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### Abstract

Rangeland degradation continues to be a major hindrance to improving pastoral livelihoods in Ethiopia's lowlands. This review study examines the scope of rangeland deterioration, its drivers, and the potential consequences of rangeland degradation, as well as different rangeland restoration strategies. It is meant to be used as a starting point for more detailed quantitative assessments to support policy and investment strategies in Ethiopia to address rangeland degradation. Rangeland degradation worsens with time, and rangeland productivity suffers as a result if proper care is not taken. Climate change, overgrazing, bush encroachment, population pressure, drought, government policies, encroachment of rain-fed agriculture, and the demise of traditional resource management institutions are all key contributors of rangeland degradation. Rangeland degradation has led in significant losses in rangeland condition, water potential, soil status, and animal performance, as well as household livestock holdings and communal poverty. Rangeland degradation has led in significant losses in rangeland condition, water potential, soil status, and animal performance, as well as household livestock holdings and communal poverty. Food insecurity, poverty to the point expand investments and strengthen policy support for sustainable land management in order to solve rangeland degradation issues.

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Pastoralists who rely on degraded rangelands are frequently poor and food insecure [4] As a result, rangeland deterioration and

desertification have sparked global alarm. Rangeland degradation is a global issue that affects not only pastoralists who rely on healthy rangelands for existence, but also those who are affected by hydrological disruptions, dust storms, commodity scarcity, and the social implications of uprooted people. Because all native flora and fauna have adapted to the long-term evolutionary pressures that have molded these rangeland ecosystems, rangeland health has an impact on



**Encroachment on agricultural lands:**

Encroachment on agricultural lands is a significant problem in the rangelands of Ethiopia. It is caused by the expansion of agricultural lands into the rangelands, which leads to the degradation of the rangelands. The expansion of agricultural lands is driven by the increasing population and the need for more land for agriculture. This expansion is often done without proper planning and consideration for the environment, leading to the loss of biodiversity and the degradation of the soil. The loss of biodiversity is particularly concerning as it can lead to the extinction of many species. The degradation of the soil can also lead to a decrease in the productivity of the rangelands, which can have a negative impact on the livelihoods of the people who depend on them for their food and income.

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**Frequent Drought:**

Frequent drought is a major cause of rangeland degradation in Ethiopia. Drought leads to the death of many plants and animals, which in turn leads to the degradation of the soil. The loss of plants and animals can also lead to a decrease in the productivity of the rangelands, which can have a negative impact on the livelihoods of the people who depend on them for their food and income. Drought is also a major cause of soil erosion, which can lead to the loss of topsoil and a decrease in the fertility of the soil. This can further lead to a decrease in the productivity of the rangelands and a negative impact on the livelihoods of the people who depend on them for their food and income.

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**Bush Encroachment:**

Bush encroachment is a significant problem in the rangelands of Ethiopia. It is caused by the expansion of bushy plants into the rangelands, which leads to the degradation of the rangelands. The expansion of bushy plants is driven by the increasing population and the need for more land for agriculture. This expansion is often done without proper planning and consideration for the environment, leading to the loss of biodiversity and the degradation of the soil. The loss of biodiversity is particularly concerning as it can lead to the extinction of many species. The degradation of the soil can also lead to a decrease in the productivity of the rangelands, which can have a negative impact on the livelihoods of the people who depend on them for their food and income.

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### Grazing management:

The study area is characterized by a semi-arid climate with a mean annual rainfall of 1000 mm. The vegetation is dominated by grasses and shrubs. The grazing management practices are based on traditional knowledge and experience. The study aims to assess the impact of grazing management on rangeland degradation and rehabilitation techniques in the study area.

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### Conclusion

The study area is characterized by a semi-arid climate with a mean annual rainfall of 1000 mm. The vegetation is dominated by grasses and shrubs. The grazing management practices are based on traditional knowledge and experience. The study aims to assess the impact of grazing management on rangeland degradation and rehabilitation techniques in the study area.

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