
USING LANDSAT TO DETERMINE THRESHOLDS OF REMOTE SENSING INDICES FOR EARLY DETECTION OF MINERAL EXPLOITATION IN LANGBIANG WORLD BIOSPHERE RESERVE, LAM DONG PROVINCE

Nguyen Hai Hoa¹, Phung Van Khoa¹, Le Van Huong², Le Van Son²,
Duong Trung Hieu³, Le Quang Minh², Nguyen Quang Giang⁴, Nguyen Huu Nghia¹,
Tran Thi Ngoc Lan¹, Nguyen Thi Thu Hien⁶, Vu Thi Thanh Hoa⁵

¹*Vietnam National University of Forestry*

²*International Center for Tropical Forest Research, Langbiang World Biosphere Reserve, Lam Dong*

³*North East College of Agriculture and Forestry*

⁴*Lam Dong Forest Protection Department*

⁵*Institute of Tropical Forest Research and Development*

⁶*University of Agriculture and Forestry - TNU*

SUMMARY

Using remote sensing data in constructing the status of natural resources maps, including forest and mineral maps as well as monitoring changes in extents of such resources has become common in Vietnam. The study has successfully constructed forest status with five Land use/Land cover types in 2017 in Langbiang World Biosphere Reserve, Lam Dong province. In addition, Albedo values in combination with NDVI were selected and calculated for deforestation sites due to mineral exploitation; the thresholds of early detection of mineral exploitation in Langbiang World Biosphere Reserve have been determined at accuracy values ranging from 56.0 ÷ 81.1%. For Albedo values, thresholds of early detection of mineral exploitation range from 0.083 ÷ 0.160; NDVI ranges from 0.202 ÷ 0.516. As field-based accuracy assessments, using remote sensing data (Albedo values together with NDVI) for early detection of mineral exploitation is reliable and applicable in Langbiang World Biosphere Reserve, Lam Dong.

Keywords: Albedo, change, forest land, GIS, Langbiang, NDVI, remote sensing.

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