"Raden Mas Prabu" and "Pesona Subang" Technology Innovation by Reusing Pineapple Leaf in Waste Management: Case Study in PT Pertamina EP Subang Field and PT Pertamina EP Prabumulih Field as PT Pertamina Hulu Energi Subsidiary of Upstream Pertamina

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Abstract

Introduction. At first, just the pines of the pineapple plant were harvested because they were the part of the plant that was regarded to have economic value. Pineapples can be grown and harvested, providing a source of revenue for farmers; in addition, both the pineapple fruit and its juice are essential to human nutrition. In addition to the volume of pineapples harvested, the amount of garbage that is produced is also a significant burden. Farmers would traditionally dispose of discarded pineapple leaves by burning them, but thanks to advances in science and technology, those leaves can now be used for something else. The fibres in the pineapple leaves are of a very high grade, and they can be extracted from the various leaf portions. Since ancient times, the fibres extracted from pineapple leaves have been included into the production of a wide variety of textile goods. When used as a material for fabric, ananas leaf fibre has the properties of being able to easily absorb moisture, being robust enough and not easily scratched, not being hot, and being able to absorb sweat; these traits are desirable. While the pineapple is being cooked, the leaves can be successfully peeled with minimal effort.

In Indonesia, pineapple leaf fibre is commonly used as a textile thread, and this practise is carried out at the community level in the context of textile manufacture. Many people still rely on manual processes despite the fact that the process of extracting pineapple leaf fibres requires sophisticated equipment. The older pineapple leaves are removed, and while they are still moist, they are put through a machine that crushes them into fibres. After this step, the fibres are washed, combed, and left to dry. After going through this process, the fibres that have been spun into threads are then separated from one another and linked so that they can be woven into fabric (Mampuk, 2020). There are two steps involved in the process of extracting the fibres from the pineapple leaf, and these are the raw fibres and the fine fibres. During the first stage of the process, known as extraction, the leaf is broken down mechanically using extractor tools in order to produce rough fibres. The extracted raw fibres are then subjected to further processing in order to be transformed into the fine fibre that is found in the pineapple leaf. It is first necessary to use a degumming instrument in order to extract the fine fibre from the pineapple leaf; this fibre is then chopped using a cutting tool.

Keywords:
Pesona Subang, Raden Mas Prabu, Pineapple Leaf Fiber, Technology Innovation.

Biographies
Ratnasari Putri Utami possesses a Bachelor of Social Science in Social Development and Welfare from Gadjah Mada University, where she is also pursuing a Master of Arts in Psychology. She has over five years of experience in the Community Development of Pertamina Eksplorasi Product Subang field Through her activities as a professional archer and counsellor for the Padepokan Perempuan GAIA and Perempuan Berkisah communities, she serves the greater community.
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Wazirul Lutfi holds B.E in Management Department and Master of Management in Sustainability of University of Trisakti. He has long outstanding experiences in Social Rist Assessment, so as he developed various CSR program in community development of PT Pertamina Hulu Mahakam, i.e. WASTECO, Karawang Berseri Zone 7, and Jejak Setapak Zone 7.

Mohammad Saddam Husen has long list experiences as Community Developmnet Officer PT Pertamina EP Prabumulih Field. He is alumna of Government & Politics Department Gadjah Mada University. He also expertise in social mapping of PT Pertamina RU II Dumai, PT PHE West Madura Offshore as his debut in CSR.

Erwin Hendra Putra hold Bachelor degree in Public Administration University of Sriwijaya. His expertise in Public Relation & Community Development/Senior Officer at Pertamina EP Prabumulih Field. He managed his career at sustainability/CSR/Community Development, particularly in Inovasi Sosial Lembak Desa Wisata Danau Shuji dan Burai Desa Wisata.

Hesty Apriani is Bachelor in Social Science, Communication Study Program, Universitas Indonesia. She has 10 years of experience in CSR area at PT Pertamina. Some of the work areas she has been involved in include CSR for Pertamina EP Field Prabumulih, Pertamina EP Field Tarakan, Pertamina EP Field Tambun, Pertamina EP Field Subang, Regional 4 Pertamina Subholding Upstream, and currently holds the position as CSR Officer at Subholding Upstream Pertamina (Pertamina Hulu Energi). She also holds several certification such as public relations certification from LSPR, innovator of The United Nations Global Compact (UNGC) accelerator for young professional, and Coordinator & Executor of Upstream CSR Taxonomy Book.