Modelization of Land Degradation by Desertification Using Medalus Method, Case Study of the Wilaya of Saida, Algeria

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Abstract : Algeria is one of the countries that are highly affected by desertification which is the consequence of several factors. For this purpose, there is a need to study this problem by quantitative approaches. In this study, we apply the MEDALUS method (Mediterranean Desertification and Land Use) to a watershed located in Saida town in semi-arid environment in the south west of Algeria. The method is based on sensitive areas identification by making use of the different parameters that may affect the desertification process such as vegetation, soil, climate and management. Spatial analyses are strong tools that allow modelization of each indicator. Results show that according to European standards, a large scale of the watershed falls into critical classes. And therefore, the modelization approach can be an effective way to study and understand the desertification showing an example of the project of the green dam that limits the desertification process to affect the north areas off Algeria.

Keywords : Algeria, desertification, MEDALUS, modelization
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