

## ASSESSMENT AND DEVELOPMENT SCHEME OF COAL MINING RECLAMATION IN EAST KALIMANTAN, INDONESIA

RINA KRISTANTI 5238110 ENRM/M

M.Sc. (NATURAL RESOURCE MANAGEMENT)

THESIS ADVISORY COMMITTEE: SURA PATTANAKIAT, Ph.D. (FORESTRY), SUVALUCK SATUMANATPAN, Ph.D. (ECOLOGY OF COASTAL MARINE SCIENCE), CHONGRAK WACHRINRAT, Ph.D. (FORESTRY)

### ABSTRACT

The objectives of this study were to develop a coal mining reclamation scheme based on the existing scheme implemented in Indonesia and assess the reclamation performance of Berau Coal Company (BCC) using both the existing and the developed scheme. A literature review, spatial data analysis, a field survey, and interviews were conducted to identify regulations on mining reclamation, to assess reclamation performance of BCC, and to propose criteria in order to develop the existing scheme.

Thirty multi-stakeholder respondents related with coal mining reclamation were interviewed to obtain proposed indicators and to validate the developed scheme. Results of the interviews were analyzed by applying a weighting-ranking score and analytical hierarchy process, while reclamation performance was analyzed using descriptive statistics and mapping.

Coal mining in Indonesia has been developing rapidly in the last seven years. Development of coal mining threatens production forest sustainability. Coal mining licenses overlap with 13% of total production forest area and 18% of it overlaps with forest utilization licenses.

From the policy review, it was identified that the government implements separated assessment schemes based on the purpose of the reclamation. The schemes are Decree No. 18 of 2008 concerning Reclamation and Mine Closure and Decree No. 60 of 2009 concerning Guidelines of Successful Forest Reclamation.

From the interviews, it was found that the indicators considered to develop the existing scheme consist of land management and soil conditions, reforestation, water conservation, and company commitment. The assessment result using the existing scheme is good and acceptable while the result using the developed scheme is that reclamation performance of BCC is good but has to be improved to obtain above 80 points to be accepted by the government.

**KEYWORDS:** INDONESIA / COAL MINING / PRODUCTION FOREST / FOREST UTILIZATION / RECLAMATION ASSESSMENT

145 pages