



Applicability of Life Cycle Assessment Technique to Concrete Structures

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Master's Degree Planificacion Y Gestion En Ingenieria Civil

March 2012

B.1. ABSTRACT

In recent decades society has increased its concern about environmental protection, in order to achieve sustainable development. However, there are several economic sectors like construction industry, which still are cause for a wider number of environmental impacts and, therefore, require improvement in their processes. The purpose of this final work for the Master in Planning and Management in Civil Engineering is to establish the current state of the art regarding Life Cycle Assessment (LCA), particularized to its applicability to concrete structures. (p3)

...2.1.2 Sustainable Development: Policies and Politics

Direct response to the *Kyoto Protocol* on behalf of the European Union took form in 1998 by the **European Commission's** communication "*Energy Efficiency in the European Community-Towards a Strategy for the Rational Use of Energy*" (EU Commission [213]). This communication reflected the European commitment to energy efficiency. Later in 2000 the European Commission would present the "*Action Plan to improve energy efficiency in the European Community*" (EU Commission [214]) aimed to meet the targets established by *Kyoto Protocol*. The Action Plan proposed a target of a 1% decrease per annum until 2010.

Five years after the Commission's action plan of 2000-006 on energy efficiency, it re-launched the debate at all levels of European society by the "*Green Paper on Energy Efficiency*" (EU Commission [216]). In 2006, based on the consultations of the "Green Paper", the European Commission adopted the "*Action Plan for Energy Efficiency (2007-2012)*" (EU Commission [217]). The Action Plan aimed achieving a 20% reduction in energy consumption by 2020, by improving (between other measures):

- Energy performance of products.
- Energy performance of buildings and services.
- Energy production and distribution.
- Rational energy consumption behavior.

On the other hand, United States first position relating its ratification of the Kyoto Protocol was contrary. Nevertheless in 2002 took place the approval of the U.S. Climate Change Policy, with the objective to reduce the “greenhouse gas intensity” of the U.S. economy by 18% over a frontier period of 10 years (Kogan [85]). In order to meet the requirements established by this policy...

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...REFERENCES

...[85] Kogan, L. “The U.S. response to the Kyoto Protocol – A realistic alternative?”. **JOURNAL OF DIPLOMACY AND INTERNATIONAL RELATIONS (2002, pp. 52-92). ISSN 1538-6589.**