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## Review of Implementation Life Cycle Assessment for Biodiesel Production from Palm Oil (Elaeis guineensis Jacq.) in Indonesia (Conference Paper) (Open Access)

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## Abstract

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Palm oil has benefits for economic and social development in Indonesia. However, palm oil is faced by several environmental problems most of them due to the land conversion from forest to the palm plantation. Therefore, numerous greenhouse gas emissions and other environmental effects also emitted during palm oil and biodiesel production. The life cycle assessment (LCA) method can be used for the evaluation of the palm oil production process impact on the environment as well as for potentially reducing the hotspot. A literature study was used in the identification of the implementation of LCA for biodiesel from palm oil in Indonesia. Study cradle to grave LCA for biodiesel production in Indonesia was still limited. Gate to gate and cradle to gate system boundary was the major boundary system used in the identification of the environmental effect for biodiesel production in Indonesia. However, numerous study has applied that boundary system and various scenario has been proposed in reducing the environmental effect for biodiesel production. Limitation of the LCA boundary for palm oil production is needed to be enhanced as well. Robust life cycle inventory in a wider range (i.e., cradle to grave) will be needed in order to present this industry in a global forum. © The Authors, published by EDP Sciences, 2020.

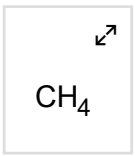
## SciVal Topic Prominence

Topic: Palm Oil Mills | Elaeis Guineensis | Crude Oil

Prominence percentile: 90.789

## Chemistry database information

### Substances




## Author keywords

Biofuel Boundary Clean energy Emission Sustainability

## Indexed keywords

Engineering controlled terms: Biodiesel | Economic and social effects | Gas emissions | Greenhouse gases | Palm oil | Petroleum industry | Petroleum reservoir evaluation

Engineering uncontrolled terms: Biodiesel production | Boundary systems | Economic and social development | Elaeis guineensis | Environmental problems | Life Cycle Assessment (LCA) | Life Cycle Inventory | Literature studies

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