Supporting Decision Making at the Regional Scale;
An approach to put soil information in a stakeholder context

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Decision making at the regional level requires information that includes tradeoffs between
different economic and environmental objectives. Soil evaluation at the regional scale has
nowadays moved beyond the stage of static representations in terms of suitabilities to the
stage of scenario development. Agronomic simulation models used for these scenarios can
potentially be linked to other economic and environmental models. For an effective
communication of these scenarios to stakeholders, indicators need to be identified that
condense the information in quantifiable measures. Examples are the concentration of agro-
chemicals in the groundwater, economic returns or the degree of soil erosion.

Stoorvogel et al. (2004) presented a methodology for an integrated analysis of tradeoffs
between economic and environmental indicators. This Tradeoff Analysis Methodology, in
which agronomic, environmental and economic models were linked, has now been applied in
different regions all over the world. Outcomes of the analyses have been presented in tradeoff
curves, risk diagrams or maps and have been discussed with stakeholders.

Evidently, the Tradeoff Methodology itself is also subject to tradeoffs with respect to the use
of financial resources and the quality of the outcome. Financial and data constraints ask for
decisions that need to be made such as selecting the appropriate models and the need for
additional surveying. These decisions need to be evaluated with respect to the questions that
are asked by policy makers and regional representatives.

The TOA methodology uses data on soils, climate and socio-economic parameters. For soil
data, Minimum Data (MD) approaches have been developed that closely approximate
approaches in which elaborate techniques are used. We have implemented an MD approach
for the different regional studies and have found these to be well applicable in some cases.
We will present a transparent step-wise approach to assist in deciding whether an MD
approach is potentially suitable.

- Stoorvogel, J.J., Antle, J.M., Crissman, C.C. and Bowen, W., 2004. The
  Tradeoff Analysis Model: Integrated Bio-Physical and Economic Modeling of
- www.tradeoffs.nl