This methodological explanation refers to the layers of Land Use database, available at <u>https://rkg.gov.si/arhiv/RABA/?C=N;O=D.</u>

Purpose of the data:

The Land Use database (hereinafter referred to as the LU DB) is a national record of land cover / land use. Its primary purpose is to determine the land cover / land use in high scale to be applied as a control layer for implementation of measures of the common agricultural policy of the European Union (hereinafter referred to as the EU CAP). Moreover, LU DB data are directly or indirectly used for certain cadaster related, taxation related and social policy related purposes and for statistical analyses and research. The delineation of forest areas is coordinated with Slovenian Forest Service (SFS).

Data acquisition and methodology:

LU DB data sources are computer-assisted photo interpretation of digital orthophoto and, to a lesser extent, of satellite imagery, field measurements (AAMRD, MAFF, IAFHF) and third party information. On average, LU DB in about one third of the territory of the Republic of Slovenia is updated annually. LU DB data capture/delineation is carried out in accordance with Rules on Land Use database (http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV9267) and detailed instructions for LU DB delineation (Interpretation key, available at http://rkg.gov.si/GERK/). Interpretation/update of LU DB consists of two phases. The polygons are first inspected by interpreter and then reviewed by manager.

Attributes:

- RABA_PID LU DB layer polygon ID,
- RABA_ID LU DB land cover class code,
- D_OD date of the last change or review of LU DB layer polygon,
- USER_ID ID of a LU DB interpreter or manager, who made the last change or review of a LU DB polygon,
- USER_ID_ZAJEM ID of a LU DB interpreter, who made the last change or review of a LU DB polygon (usually a change in the first level of interpretation),
- MANAGER ID of a manager, who reviewed a LU DB polygon (review made within second stage of interpretation control, or review based on other data sources),
- STANJE polygon status; Upd = polygon has not yet been marked as inspected in the first update phase, End = polygon has been marked as inspected in the first update phase (first update phase completed),
- VERIFIED information on the status of the polygon in the second phase of update = in the control / post-production phase; OK = update completed.

RABA_ID attribute code list:

RABA_ID	DESCRIPTION
1100	Arable land
1160	Hop field
1180	Permanent crops on arable land
1190	Greenhouse
1211	Vineyard
1212	Nursery
1221	Intensive orchard
1222	Extensive orchard
1230	Olive grove
	Other permanent crop
1300	Permanent grassland
	Swampy meadow
	Overgrown agricultural area
	Forest plantation
1500	Trees and shrubs
	Uncultivated agricultural land
	Forest trees on agricultural land
	Forest
3000	Built-up area and related surface
4100	Swamp
4210	
	Other marshy area
	Dried open area with special vegetation
-	Open area with little or no vegetation
7000	Water

Methodology inconsistences between data sets:

The application of LU DB time series has certain limitations, deriving from methodology changes in the past. These facts have to be accounted for when using the data. In this context, the following methodological changes, which affect particularly the older data sets, are the most crucial:

- certain land use classes have been abolished or added,

- the minimum mapping unit area has changed,

- the general rules (instructions for delineation and identification of features) for certain land use classes have changed, though the names and the codes of the classes remained the same.

The reasons for most of the methodology changes were adjustments of LU DB to the needs of RS regarding the EU CAP, which initially was and still is the main purpose of LU DB.

Methodology changes can be identified by comparing older and newer versions of Rules on Land Use database and Interpretation key (all available only in Slovenian language). A detailed review of the LU DB methodology changes was made by Tamara Klar in her bachelor's thesis entitled "Studying the impact of the data acquisition methodology concerning actual land use on the changing of land use surfaces between 2002 and 2016 in Slovenia". The document is available at https://repozitorij.uni-lj.si/lzpisGradiva.php?id=88062&lang=slv&prip=dkum:10926547:d1 (Slovenian language only). Parts of the text relating to the use of LU DB 2009 layer were written on the basis of different (several months newer) LU DB 2009 layer, than the one that is currently available at http://rkg.gov.si/GERK/.

Information regarding archive data:

On the website <u>https://rkg.gov.si/arhiv/RABA/?C=N;O=D</u> archive data LU DB is available. First version od LU DB is from 2002. From 2006 to 2014, several annual versions of LU DB are available. From March 2015 onwards, monthly versions of LU DB data are available.

The data on specific date represents the state of LU DB on that particular date and is not neccesarily the same as the situation on field. LU DB is updated in accordance with the procedure described above and LU DB, therefore is DB is updated within couple of years since the change in field. Some areas of the same LU DB dataset can be therefore based on orthophoto that is 3 years old, while in other areas in the same dataset can be based on orthophoto that is a few months old or even a field visit conducted a few days ago.

LU DB is commonly used for reporting the area of certain land use types or groups of land use types. Most often, the version of data on June 30th of the current year is applied to report the relevant areas for the previous year. The reason for such delay are the update procedures and update coordination with SFS.

Data up to and including 2018 are in the D48/GK coordinate system. Data since January 2019 are in the D96/TM coordinate system. Not all archived data contains all the attributes listed above.

Further information:

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