



Thesis Abstract

An Analysis of the Environmental Impacts of the Proposed Oil Palm (*Elaeis guineensis* Jacq.) Plantation and Mill Project in Bukidnon, Philippines

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The study was undertaken to analyze the environmental impacts of the proposed 4,000-ha oil palm plantation and 10-t fresh fruit bunches hr⁻¹ processing mill project in Impasugong, Bukidnon, Philippines. Field surveys, sampling, GIS mapping, interview schedules, key informant interview, focus group discussion and secondary data gathering were conducted from April to November 2004.

The proposed plantation sites are situated in idle grasslands mostly with slopes of 18-30% and elevation of 600-800 masl. However, there are dipterocarp forests in the far north and northeast of the plantation sites. These forests are habitats of one endangered and two threatened faunal species. Moreover, most of the plantation and mill sites are located close to Tagoloan River and some of its tributaries. Biophysical characteristics of the project area are generally favorable for oil palm production except for slope of some plantation sites.

The insufficiency of basic social services, relatively low income of project and non-project participant-respondents, and their support for the project in spite of the inadequacy of consultations indicate that the project is essential for the socioeconomic development of the project area. However, the relatively high project development cost, competition from other vegetable oils, and possible occurrence of palm disease and fire in the project area may hinder the realization of potential project economic benefits.

If not properly managed, the project may adversely affect forests, wildlife, soils, hydrology, water and air quality, water and energy supply, health of plantation and mill workers, and existence of indigenous peoples in the vicinity of the project area.

The project can be managed sustainably through zoning of plantation and mill sites, phasing of plantation development, practice of zero burning, adoption of soil conservation practices, optimum and timely application of safe agrochemicals, recycling of water and energy, implementation of appropriate hiring policy, consultation with various stakeholders, active involvement of cooperating agencies, and adoption of appropriate occupational health and safety measures.