Constructing an Urban Future: The sustainability and resilience of cities – infrastructures, communities, buildings and housing.

• Paper / Proposal Title:
A different shade of green? Assessing the suitability of international sustainability rating tools for adoption in Bahrain.

• Format(s):
In-person presentation / Written paper

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• Abstract (300 words):
The increasing international attention to the impact of humanity on the natural environment has been pushing governments to ensure the sustainability of the design, construction, and operation of buildings. Thus, assessment tools were developed since the 1990s to evaluate the sustainability of local building stocks. There is today tens of evaluation programs that focus on different sustainability-related parameters; however, no specific tool is being used in Bahrain; the small, yet sustainably challenged, urban island in the Arabian Gulf. This paper investigates five sustainability rating tools, which were chosen for this study because of their relevance to the context, popularity and their alleged international influence: The American LEED (Leadership in Energy and Environmental Design system, developed in 1998. The UK BREEAM (Building Research Establishment’s Environmental Assessment) system, established in 1990. The Japanese CASBEE (Comprehensive Assessment System for Building Environmental Efficiency)
developed in 2001. The Australian GREEN STAR created in 2003 and the Pearl Rating System (ESTIDAMA), implemented in 2010. Using comparative analysis, this paper aspires to give insight on which of the selected rating systems is more suitable for adoption in Bahrain and to assess the need and importance for the creation of a sustainability assessment tool, which is tailored for the unique context and culture of the island country. While doing this, the study also attempts to evaluate the claimed internationalism of the above-mentioned rating systems and to give recommendations on the ways in which such evaluation strategy could be integrated into the processes and systems of local governances in the built environment, with a particular focus on developing countries.

Keywords: Bahrain; Sustainability; BREEAM; CASBEE; GREEN STAR; LEED; ESTIDAMA.

• Author(s) Biography (200 words each):

Dr. Al-Khalifa is a researcher with a Masters degree in Conservation and Regeneration and a Ph.D. in Landscape, which is, focused on the interrelationship between Cultural Change and Urban Sustainability, particularly in the Arabian Gulf Context. Her research aspires to contribute to the understanding of sustainable urbanism within the context of transformed cultures, urban islands, and urban archipelagos. She was part of a team that won the Golden Lion award in the Venice Biennially in 2010, and she was awarded RIBA’s president’s award for research in 2012. Dr. Al-Khalifa is also interested in the importance of sustainability in real estate, as an asset class, the dynamics of considering sustainability assessment tools in real estate development and the influence of visualization on the opinions and actions of decision makers. She has published two journal articles and two articles in conference proceedings. She also obtained two professional certificates; the ISM Certificate in Sales and Marketing Management and the NAIOP Advanced Certificate in Commercial Real Estate Development. Dr. Al-Khalifa is currently the lead researcher in a $22,000 research project that looks into visual discomfort and architecture from a trypophobic perspective and is also leading several other research projects related to sustainable urbanism and real estate development.