

Estimation of Taiwan's Forested Areas by Classified NDVI Maps from NOAA AVHRR Data

Gin-Rong Liu¹, Tang-Huang Lin², and Tsung-Hua Kuo³

ABSTRACT

The goal of this study is by applying NOAA AVHRR data in delineating NDVI maps throughout Taiwan, which can be utilized in the surveys of forested areas. Due to the frequent appearance of clouds, the composite NDVI maps were conducted in a monthly basis where the monthly and seasonal variations of the NDVI values around the mountainous areas were analyzed. The result showed that the total forest area assessed by the NDVI value reached 54.5%. This percentage was rather close to the surveys conducted on the surface, which was 58.5%, proving our procedure to be rather practical.

Keywords: NOAA AVHRR, forested area, NDVI map

¹ Professor · Center for Space and Remote Sensing Research/ Institute of Atmospheric Physics · National Central University · Chung-Li · TAIWAN

² Associate research engineer · Center for Space and Remote Sensing Research · National Central University · Chung-Li · TAIWAN

³ Ph. D. student · Institute of Space Science · National Central University · Chung-Li · TAIWAN