Mining activities in the Philippines date back to the 16th and 17th centuries. It is an age-old industry, which has greatly contributed to the economic development of the country. In these modern times, most of the materials people use come from mining; from nails for construction to chips of computers and other valuable metal-made products. To date, mining operations still exist in the Cordillera Administrative Region (CAR) and continue to provide employment to the local populace. However, mining, particularly the open pit method, is considered a destructive activity. Disposal of toxic wastes in reservoir, irrigation systems, and agricultural lands is disastrous to the environment.

As embodied in PD 463 (Mineral Resource Development Decree) and the revised implementing rules and regulations of RA No. 7942, also known as the Philippine Mining Act of 1995, Section 169 on Environmental Protection and Enhancement Program (EPEP), the rehabilitation, regeneration, revegetation, and reforestation of mined-out and tailings-covered areas are required for socioeconomic development. Tangan (DENR-CAR) conducted a study to rehabilitate the mine tailings pond area No. 1 of PMC by using selected species of bamboo namely, ‘kauayan tinik’ (Bambusa blumeana), ‘bayog’ (Dendrocalamus merrillianus), and giant bamboo (Dendrocalamus asper). The data gathered were survival rate, growth performance, and number of shoots/culms.

Findings

- Of the three species planted to rehabilitate the mine tailings pond No. 1, ‘kauayan tinik’ and ‘bayog’ showed high survival rate of 99% and 97%, respectively. Giant bamboo had lower survival rate (72%), of which could be attributed to water logging during the rainy season.

- The mean height and diameter growth of kauayan tinik were 4.57m and 4.86 cm, respectively; while ‘bayog’ had 4.3m (height) and 4.41 cm diameter. Giant bamboo showed slow growth in the mine tailings pond compared with the other bamboo species. It attained an average height and diameter of only 2.08 m and 2.88 cm, respectively.

- ‘Bayog’ and ‘kauayan tinik’ showed better performance in terms of tolerating the unfavorable conditions of the soil due to low OM content and water logging/flooding in the area.

- The mean number of culms recorded were 26 for giant bamboo, 51 for ‘bayog’, and 52 for ‘kauayan tinik’. Analysis of Variance (ANOVA) showed significant differences among treatment means.
