Land degradation and preventive measures from the perspective of the stakeholders.

ABSTRACT

Land degradation at the catchment scale in Iran is widespread, usually assumed to be accelerated by the activities of local inhabitants. Social issues such as low income, poverty and low level of welfare and education contribute to land degradation. A study was conducted to identify the causes of land degradation in Merek catchment, Iran and to propose appropriate measures to curtail it. In this study, land/soil surveys were carried out and soil samples analyzed. Subsequently, farmers, herders and nomads were interviewed and relevant experts were consulted. The results revealed that improper tillage practices, overgrazing and forest clearance were the worst significant human-induced factors causing land degradation. The other factors include crop cultivation without rotation and fallow period, improper tillage practices, crop residues burning and conversion of rangelands and forest to agricultural areas. Training and extension, soil conservation measures with farmers’ participation, enactment of new laws and amending of current laws (for monitoring agricultural activities such as fertilizers and pesticide application and burning of crop residues), forest preservation, improving the current grazing systems and empowering government employees are the possible measures to curtail land degradation in the study area. It is suggested that the government should create job opportunities among the unemployed in the village and enhance their welfare by introducing insurance, health services and educational level. These measures would result in sustainable agricultural practices in the Merek catchment and help ensure conservation of its rangeland and forest.

Keyword: Land degradation; Local inhabitant; Relevant expert; Merek catchment; Terminology; Karkheh river basin; Soil nutrient contents; Erosion intensity; Nutrient depletion; Soil organic carbon.