

USING LANDSAT DATA TO MONITOR CHANGES IN SURFACE TEMPERATURE AND PROPOSE MITIGATION SOLUTIONS IN CHUONG MY DISTRICT, HA NOI DURING PERIOD OF 2000- 2015

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Summary

Findings of multi-temporal Landsat data to quantify the changes in the surface temperature in Chuong My district during the period of 2000 - 2015 show that there were strong variations in the temperature surface and most of its temperature across the studied areas rose above 2⁰C, particularly the total area with temperature increase above 3⁰C during the period of 2003 - 2015 accounted for 1424.0 ha, which were much greater than the period of 2000 - 2003 (453.1 ha). In addition, the analytical results show that there is a strong relationship between changes in surface temperature and the variation in land use and cover in both periods, including the conversion of agricultural land into lands for industrial and residential purposes. In fact, the period 2000-2003 shows that there is 327.0 ha of land converted to the business, industrial land and residential purposes; the period of 2003- 2015 also was experienced with continued further decline of agricultural land (65.7 ha) and an increase in industrial land (65.2 ha). This consequence of urbanization and industrialization process has led to land use and land cover change in the study area. Based on the research findings, the study presents some suggestions and solutions to minimize the negative impact of urbanization process and land use conversion, including planning solutions and legislation, planning focused solution and green solutions.

Keywords: *Changes, surface temperature, multitemporal landsat, land use, land cover.*