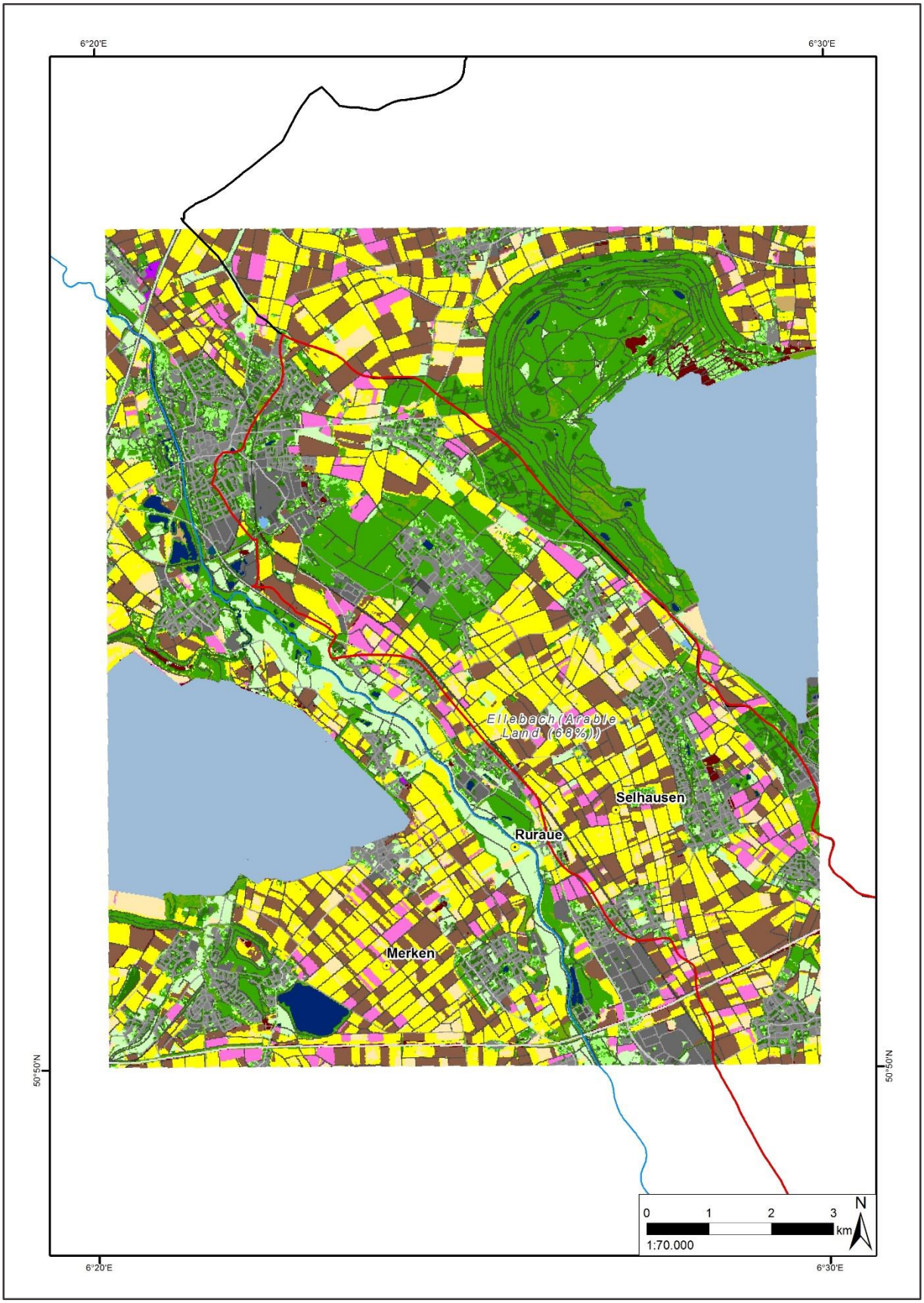
Documentation –Enhanced land Use Classification 2013 of the CRC/TR32 measurement region Selhausen/Merken.

