

Review of LEED certified buildings in terms of sustainable design: the case of Turkey

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ABSTRACT:

It appears that an ecological awareness has arisen all around the world as a result of ecological problems such as global warming, climate change, environmental pollution and rapid depletion of natural resources. Buildings have an impact on the environment too. The demand for sustainable building facilities with minimal environmental impact is increasing. Construction sector has started a green transformation to combat climate change. Sustainable building is also called green building. Being green in the construction sector means designing and constructing buildings in such a way as to reduce the negative impact of the building and its users on the environment, climate and human health throughout the building's lifetime. Following the early examples of green building projects, Green Building Rating Systems were created with the aim of certifying, promoting and mainstreaming the environmentally-friendly properties of such buildings. 12 Leadership in Energy and Environmental Design (LEED) certified buildings are selected for the sample and are assessed with respect to the sustainable design principles. On the basis of the analyses conducted on the sample, it is concluded that sustainable design principles must be taken into consideration as a whole in designing green buildings. It has become important for architects to be knowledgeable about sustainable design principles to design projects.

Keywords:

Sustainable design, Leadership in Energy and Environmental Design (LEED), Green building rating system, Green building, Sustainability.