

## Zero mercury implementation management of artisanal gold mining at Geumpang Mountain, Pidie - Aceh, Indonesia

TEUKU ANDIKA RAMA PUTRA

Mineral Resources Engineering,  
School of Material and Mineral Resources Engineering, Universiti Sains Malaysia,  
14300 Nibong Tebal, Pulau Pinang, Malaysia  
Email address: teukuandika@usm.my

**Abstract:** Most of artisanal gold mining operations in the world are using mercury to extract gold including the traditional miners in Aceh. Gold extraction using mercury is simple, unfortunately mercury is a powerful neurotoxin that is harmful to people. The study reviewed and investigated the mine management and economics to support implementing zero mercury processes in order to comply with modern environmental standards, reducing mercury use while realizing the dream of traditional miners

by developing the wealth opportunities. There are a wide variety of zero mercury approaches to gravity concentration from basic such as panning and sluicing, to more complex such as centrifuges and shaker tables. Policy makers, miners and civil societies are three main stakeholders that have the important roles in the implementing. Planning, guide, decision and educational tool including system of graphics and explanation of barriers are all significant tools and methods in supporting zero mercury implementation.