Design of a soil information system for D.R. Congo
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Introduction

Given the economic importance of agriculture in the Congo Basin, there has always been a great need for soil information. A multitude of soil survey data were collected in the D.R. Congo from 1935 till the 90s. However, since 1960, during the major events and subsequent periods of instability that took place in D.R. Congo, a major part of the legacy soil data was lost. Other data were not easily accessible as they were not published. This poster illustrates (1) the digital soil information system using legacy soil data collected from 1935 until present, and (2) the SOIL and TERRain (SOTER) database of D.R. Congo. Both soil information systems can be consulted online.

Digital Soil Information System

Geographic completeness

<table>
<thead>
<tr>
<th>Scale range</th>
<th>Small-scale</th>
<th>Medium-scale</th>
<th>Large-scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1:500,000 – 100,000)</td>
<td>10</td>
<td>5</td>
<td>Nioka, Maniema, Ruzizi</td>
</tr>
</tbody>
</table>

Online consultation of maps

(1) Selecting a region at welcome screen

(2) View metadata and map layout

(3) Zoom to detail

www.labssoilsience.ugent.be/Congo

Soil profile database (analytical data)

N° of profiles: 231
N° of horizons: 1311
+ analytical data of various reconnaissance and semi-detailed surveys (e.g. Lower Congo survey: Baert, 1991)

Applications – Future needs

The SOTER map constitutes the most detailed region-wide coverage of the soils of D.R. Congo. It integrates all information on the soil-terrain relationship in a ready-to-use format, available to potential users and compatible with other environmental databases. The soil information system provides inputs in a large number of applications such as land evaluation for food and industrial crops in different agro-ecological zones of D.R. Congo, investigation of soil hydraulic properties, modeling of carbon sequestration, ....

Addition of legacy soil profile data collected during the various surveys as well as newly collected analytical soil data will allow a further development and updating of the digital soil information system of D.R. Congo.

References

