Thickness of superficial deposits in Finland

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A superficial deposits thickness map database was produced by Geological Survey of Finland. It represents the loose Quaternary deposits thickness over the bedrock. The overburden thicknes is typically only some meters in Finland.

The Map Database will be used in several applications including geoenergy surveys (underground thermal energy), engineering geology for urban planning and environmental research.

The thickness of superficial deposits is based on direct and indirect bedrock elevation observations from the databases of Geological Survey of Finland. In addition, the database of the national borehole register (Pohjatutkimus-rekisteri) has been used. Data has been interpolated to raster grid with a cell size of 500 m by 500 m. This grid layer has been combined with bedrock area (outcrops and thin overburden) polygons from 1:200 000 scale Quaternary geology map and superficial deposits polygons from 1:1 000 000 scale Quaternary geology map. The latter have been classified into depth classes of typical values for each superficial deposit type in different regions of Finland.

The resulting raster image shows thickness of superficial deposits classified into five classes: < 1m, 1–10 m, 10–30 m, 30–50 m and > 50m.

The Map Database is intended to provide regional, generalized and averaged information. It is not intended to be used at a higher resolution, for example for a site-specific evaluation overburden thickness.

Raster image (.jpeg) is available to download at the website of Geological survey of Finland http://hakku.gtk.fi/

References:

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