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## Editorial

Over the last decades an increasing amount of microbial and hydrochemical data has been generated about the processes taking place in the subsurface, especially in combination with pollution at the surface caused by human intervention. Among the more important processes are the bioconversions that are driven by the existing redox conditions in the environment. Present subsurface redox processes drive biodegradation, while biodegradation in turn can be the cause for development into a different redox environment.

The selection of papers in this special issue illustrates the state of the art in knowledge about "Soil biodiversity and agricultural practices" and "Ecotoxicology, soil leachates and remediation". These papers were presented on the first day of the OECD (Organization for Economic Co-operation and Development) sponsored satellite meeting of the 9th International Symposium on Microbial Ecology (ISME-9) on 27 & 28 August 2001 in Amsterdam (The Netherlands). The satellite meeting was entitled "Resilience of the subsurface ecosystem to anthropogenic disturbances".

The second day of this meeting addressed the topic "Present and future applications". It began with short presentations by environmental advisory agencies and representatives of Ministries for the Environment from Australia, Belgium, Germany, Italy, The Netherlands and the United Kingdom. This was followed by a roundtable discussion about "Implications and advice to policy makers in national governments".

The most important conclusions from the roundtable discussion were that (1) at the research level it is extremely important to integrate hydrogeochemistry with molecular microbial ecology and (2) countries have different legislations and/or goals for achieving remediation of polluted sites. Concerted actions

that could be carried out include definition of standard operation proceedings (SOPs), and a jointly financed 'Environmental specimen bank'. When combined with a new database on environmental data, this specimen bank will constitute a solid basis for a new integrative bioinformatics approach to ecosystems, quite in line with the integrative bioinformatics of living cells.

Coincidentally with this meeting the KNAW (Royal Dutch Academy of Sciences) started an exploration of the existence of and possibilities for national and international cooperation in Biogeology. Also this exploration emphasizes the importance of close interdisciplinary cooperation between earth scientists and biologists, especially geohydrochemists and microbial ecologists. The subject of subsurface ecosystems, experiments and modeling combined was seen as yet another important future research area. A burst of interdisciplinary activities in the area of this special issue is to be expected in the very near future.

The complete proceedings of this OECD-meeting on CD were co-sponsored by SKB, the Dutch Center for Soil Quality Management and Knowledge Transfer.

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