

Classification of urban and industrial soils in the World Reference Base for Soil Resources

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Abstract

At the SUITMA 2003 meeting in Nancy (F), the Soils of Urban, Industrial, Traffic and Mining Areas (SUITMA) working group of the International Union of Soil Science (IUSS) agreed to prepare a unified proposal for modifications of the World Reference Base for Soil Resources (WRB), which is the soil classification system endorsed by the IUSS. A working document was presented and discussed at these meetings. Written comments were then solicited and received from several active workers in this field, and on the basis of these a new document stating the several possibilities was prepared and sent as a circular letter to all active workers in this field. Here we report on the results and make a definite proposal to the WRB committee.

Proposals were evaluated according to the utilitarian principle for soil classification proposed by Cline, namely that the best classification is that which creates groups about which the “greatest number, most precise, and most important statements can be made” for one or more specific objectives, which in this case are those stated by the WRB: to provide a framework for discussing world soil geography; to provide a legend for small- to medium-scale soil maps of countries, regions, and the world; and to provide a common language for correlating soil studies and national mapping systems at a general to semi-detailed level.

In addition, other principles of the WRB were respected: classification based on soil properties defined by diagnostic horizons and characteristics, by preference with a field expression; and diagnostic properties somewhat stable in time and significant for soil management. These restrictions mean that not all properties of urban and industrial soils can be specified within the WRB, even at the second classification level; it is suggested that local forms and series be established for this level of detail.