

The response of grazing land footprint to natural and anthropogenic disturbances - A panel analysis

A. CHANDHINI

ABSTRACT

Rapid urbanisation has led to emergence of urban agglomerations, which are the primary drivers of unsustainable land use trends in recent years. In terms of less restrictive laws, grazing lands are the ones that are easiest to obtain for developmental purposes. The livestock sector is also booming in terms of its production and trade because of the emergence of these agglomerations. Furthermore climate variability adds more strain on the already available grazing lands. As a result, the interplay between these factors and their resulting impact on grazing resources are a major source of concern for policy makers. The study looked at the effect of urban population density and the development of 1 million+, 5 million+, and 10 million+ agglomerations on grazing footprint for fifty countries with the highest level of permanent pasture over a period of 17 years (2000-2016). The study has also taken into consideration the livestock trade, climate variability and few other control variables to understand the true impact of the urbanisation indicators. According to the empirical findings, agglomerations of 5 million+ are the most sustainable in terms of resource usage from grazing and all other land types. However other agglomerations are quite unsustainable in their land use, necessitating stringent environmental policies to govern their land use patterns. Because of poor environmental governance in these countries, establishing comprehensive policies targeting land use and clearing is challenging.

Keywords: Grazing footprint, agglomerations, livestock trade, climate variability, environmental governance

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