

Papajohn, D., Brinker, C., and El Asmar, M. (2016). Criteria for assessing sustainability ratings for the built environment. *Conference Proceedings of the Construction Research Conference*, San Juan, Puerto Rico.

**Abstract:**

Construction has far reaching impacts on human society, economics, and the environment due to its pervasiveness in society, investment of financial resources, and commitment of natural resources. Sustainable development is contingent on reaching a balance between these three elements, often referred to as the triple bottom line. Sustainability rating systems have been developed for the built environment as tools to aid in the growth and application of sustainable development. Examples of rating systems for buildings include building research establishment's environmental assessment method (BREEAM) and the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED). Examples of rating systems for infrastructure include Civil Engineering Environmental Quality Assessment and Award Scheme (CEEQUAL) and the Institute for Sustainable Infrastructure's (ISI) Envision. However, there is no widely accepted method to determine the effectiveness of the more than 100 sustainable rating systems in existence or the future rating systems to be developed. A framework is needed to specify criteria for assessing sustainable rating systems. This paper consists of the first phase in developing this framework: identifying its key assessment criteria. The paper reviews 92 published sources on sustainable development across multiple disciplines to identify and summarize the 19 key criteria used to assess sustainability rating systems. The second phase of this research effort will consist of using these 19 criteria to develop the framework, and apply it to assess, improve, and compare sustainable rating systems, while also providing an approach to create new rating systems.