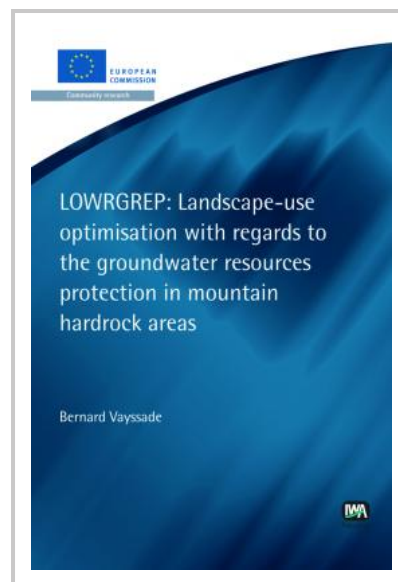


# Landscape-use optimisation with regards to the groundwater resources protection in mountain hardrock areas

This report assesses the degree of interference of human activities with the hydrosphere in mountain-zones, all located in hard-rock areas of different countries in the European Union. Each of the test-regions has a specific degree of protection: from regions with very few inhabitants and very low human impact, to regions submitted to a strong anthropogenic impact.

The investigations focused on the changes in water quality and on the simulation of various alternatives leading to optimum landscape-use from the point of view of water-management. The project's own Geographic Information System was used to fulfil the following objective: present all the obtained knowledge and analyse all the data in user-friendly form (maps of water vulnerability) and make this knowledge available for potential users with, for instance, the creation and use of a web site. A simulation tool has been developed which facilitates the assessment of the impact of landscape-use on the water budget of the catchment.

In all the areas investigated chloride is present, only in winter and very close to roads. Another result of this work is the decreasing impact on water of sulphur and sulphuric compounds in Germany and in the Czech Republic, while the nitrogen impact is increasing. Recommendations concerning the landscape-use are presented for all the regions in particular for good practices in agriculture.



**This EC report will only be available online.**

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