



## INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

### **Sustainability and Cleaner Production in Construction Sites**

J. Gehlen <sup>a</sup>

a. Universidade de Brasília, Brasília, [jugehlen@gmail.com](mailto:jugehlen@gmail.com)

---

#### **Abstract**

This work addresses the concept of sustainability and cleaner production and its application in construction sites. Construction firms are portrayed as having a role in conveying changes in the productive chain of the construction industry. Although the main focus of sustainable initiatives in building has been in the architectural design phase, the building site—where construction firms have more leverage—may contribute significantly to reduce the environmental liabilities in the industry.

The sustainable construction site may be actualized in different ways from the pursuing of strategic actions, which are classified as: responsible procurement; community relations; occupational health and safety management; quality management project; reduction of construction waste; solid waste management; land use and occupation (construction site design); water consumption; energy consumption and transportation; local vegetation and wildlife conservation; and education of partners.

Assuming that sustainability will only be attained by means of strengthening the learning system of construction firms, three sorts of corporate culture instruments are analyzed: management systems (ISO 9001, PBQP-H, ISO 14001, OHSAS 18000, SA 8000), green building certifications (LEED and AQUA) and local programs (PGM and PRAS), from the standpoint of each instrument's contributions to the development of sustainable construction sites.

*Keywords: Sustainable construction, construction sites, certifications.*

---