

# Application of Remote Sensing, GIS and Topographical Data for Establishing Soil Erosion Map

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**Key words:** Cartography; Remote sensing; Remote sensing; Geographic Information System; RUSLE; soil erosion

## SUMMARY

Soil erosion is estimated using the RUSLE model. The factors of RUSLE are R, K, LS, C and P. The C factor definition is based on the field survey about the detail types of land use for each land unit and the total of months in the year with the highest tree canopy density. The P factor is determined according to the types of support practices, slope, land use. In particular, the types of support practice are defined in the field. The processes to define C and P are time-consuming and costly hence it is difficult to apply in the large areas. In the scope of this paper using VNREDSAT-1 imagery to define C and P to solve those above problems. Combination of the calculated C and P with the R, K, LS factors which are produced from the data of climate, topography, soil, and land use to establish soil loss caused by rainfall in Uong Bi city, Quang Ninh province. This is a product of State-level scientific researching and technological developing project, coded BDKH.10/16-20 under Program "Science and technology respond to climate change, natural resources, and environment management, phase 2016-2020".

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