

**LOCAL KAOLIN MINING COMMUNITY AREA MANAGEMENT AND
REVEGETATION BASED ON LAND DEGRADATION PARAMETER IN
JETAK HAMLET, KARANGSARI VILLAGE, SEMIN SUB-DISTRICT,
GUNUNGKIDUL REGENCY, DAERAH ISTIMEWA YOGYAKARTA**

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ABSTRACT

Local Kaolin mining community in Jetak Hamlet, Karang Sari has been started since 1990. Traditional mining methods in this location is traditional (without the use of heavy equipment). The Purpose of the experiment refers to the problem is to calculate the level of land degradation and make the reclamation design.

Parameter that used in the calculation (land degradation level) are (1) mining border edge (2) height of excavating wall, (3) base relief of excavating (4) Soil Fertility, (5) excavated Top Soil Condition, (6) Vegetation Density, (7) Road Condition. soil samples were taken using purposive sampling method and analyzed with 10 parameters: texture, pH (H₂O), C-organic, N-total, Ca-dd, Mg-dd, K-dd, Na-dd, cation exchange capacity and Saturation Bases. The purposive sampling method that used for soil sample was based on mined and unmined area. The boundary of excavation area, the height of excavation wall, base relief of excavating, stripped top soil, and the road condition were obtained from the measurement in the field. Soil fertility level were obtained by laboratory test. Vegetation quantity on local Kaolin mining were obtained by quadratic method. Level of land degradation calculates with scoring method. The reclamation design for the area is refers to land degradation evaluation and Gunungkidul spatial plan (RTRW).

Based on field survey and analysis, the level of land degradation categorize as heavy degradation with score 18. Suggested reclamation design based on the evaluation are make terrace with 4 meters height and 2 meters width. Second Suggestion is make water drainage with base width (b) 0,029 m , slope off the channel (Z) 45°, top width (B) 0,096 m, channel base height (h) 0,034m, guard height (F) 0,0085m, and channel height 0,045 m. Planting methods use pots (30 x 30 x 30) cm to plant 56 trees of *Anacardium occidentale* with gap 6m x 6m as pioneer plant. Vertiver is use for cover crop vegetation

Key Words : Kaolin, Local Mining Community, Land Degradation