

Agent based modeling and simulation of a pastoral-nomadic land use system

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Almost half of Africa is covered by arid savannas, which are used as rangelands and are the source of livelihood for a vast population. To sustain pasture quality, degradation has to be avoided and efficient and sustainable land use strategies are needed. This paper describes the development of a simulation model representing the range management strategies of the Himba people in north-western Namibia. The model recognizes spatial factors and the impact of management decisions on ecosystem dynamics. The paper also describes the process of creating and validating a software application, and implementing the model.