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## Creation of New Global Land Cover Map with Map Integration

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### ABSTRACT

We present here a new approach to the development of a global land cover map. We combined three existing global land cover maps (MOD12, GLC2000, and UMD) based on the principle that the majority view prevails and validated the resulting map by using information collected as part of the Degree Confluence Project (DCP). We used field survey information gathered by DCP volunteers from 4211 worldwide locations to validate the new land cover map, as well as the three existing land cover maps that were combined to create it. Agreement between the DCP-derived information and the land cover maps was 61.3% for our new land cover map, 60.3% for MOD12, 58.9% for GLC2000, and 55.2% for UMD. Although some of the improvements we achieved were not statistically significant, this project has shown that an improved land cover map can be developed and well-validated globally using our method.

### KEYWORDS

Global Land Cover Map, Map Integration, Validation

### Cite this paper

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