	Note: **By downloading this dataset you accept adequate reference in case this data will be discussed or used in any publication or presentation. In this case please use the following citation:** **Lussem, Ulrike; Waldhoff, Guido (2013): Enhanced land use classification 2013 of the CRC/TR32 measurement region Selhausen/Merken. CRC/TR32 Database (TR32DB). DOI: 10.5880/TR32DB.8**
Content	
files:	data lu13_Selhausen_enhanced.tif lu13_Selhausen_enhanced.tfw lu13_Selhausen_enhanced.txt [land use dataset as ascii file] lu13_Selhausen_enhanced.prj documentation this file Read_Me.txt Legend_LU13n.txt
data size:	1 MB (3.19 MB unzipped)
extend:	Research Center Jülich – Merken - Selhausen
provider:	Z1 (G. Waldhoff)
language:	english
date of publication:	09/2013
date of purchase:	/
Description	
description:	This data set contains the enhanced land use classification of 2013 for the measurement region Selhausen/Merken of the study area of the CRC/Transregio 32: "Patterns in Soil-Vegetation-Atmosphere Systems: monitoring, modelling and data assimilation", which corresponds to the catchment of the river Rur. The study area is mainly situated in the western part of North Rhine-Westphalia (Germany) and parts of the Netherlands and Belgium, covering an area of approximately 2365 square

	kilometers. The land use classification is derived from supervised remote sensing data analysis using ASTER. For the land use analysis a dataset of the following acquisition date was employed: 19. May. The Error Matrix (see below) provides an overview of the accuracy of the land use analysis. To enhance the information content of the land use data product, the Multi-Data Approach (MDA) was applied to combine the remote sensing derived land use information with additional data sets like the 'Authorative Topographic-Cartographic Information System' (ATKIS Basic-DLM, AAA schema) and 'Physical Block' information. This dataset contains more information derived from ATKIS to reduce misclassifications compared to the first dataset of 2013 of the measurement region Selhausen/Merken. The methodology of the MDA is described in more detail in Waldhoff & Bareth (2008) and in Waldhoff et al. (2012). The classification is provided in GeoTIFF and in ASCII format. Spatial resolution: 15 m; Projection: WGS84, UTM Zone 32N. References: Waldhoff, G. & Bareth, G. (2008): GIS- and RS-based land use and land cover analysis: case study Rur-Watershed, Germany. - Proc. SPIE 7146, Geoinformatics 2008 and Joint Conference on GIS and Built Environment: Advanced Spatial Data Models and Analyses, 714626 (November 10, 2008); doi:10.1117/12.813171. Waldhoff, G., Curdt, C., Hoffmeister, D. & Bareth, G. (2012): Analysis of multitemporal and multisensor remote sensing data for crop rotation mapping. - ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., I-7, 177-182, doi:10.5194/isprsannals-I-7-177-2012. Acknowledgements: We thank the German Aerospace Center (DLR) for the provision of data from the RapidEye Science Archive and Geobasis.NRW for the provision of the ATKIS-Basic-DLM.
abbreviations used in data:	/

Example



Coverage of the Enhanced land Use Classification 2013 of the measurement region Selhausen/Merken

Error Matrix for the Land Use Classification 2013 of the measurement region Selhausen/Merken

		Referencedata (Percent)										
	Class	R	CT	DT	IS	WW	WB	SC	BG	Total	CE (%)	UA (%)
Classification (Percent)	R	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.12	0.00	100.00
	CT	0.00	100.00	0.00	1.30	0.00	0.00	0.00	0.00	3.09	1.18	98.82
	DT	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	10.67	0.00	100.00
	IS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	WW	0.00	0.00	0.00	0.00	97.19	38.34	0.00	0.00	34.98	20.71	79.29
	WB	0.00	0.00	0.00	0.00	2.81	61.66	0.00	0.00	12.45	6.43	93.57
	SC	0.00	0.00	0.00	0.00	0.00	0.00	99.81	0.00	19.4	0.00	100.00
	BG	0.00	0.00	0.00	98.7	0.00	0.00	0.19	100.00	7.28	38.50	61.50
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
	OE (%)	0.00	0.00	0.00	100.00	2.81	38.34	0.19	0.00		OA(%):	89.1154
	PA (%)	100.00	100.00	100.00	0.00	97.19	61.66	99.81	100.00		Kappa:	0.8654

Abbreviations: R = Rapeseed; CT = Coniferous Trees; DT = Deciduous Trees; IS = Impervious Surface; WW = Winter Wheat; WB = Winter Barley; SC = Summer Crops; BG = Bare Ground.

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