PEMODELAN SISTEM DINAMIS PERTAMBANGAN EMAS RAKYAT MENUJU PERTAMBANGAN YANG BERKELANJUTAN. Studi lokasi Penambangan Emas Rakyat di Desa Kertajaya, Kecamatan Simpenan, Kabupaten Sukabumi, Jawa Barat. = SYSTEM DYNAMIC MODELLING OF COMMUNITYa'S GOLD MINING TOWARDS SUSTAINABLE MINING. Stiudy of small-scale gold mining at Kertajaya Village, Simpenan Sub District, Sukabumi District West Java.

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Abstrak

Di sektor Pertambangan Emas Skala Kecil umumnya peneliti memandang Penambang Rakyat dan aktifitasnya negative, menimbulkan permasalahan utama yaitu dari penggunaan Merkuri pada pengolahan material metode TM, tiadanya pemasukan bagi negara, pungutan liar dan kerentanan aspek K3. Selama ini terjadi pembiaran/ignorance oleh Pemerintah dan opsi penegakan hukum menghentikan aktifitas penambangan. Padahal fenonema umumnya, setelah penutupan, masyarakat kembali melanjutkan aktifitas penambangan, dan permasalahan kembali berlanjut, membentuk sebuah siklus. Kondisi ini terus terjadi selama beberapa dekade, dan menyebar luas di berbagai daerah, Bagaimana sesungguhnya kondisi sector ini? Layakkah sector ini didukung? Bagaimana opsi penanganan masalahnya? Penelitian bertujuan memetakan kondisi riil sektor ini, mensimulasi scenario pengolahan material tanpa Merkuri, dan merumuskan model ideal pertambangan berkelanjutan menurut Sustainable Mining Practices/SMP. Disusunlah model dasar dan matematis kondisi riil sektor, disimulasi skenario penggunakan teknologi pengolahan material tanpa Merkuri/DB dan status legal/illegal sebagai perbandingan. Dilakukan analisis perhitungan kelayakan ekonomi usaha dan profesi. Disusun kriteria dan indikator dasar penilaian keberlanjutan sektor pertambangan skala kecil, dan analisis kelayakan lain. Kemudian dirumuskan opsi terbaik penanganan masalahnya. Sektor pertambangan emas rakyat di Indonesia, digambarkan di lokasi penelitian: membentuk siklus Lingkaran Setan. Legalisasi dan penggunaan teknologi pengolahan Non Merkuri berperan kunci dalam solusi, dan lokasi penelitian dinyatakan layak untuk didukung

.....In the small-scale gold mining sector, researchers generally view Community Miners and their activities negatively, causing major problems, namely from the use of Mercury in the TM method of material processing, no income for the state, illegal levies and the vulnerability of K3 aspects. So far, ignorance has occurred by the Government and options for law enforcement to stop mining activities. Whereas the general phenonema, after closure, the community resumed mining activities, and the problems continued again, forming a cycle. This condition has continued for decades, and is widespread in various regions. How is the real condition of this sector? Is this sector worth supported? What are the options for dealing with the problem? The research aims to map the real conditions of this sector, simulate a material processing scenario without Mercury, and formulate an ideal model for sustainable mining according to Sustainable Mining Practices / SMP. A basic model and a mathematical model of the real conditions of the sector were compiled, a scenario of using material processing technology without Mercury / DB and legal / illegal status was compiled as a comparison. An analysis of the calculation of the economic feasibility of business and

profession is carried out. Formulated basic criteria and indicators for the assessment of the sustainability of the small-scale mining sector and other feasibility analyzes. Then the best option for handling the problem is formulated. The smallholder gold mining sector in Indonesia, is depicted in the study location: forming a vicious circle. Legalization and use of Non-Mercury processing technology plays a key role in the solution, and research sites are deemed worthy of support.