ABSTRACT

The Government of Indonesia (GoI) has demonstrated strong commitment in seeking to prudently manage the forest resources by issuing the Republic of Indonesia Law number 41/1999 in 1999. This is seen as a positive step in an improved commitment to environmentally sustainable use of forestry resources which have been exploited recklessly in past decade. The Law 41/1999, which aims to manage the forest resources of the country for the sake of current as well as future generations, designates all forested areas into three classifications according to their ecological function. The new forest classification under this new law, however, has created significant issues in some areas where the new designated functions of the forests are overlapping with other development activity, which have previously been endorsed by other regulation.

Currently, one hundred and fifty mining companies have in previous years been granted Contract of Work (CoW) to operate in areas that were later designated under this Law as protected areas. This new law compels the companies to suspend all activities as clause 38/4 of the law clearly prohibits mining with an open pit pattern in protected forests areas. Of these 155 companies, some three quarters (124 mining companies) still subsist due to the legal dispute. The seriousness of The Government in managing the nation’s forest resources is therefore being tested. The Government has to choose and foster the most desirable alternative and it need assessment tools such as Cost Benefit Analysis which allow it to make informed and justifiable determinations.

This study aims to assist in this regard. It seeks to assess which alternative is the most desirable to the society as a whole, a Cost Benefit Analysis (CBA) which is an important tool to assess and choose between two existing alternatives is therefore applied in this study. The following results are obtained from the analyses: (1) the NPVF which refers to the best estimation of net present value of mining activity without considering the ownership and environmental costs is US$ 369 million. This analysis assumed US$ 600 of capital cost and 1.5 US$ operating cost which has included administration, mining and processing costs. Metal prices in the analysis are US$ 3 and US$ 8 per pound nickel and cobalt respectively (2) the real benefit accrued to the Government of Indonesia from the mining activity (NPVI) is US$ 323.3 million, as the government will only be benefited from taxes and royalties. (3) The study further analyzed the net social benefits of the mining activity by analyzing the environmental costs that have to be borne by the society in order to obtain the benefits of the mining activity. The NPVE is estimated at US$ 220.1 million. The study believed that the NPVE is the net social benefits of mining activity (4) The threshold value which refers to the minimum value of preservation which grows at the average growth rate of annual benefit from preservation of 2.7% is estimated at US$ 12.32 million.

Considering the environmental services provided by the protected forest, this study concludes that the benefits of forest is expected exceed US$ 12.32 million. Should the forest be preserved to its natural condition, it will last for a potential infinite time and remain as a life support system for current as well as future generations. On the other hand, the benefits accrued from mining activities will last only for a 20-year period and with very limited additional benefits post mining operations.

The study therefore concludes that the forest preservation is more desirable than mining activity and recommends the decision maker to prompt forest preservation over mining.