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## Landscape modeling for human – Sulawesi Crested Black Macaques conflict in North Sulawesi

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### Abstract

The main threat to the survival of Sulawesi Crested Black Macaques (SCBM) *Macaca nigra* in North Sulawesi is habitat destruction caused by land use change and illegal hunting. This threat has been escalated human – SCBM conflict such as crop-raiding. This study aimed to develop the probability of human - SCBM conflict model in North Sulawesi and to analyze the causes of conflict. This study was conducted in Tangkoko-Batuangus and Duasodara Nature Reserve. Main methodologies were combination between GIS modeling technique and binary logistic regression in order to obtain spatial model of probability human - SCBM conflict. The results showed the high, medium, and low probability conflict areas were covering 2008.5 ha (17.05%), 3621.7 ha (30.76%) and 6143.9 ha (52.18%), respectively. Environmental variables that affected the conflict were elevation of 400-800 m and natural forests. These variables were related to the main characteristic of the high intensity of human and SCMB daily activities areas.

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### 1. Introduction

Sulawesi is one of five main islands of Indonesia. There are 20 species of the genus *Macaca* in the world and 8 types of which are endemic to Sulawesi, one of which is the Sulawesi Crested Black Macaques (SCBM) *Macaca*

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