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[ADVANCED](#)[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(1220K\)\]](#) [\[References\]](#)**Global Possible Land Cover Change Map Using 1981-2000 Time-series AVHRR/NDVI Data**Toshiyuki KOBAYASHI<sup>1)</sup> and Ryutaro TATEISHI<sup>1)</sup>

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**Abstract**

A lot of studies of global land cover map have been produced so far. However, there are only a few global maps representing the place and the time that large changes occurred. In this study, there were produced those areas where land cover changes may have taken place during the period between 1982 and 2000. These areas were extracted on the basis of NDVI temporal profiles derived from the NOAA-AVHRR data. Furthermore the difference in results by two types of NDVI data set was examined.

The method of producing these maps is as follows. Possible land cover change areas were extracted from the change of the annual mean of NDVI, the difference between its annual maximum and minimum values and its annual pattern. Years of land cover change were determined by large NDVI change during a certain year. In the mapping process potential land cover change was detected in the case that the NDVI value didn't recover to the previous level after it had changed. The NDVI change which was affected by the weather change or geometric misregistration was excluded from land cover change. As a result, a possible land cover change map was produced which shows large vegetation change such as the transformation of the desert to cropland, the deforestation for cropland or disappearing of wetland.

Keywords: NOAA-AVHRR, global map, land cover, vegetation change

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