



Prioritization of factors affecting rangeland sustainability in Iran

Farzaneh Khojasteh, Mohammad Ali Zare Chahouki*, Hossein Arzani and Ali Akbar Barati

Department of Rehabilitation of Arid and Mountainous Regions, University of Tehran, Karaj, Iran

*Corresponding author e-mail: mazare@ut.ac.ir

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Abstract

Pastoralists in arid and semi-arid areas are facing important challenges which include population growth, climate change, shifting global markets, and land degradation etc. In this study, we used a multi-criteria decision making (MCDM) approach to rank a total of three major criteria (ecological, social, and economic issues) and 13 sub-criteria in relation to their importance in rangeland sustainability. The analytical hierarchy process (AHP) was used to score these criteria by experts and pastoralists in different rangelands of Iran. Our analysis ranked the two economic sub-criteria, pastoralist dependence to rangelands (16.1%) and pastoralist income (12.5%), as well as the social sub-criterion, number of pastoralists in a specific area of rangeland (9.2%), as the most important factors affecting sustainability. These factors are directly associated with the economy and income of pastoralist households. Therefore, appropriate policies and practices need to be established through education, promotion, empowerment and participation of pastoralists to improve their income and decrease dependence on rangelands as a source of livestock production.

Keywords: Analytical hierarchy process, Livestock production, Pastoralists, Rangeland sustainability