

ABSTRAK

UMKM Zulpah batik saat ini masih menggunakan bahan produksi yang masih menggunakan zat pewarna kimia yang memungkinkan dapat merusak kepada kesehatan manusia dan ekosistemnya. Metode yang digunakan untuk menyelesaikan masalah yang ada adalah LCA. LCA (*Life Cycle Assessment*) merupakan metode yang digunakan untuk mengestimasi dan menghitung penggunaan energi, sumber daya alam pada lingkungan serta dapat mengevaluasi kemungkinan adanya perbaikan lingkungan. Tahapan dari proses produksi ini terdiri dari tahap pewarnaan, pelorodan, pencucian dan pengeringan, seluruh rangkaian proses di analisis setiap dampak yang ditimbulkan dengan bantuan *software* Simapro. Berdasarkan pengolahan LCA dengan bantuan *software* simapro didapatkan skenario pilihan adalah skenario tiga. Skenario tiga diperoleh adanya penambahan biaya pencelupan warna sebanyak delapan kali sehingga harga pokok produksinya menjadi Rp. 349.893 nilai tersebut jauh lebih efisien ditinjau dari dampak emisi dan kerusakan lingkungannya.

Kata kunci: LCA, batik, *eco-efficiency*

ABSTRACT

Micro, Small and Medium Enterprises Zulpah batik is currently still using production materials that still use chemical dyes that may be harmful to human health and their ecosystem. The method used to solve the existing problems is LCA. LCA (Life Cycle Assessment) is a method used to estimate and calculate the use of energy, natural resources in the environment and can evaluate the possibility of environmental improvement. The stages of this production process consist of coloring, curing, washing and drying stages, the entire process series is analyzed for each impact caused by the Simapro software. Based on the LCA processing with the help of simapro software, the preferred scenario is scenario three. Scenario three obtained an increase in color dyeing costs eight times so that the cost of production becomes Rp. The 349,893 values are far more efficient in terms of the impact of emissions and environmental damage.

Keywords: LCA, Waste Disposal, *Software* Simapro

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