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# How desertification research is addressed in Spain? Land versus Soil approaches

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This study intend to understand how desertification research is organised in a south Mediterranean country, as is Spain. It is part of a larger work addressing soil and land research and its relationships with stakeholders. This wider work aims to explain the weakness of the United Nation Convention to Combat Desertification (UNCCD), which devoid of a scientific advisory panel. Within this framework, we assume that a fitting coordination between scientific knowledge and a better flow of information between researchers and policy makers is needed in order to slow down and reverse the impacts of land degradation on drylands.
With this purpose we conducted an in-depth study at national level in Spain. The initial work focused on a small sample of published references in scientific journals indexed in the Web of Science. It allowed us to identify the most common thematic approaches and working issues, as well as the corresponding institutions and research teams and the relationships between them.
The preliminary results of this study pointed out that two prevalent approaches at this national level could be identified. The first one is related to applied science being sensitive to socio-economic issues, and the second one is related to basic science studying the soil in depth, but it is often disconnected from socio-economic factors. We also noticed that the Spanish research teams acknowledge the other Spanish teams in this subject, as frequent co-citations are found in their papers, nevertheless, they do not collaborate. We also realised that the Web of Science database does not collect the wide spectrum of sociology, economics and the human implications of land degradation which use to be included in books or reports related to desertification. A new wider database was built compiling references of Web of Science related to “desertification”, “land”, “soil”, “development” and “Spain” adding references from other socioeconomic databases.
In a second stage we used bibliometric techniques through the Tetralogie software and network analysis using UCINET software, to proceed to:
1. Identify the most referred themes based on the keywords provided by the authors and by the Web of Science platform itself.
2. Identify the relationships between the different topics being addressed and their approach to the desertification from a basic scientific vision (soil degradation) and/or from an applied science vision (land degradation).
3. Identify and evaluate the strenght of possible networks and links established between institutions and/or research teams.