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IMPACT OF BREEDING SYSTEMS ON LAND USE AND THE SUSTAINABILITY OF STEPPE FORMATIONS IN THE ARID REGION OF SIDI ABDERRAHMANE, TIARET, ALGERIA

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ABSTRACT

Breeding constitutes the main socio-economic activity in the steppic regions in Algeria but also a major handicap in terms of sustainable spatial planning. The present study aims to analyze the land occupation dynamics during the period 2000 - 2015 in the region of Sidi Abderrahmane (Tiaret, Algeria) in a perspective of sustainable spatial planning. The obtained results demonstrate a significant regression of steppe and chotts areas against an increase in agricultural spaces even in low fertile soils already deteriorated by drought and desertification. The decisive areas (steppe and wet), which play an economic and ecological role guaranteeing sustainability are threatened and have been reduced by 36,800 ha, which represent 22% of the total area. These findings highlight an advanced and almost irremediable degradation of land which was overexploited by breeding with a pastoral charge exceeding 2.5 sheep/hectare. The extension of agricultural areas on rangelands is another reflection followed by the advance of the dunes. This alarming state of steppe degradation requires the urgent implementation of stern program to manage, rehabilitate and restore these buffer regions against the advance of the desert through the reconciliation between local populations and their natural environment.

Key words: Steppe, Spatial planning, Remote sensing, Pastoralism, Algeria.