

4. Conclusions

The efficient utilization of energy is a great challenging task to the researchers. The rice industry is one of the most energy consuming industries. Saving of husk could also lead to co-generation of thermal energy in furnaces for boilers and dryers in the rice industry. Thus, energy conservation in the rice industry would lead to reduction in the use of electricity for parboiling process. According IPCC 2007 GWP method, the parboiling process plays a significant role in rice industry. While comparing both rice mills results, RAYIN rice mill generates more global warming potential due to the electricity usage. Electricity generation has become a major impact in generation process. ECO indicator 99 implies that the impact from parboiling and polishing processes, in which the first is deemed to be the major contributor with significant impact, highly affect the environment. Among the impact categories, the Human health and Eco system are which is mostly affected by parboiling process and the Resource category is mostly affected by Polishing Process. Specifically, the parboiling process leads the impacts to environment. In total, parboiling and polishing are the most influencing processes towards the environment respectively. Corrective action needs to be taken to minimize the CO₂ eq emissions to convert the products towards being carbon neutral.

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