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Comparative Analysis of Houses Construction Using Emergy Accounting

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Abstract

We present an application of the methodology of environmental accounting in emergy, comparing the environmental impact generated by a house designed in a timber production system of "exploitation", the second wood of the first use and third, masonry type, from the same architectural project. By using the graphical tool - ternary diagram - , rates the emergy flow and environmental indicators in emergy, in the three models studied. The results showed a favorable trend for the home designed in wood production system of "exploitation", all indicators were higher than the other two cases under study, highlighting the environmental sustainability index of 125 times larger than the house of masonry. This system proved to be less constructive aggressive to the environment, which may allow the adoption of this house as a habitation solution of Vilhena in the state of Roraima, the city adopted as a model for this study.

Keywords: Environmental sustainability, emergy account, environmental indicators, sustainable constructive system, "exploitation" wood.