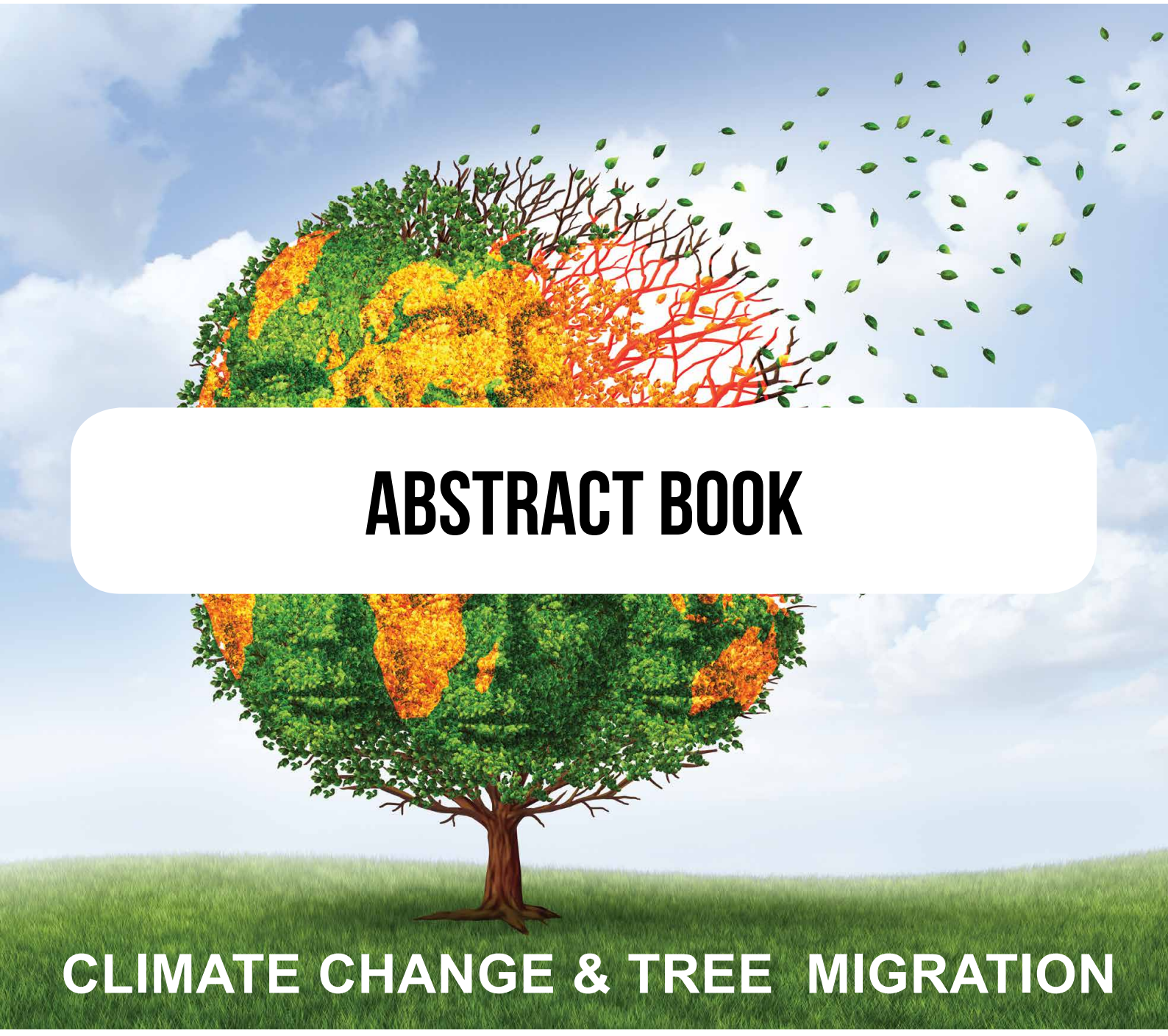
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ABSTRACT BOOK

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Oral Presentation

Visibility Analysis of Fire Watchtowers Using GIS; A Case Study of Dalaman State Forest Enterprise

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Abstract

The determination of the forest fires as quickly as possible and accurately their location is very important for fighting forest fires. Therefore, fire watchtowers should be located on high peaks where watchtower staffs are able to watch most of the forest areas. In this study, Dalaman State Forest Enterprise was selected as first-degree fire-prone region, and visibility analysis has performed to fire watchtowers network. With Visibility Analysis using Geographic Information Systems (GIS), the location of each watchtower was evaluated separately and visible forest areas monitored by fire watchtowers were identified. The results showed that 49.2% of forest area could be observed by fire watchtowers. In order to increase this percentage, new fire watchtowers could be added or inactive fire watchtowers could be moved to suitable locations.

Keywords: Fire watchtower, Visibility analysis, GIS.