Asian J. Environ. Sci.*, 12(1): 60-68, DOI: 10.15740/HAS/AJES/12.1/60-68.