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Conflict, Narratives and Forest Fires in Eastern Turkey

Within Turkey, claims of an increasing number of forest fires ignited by the Turkish military to ‘strategically degrade the environment’ broke out after the Turkish-Kurdish peace process ended in 2015. These claims are built on little evidence, and fire occurrences are not well documented. Yet, the issue has gained attention through the news and social media in recent years. The lack of objective, scientific, data presents a need for a quantitative assessment of these fires in the context of conflict and political instability. Modern techniques in remote sensing and GIS can be used to retrospectively account for these fires.

This MSc thesis project aims to explore the ‘usefulness’ or accuracy of techniques in remote sensing and GIS to characterize and account for fires within Turkey remotely, as well as to assess the link between political instability and fires. The fire and conflict data are assessed and analyzed with respect to the ongoing narratives and the more recent events of the PKK-Turkish War from the early 2000s to 2018. The research is conducted using a multi-temporal/multi-scale approach involving quantitative analysis to address the aim.

The thesis shows how modern techniques in remote sensing can be used in the characterization of fires retrospectively. The results of the research determine that remote sensing fire products are useful for detecting fires within Turkey at a high accuracy (i.e., > 90% overall accuracy). This objective, scientific data, contributes to quantitative statistical assessments of these case studies to better understand the link between political instability and fires. The statistical assessments determined an association between the fire and conflict data, suggesting there is a significant relationship between number of fires in conflict zones and political instability in Turkey. Furthermore, while the cause of the fires is still unknown, the remote sensing data partially supports the local people’s claims that forest fires are occurring in Tunceli Province and have increased after the year 2015.

Keywords: geography, wildfire, warfare ecology, burned area, fire detection, multi-temporal analysis, quantitative assessment, Tunceli, Turkey

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