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ADVANCES IN CLEANER PRODUCTION

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“CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD”

## **A Comparative Survey among Emergy Indices and More Usual Sustainability Indexes**

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### **Abstract**

The search for sustainability and the growing concern about the environmental degradation attract more and more researchers from all over the world, therefore, there is the need of development of indexes that include the economy, society and environment. This study applies the emergy synthesis with the aim of determine its indexes and compare them with well known indexes obtained from the literature. The natural resources flows (renewable and non renewable) and the resources from the economy of the countries are evaluated for the calculation of emergy indexes. Correlations were made between the calculated indexes with the well known indexes taken from the literature. The best correlation results were obtained between the Human Development Index and the Ecological Footprint (HDI x EF) and between the Surplus Biocapacity Index and the Environmental Sustainability Index (SB x ESI).

**Keywords:** *emergy synthesis, indexes, sustainability, countries.*

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