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ACRS 2020 - 41st Asian Conference on Remote Sensing • 2020 • 41st Asian Conference on Remote Sensing, ACRS 2020 • Deqing City, Virtual • 9 November 2020 through 11 November 2020 • Code 169013

Document type

Conference Paper

Source type

Conference Proceedings

ISBN

978-171382908-9

Publisher

Asian Association on Remote Sensing

Original language

English

View less ^

Distribution of rubber plantation at surat thani using remote sensing

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Abstract

In Asia, to be specific Southeast Asian region, countries like Malaysia, Thailand and Indonesia have dominated global rubber cultivation over the last five decades. Rubber tree is one of the major crop and serves as the important commercial crop apart from oil palm plantation. Thailand has been the world's leading rubber producing country since 1995 compare to Malaysia and Indonesia which with an annual increase of four to seven percent per year. The rubber plantations started to expand in the eastern and north-east region of Thailand. In Thailand, rubber production has their own important towards socio-economic. Rubber have become the most cash crop due to its productive value, income from export and job opportunities. The rubber trees are dominantly distributed in Surat Thani provinces. At present, the rubber sector encounters lack of demand and large supplies rubber stock. Natural rubber

being replace with synthetic rubber. The price of natural rubber in market also decreasing. To curb the problem, most of rubber plantation holder start to replace their crop to more profitable crop. The changes occur rapidly and lead to massive bare land in the province which in the same time lead to temperature rising. This study is aimed to analyse the spatial distribution of rubber plantation for 2007, 2014 and 2019 in Surat Thani, Thailand. Geospatial data from remote sensors are used to deal with the time and labour consuming problem due to the large spatial coverage and the need of continuous temporal data. Remote sensing images that been used in this study is a Landsat 5 Thematic Mapper (TM) and Landsat 8 Operational Land Imager (OLI) and Thermal Infrared Sensor (TIRS). The image from optical sensor was used to sense the land cover and further classified for rubber plantation land cover changes. The research has proved that by using remote sensing images showed that specific area of rubber plantation experienced gained, loss and remained unchanged between a desired period. © 2020 ACRS 2020 - 41st Asian Conference on Remote Sensing. All rights reserved.

Author keywords

Landsat; Rubber plantation; Surat Thani

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