PDF Available Article

Developing a green building assessment tool for developing countries - Case of Jordan

May 2009 · Building and Environment 44(5):1053-

DOI: 10.1016/j.buildenv.2008.07.015

Hikmat Ali

Authors:

1064



Jordan University of Science and Techn...

References (24)

Al-Ahliyya Amman University



Saba Alnusairat



B Download full-text PDF

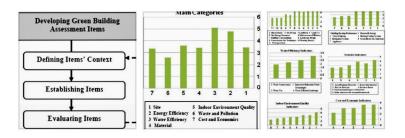
Abstract and Figures

Citations (608)



The purpose of this research is to contribute to a better understanding of the concept of green building assessment tool and its role for achieving sustainable development through

developing an effective green building rating system for residential units in Jordan in terms of the dimensions through which sustainable development tools are being produced and according to the local context. Developing such system is becoming necessary in the Developing World because of the considerable environmental, social and economical problems. Jordan as one of these countries is in need for this system, especially with poor resources and inefficient use. Therefore, this research studied international green building assessment tools such as such as LEED, CASBEE, BREEAM, GBTool, and others. Then defined new assessment items respecting the local conditions of Jordan and discussed them with (60) various stakeholders; 50% of them were experts of sustainable development. After selecting the assessment items they were weighted using the AHP method. The outcome of the research was a suggested green building assessment tool (SABA Green Building Rating System) - computer based program - that suits the Jordanian context in terms of environmental, social and economical perspectives.



Steps for developing...

Means and ranking of...

Means and ranking of sit...

| te | Energy | Effi- | Water E |
|--------|--------|-------|---------|
| | | 2.3 | 2 |
| | | | 1 |
| | | | |
| | | | |
| | | - / | |
| con: 0 | .00 | | |

| | Low-impact construction site techniques Housing density (no. of units/area) Transportation | |
|-------------------------------|---|--|
| Energy efficiency | Building envelope performance Renewable energy Natural lighting lighting Energy-efficient heating/cooling system Mechanical systems Green house gases emission Machiner/applances | |
| Water efficiency | Water consect and inpose we reduce an water technologies/internal water set water efficie scape/external | |
| Material | Local/regional materials Renewable material Recycle material Resource reuse Environmental impact of materials | |
| Indoor environment quality | Occupant health and safety Indoor air quality performance Quality of life Increase ventilation efficiencies Thermal comfort | |