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ADVANCES IN CLEANER PRODUCTION

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Sustainability in the Bioenergy Industry

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Abstract

Cleaner production is based on techniques to prevent pollution by reducing the energy usage, water and other material resources, minimising wastes, reducing risks and negative environmental impacts from the production process. In this sense, the use of biodiesel appears as a potential substitute fossil energy source which could contribute to a cleaner production, however, biodiesel production and its use still involves challenges and uncertainties at different aspects as social, environmental and economic. The Multi-Objective Analysis establishes relationship among the project and its several drivers, which could support decision makers. This work presents a methodological approach that supply information regarding implementation processes, fixation and discussion around the biodiesel industry considering economic, social, environmental, technician and ethical aspects.

Key words: Biodiesel; Multi-Objective Analyse; Sustainability.