Analysis of the information and data requests to a national soil data centre

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Abstract
The InfoSol unit of INRA (French National Institute for Research in Agronomy) in Orleans serves as the organization managing data on soil for all of France. Several hundred requests for information reached the InfoSol Unit in each of the past few years. We developed a hot-line system and a database recording all the requests, their origin, the data needs, and the response that were made. Analysis of these data shows a large variety of requested information from various sources. The request point out that end-users often lack data, and sometimes, lack a good understanding of soil databases. The most important threats were contamination, erosion and soil organic carbon decline. Soil acidification appeared to no longer be a priority. We observed a lack of awareness on topics such as soil sealing and soil compaction.

Key Words
Soil, communication, data request, information, hot-line.

Introduction
Information on soil may is requested by numerous people having various concerns about soil use, soil quality and impacts of soil on the other environmental components. Therefore, it is useful to get an overview of the kind of questions that may be addressed to a national soil information agency, and to analyse how these questions are answered. Important issues may include i) the origin of the request, ii) how to classify the data requests according to their topic of interest, the kind of data, the ability to provide a quick answer, etc. In this paper, we review ca 400 requests that came to our national institute from mid 2008 to end of 2009.

The French national unit for soil mapping and monitoring
This InfoSol Unit belongs to INRA, and is part of the Environment and Agronomy department. INRA is the leading European agricultural research institute and one of the foremost institutes in the world for agriculture, food and the environment. The InfoSol INRA team has a wide experience in soil data handling and processing. It is responsible for the constitution of the soil information system for French soils and involved in several European projects linked to soil monitoring and modelling (Arrouays *et al.* 2009). It is identified as the national counter or box-office for soil information (www.gissol.fr).

Results
Requests were received either by phone call, or e-mail, surface mail or FAX. All the requests received by InfoSol were stored in a database. Requests are received at a mean rate of about 1 per day and address a lot of topics (Figure 1). Many of the questions are linked to the different threats to the soil (CEC 2006; decline in organic matter, soil erosion, compaction, salinisation, landslides, floods, contamination, sealing). Policy decisions and laws on the environmental protection generated a lot of requests on soil characteristics. Using this database we can see directly the impact of some policies on the need for taking into account soil characteristics.

Environmental policies on wetlands and soil erosion protection generated numerous requests. A large variety of technical products were requested, from published maps in paper or digital format to large databases access, or even for new modelling of soil processes. The time between the data request and the answer was also registered and analysed in terms of reactivity. On average, requests were answered after less than 5 days. Spatial coverage ranged from point data to the entire national territory. The origin of the demands ranged from individual people to national or European organisms.

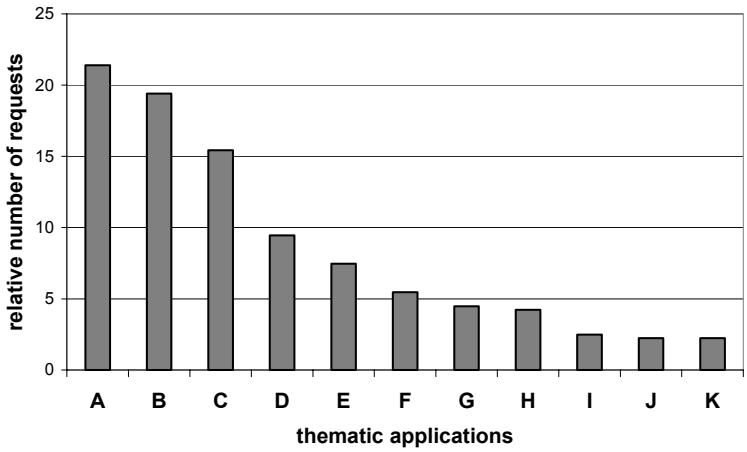

Figure 1. Classification of the requests according to their thematic application: A) water protection, B) soil protection (erosion), C) soil and human health, D) suitability for crops, E) land use planning, F) biodiversity, G) greenhouse gases, H) wetland protection, I) geotechnical purpose, J) terroir and quality of products, K) manure, composts and sludge

Conclusion

Despite being a fundamental resource that supports all life on Earth, soil often falls well below the radar as an important environmental issue. However, we show that requests on soil are becoming more and more numerous and that soil databases are going to become more and more necessary. There is a need to develop simple soil quality indicators and to make them easily understandable and available.

References

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