

HOW COMPLEX CAN A LAND SUITABILITY MAP BE?

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Abstract

On a land suitability assessment map that is derived from an overlay of n parent maps, each bearing k land capability categories, how many permutations of land suitability scores can there be when the scores are calculated by the commonly used rating and weighting method? In this paper, we estimate that this number is between $k^{\frac{n(n-1)}{2}}$ and $k^{n+1}/(k^n!k^{n-1}!\cdots k!)^{k-1}$.