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Polluter-Pays Principle Applied to Construction and Demolition Debris

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ABSTRACT

The research focused on the analysis of construction and demolition debris in a sample Brazilian city with the objective to propose a management scheme tailored to private initiative intervention. The debris was found to be produced at a rate of 1.55 kg per person per day for a total of 5177 tons per month. The composition report showed 75% material reusable for construction purposes, 15% material recyclable through reverse logistics and 10% refuse to be disposed of at landfills. The study developed legal and managerial instruments that stimulate private operators to achieve landfill diversions in the order of 90% of this waste. The arguments were supported by a flow diagram that indicates the correct destination of all waste items and an economic balance of private waste movement. Proactive legal scriptures were sketched out that can assist the local administration in setting the timeframe for reaching the diversion target.

KEYWORDS

Brazil, Construction and Demolition Waste, Landfill Diversion, Private Waste Enterprise, Proactive Legislation, Reverse Logistics, Waste Management, Waste Market

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References

- [1] Johannesburg Summit, December 12, 2007, <http://www.jsummit.org>
- [2] Brazil, "Brazilian Law 10257 of July 10, 2001. Establishes Directives for Urban Environmental Policies," (in Portuguese), 2001.
- [3] G. O. D. Azevedo, et al., "Construction Residues in Salvador: The Route to Sustainable Management (in Portuguese)," *Engenharia Sanitária e Ambiental*, Rio de Janeiro, Vol. 11, No. 1, 2006, pp. 65-72.
- [4] U. S. Environmental Protection Agency, December 12, 2007. <http://www.epa.gov/epaoswer/non-hw/debris-new/index.htm>
- [5] New Zealand, Ministry of the Environment, December 12, 2007. <http://www.mfe.govt.nz/issues/waste/construction-demo/index.html>
- [6] European Commission, December 12, 2007. http://ec.europa.eu/environment/waste/studies/cdw/cdw_report.htm
- [7] M. McGinty, "International Environmental Agreements as Evolutionary Games, *Environmental Resource Economics* ISSN 1573 1502," on-line first August 21, 2009.
- [8] European Waste Framework Directive 75/442/EEC, December 23, 2009. <http://europa.eu/geninfo/query/resultaction.jsp?Page=2>
- [9] J. A. Petrick, "Proactive Government Steps in Improving US Industrial Hazardous Waste Management," *Industrial Management*, September 1, 1993.

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- [10] <http://www.allbusiness.com/specialty-business/403547-1.html>, December 23, 2009.
- [11] I. Ferrara, " Illegal Disposal of Commercial Solid Waste: A Dynamic Analysis," *Atlantic Economic Journal*, Vol. 36, No. 2, 2008, pp. 211-232.
- [12] N. V. Long and A. Soubeyran, " Selective Penalization of Polluters: An Inf-Convolution Approach," *Economic Theory*, Vol. 25, No. 2, 2005, pp. 421-454
- [13] A. Stubbs, " Environmental Law for the Construction Industry," 2nd Edition, p. 168, 2002, Thomas Telford Publishing Ltd, London, ISBN 0 7277 3095 9, Chapter 5.2.6. Philippines 1975, Law PD 825, Section 2. <http://www.emb.gov.ph/laws-swm.htm> (2009 12 23).
- [14] Bulgaria, " Waste Management Act No 86/30.09," article 18, 2003. <http://www.moew.government.bg>.
- [15] E. C. Kamau, " Environmental Law and Self-Management by Industries in Kenya," *Journal of Environmental Law*, Vol. 17, No. 2, 2005, pp. 229-244.
- [16] B. Kernohan, " Waste Management Top Priority under New Law," *Cape Town Weekend Post*, October 20, 2009. <http://www.weekendpost.co.za/business/article.aspx?id=484615>
- [17] S. Sharma, " Proactive Corporate Environmental Strategy and the Development of Competitively Valuable Organizational Capabilities," *Strategic Management Journal*, Vol. 19, No. 8, 1998, pp. 729-753. <http://www.jstor.org/pss/3094125>
- [18] M. A. Berry and D. A. Rondinelli, " Proactive Corporate Environmental Management: A New Industrial Revolution," *JSTOR Academy of Management Executive*, Vol. 12, No. 2, 1998, pp. 38-50. <http://www.jstor.org/pss/4165456>
- [19] A. Mazé and C. Ménard, " Private Ordering, Collective Action, and the Self-Enforcing Range of Contracts," *European Journal of Law and Economics*, Vol. 29, No. 1, 2009 on-line first. doi 10.1007/s10657-009-9114-x
- [20] CONAMA, National Environmental Council, Brazil, " Establishes Directives, Criteria and Procedures for the Management of Construction and Demolition Waste (in Portuguese)," Resolution No. 307 of July 5, 2002.