INDEX OF FIELD SURVEY OF THE TERRITORY FOR MEDIUM-SCALE MAPPING

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The quality of thematic mapping mostly depends on the representativeness of the field survey of the territory. In large-scale mapping geostatistical techniques can be used to design survey spatial sampling. In medium-scale mapping, the sampling scheme is traditionally based on experience, common views about the thematic diversity of the territory and available cartographic data. In the digital mapping of thematic variables secondary data is used. There are mainly remote sensing data and derivatives of a digital elevation model. Spatial extrapolation of thematic information of points is somehow connected with the use of distance measures between studied and unstudied points in the space of secondary variables. This measure is proposed to be used as a numerical measure of the survey quality of the entire mapping space. This article provides numerical experiments to illustrate the behavior of this index, as well as proposes possible ways of using the index to control fieldwork in order to improve the spatial model of thematic variables.

Keywords: digital cartography, field survey, remote sensing data, spatial modeling, thematic mapping, sampling design, quality control

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