



S02.04-P -5

CONVERTING THE LEGEND OF THE SOIL MAP OF BELGIUM INTO THE WORLD

REFERENCE BASE FOR SOIL RESOURCES: (I) LESSONS FROM CORRELATING NATIONAL SOIL SURVEY DATA TO AN INTERNATIONAL SOIL CLASSIFICATION SYSTEM

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Soils in Belgium were mapped between 1947 and 1991 and published at a 1:20000 scale. These maps are used in land consolidation projects and for assessing soils' vulnerability to erosion and pollution. Integration of land-use and environmental policies within the European Union however requires a harmonization of different national soil classification systems. With the World Reference Base for Soil Resources (WRB) as common classification system within the Union, the authorities of Flanders and Wallonia commissioned a study to elaborate a methodology for converting the Belgian soil legend into WRB. The Belgian legend is based on field properties such as texture, drainage status and profile development. The WRB classification is based on diagnostic features defined by morphological, physical and chemical properties. A key and software programme have been developed to convert the Belgian units into WRB units. However, as many Belgian units could not unequivocally be translated into WRB units, additional guidelines had to be derived based on soil survey data classified according to WRB. The data show that principles of the legend shifted over time or were interpreted differently to take regional specificities into account. To overcome resulting ambiguities it is proposed to establish a database of reference soil profiles. Whereas, overall WRB is satisfactory for classifying soils at national level, the experience also shows that some WRB concepts may benefit from revisions to facilitate its correlation with national soil survey data.