

"CLEANER PRODUCTION TOWARDS A SUSTAINABLE TRANSITION"

Tendencies of Environmental Performance of Brazil

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Abstract

The regional systems depend on natural resources and resources from the economy to produce goods and services, however, such systems have been sustained by the use of natural resources, which puts their sustainability at risk. The process depletes the environmental resources, thus causing divergence between economic development and environmental protection. Thus, it becomes necessary to create policies that can minimize the use of those resources without compromising economic growth. This paper aims to monitor the environmental performance of Brazil by using environmental accounting indicators in emergy, in order to provide subsidies to the development of sustainable public policies that are geared towards economic and environmental sustainability. The results of the environmental accounting in emergy of Brazil for 2011 were compared with those published by Demetrius (2011); such results show that the nation's environmental performance has worsened from 2007 to 2011 as the use of renewable resources fell from 41% to 22%; the use of non-renewable resources has been intensified to a rate of 43%; the environmental load rose from 3.5 to 1.5, and the sustainability index rose from 4.6 to 2.2. In addition, the use of renewable resources, non-renewable and economy was monitored using the emergy ternary diagram. It was verified that the Brazilian economy has been developing economically under an increasing use of non-renewable resources.

Keywords: Environmental accounting emergy. Use of natural resources, Environmental performance of Brazil, Regional systems.