Abstract

Arid and semi-arid lands (ASAL) comprise about 80 percent of Kenya's land surface and receive limited and unreliable annual rainfall. Nomadia and semi-sedentary pastoralists who keep camels, cattle, sheep, goats, and donkeys under extensive grazing of natural rangeland vegetation inhabit these vast areas of marginal productivity.Although livestock farming accounts for utilization of 81 percent of ASAl, some of the more humid areas of ASAL along permanent and seasonal rivers and around mountains have been taken over for agriculture.This alienates some of the most important dry season grazing areas. In their pristine state, the arid rangelands provided an environment that could supprt the nomadic pastoralists in a normal year, with sufficient pasture and water for their livestock. The inhabitants had unique coping mechanisms for drought and conflict management that enabled them to survive in these harsh environments. Nomadism, which is characterized by mobility and deasonal migration, was their strategy for utilizing the sparse vegetation and water resources. When well planned, it is the optimal production system for arid rangelands. Other traditional technologies of animal husbandry, herbal medicine, food preservation and weather prediction further assisted in coping with the adverse effects of drought. Pastoralists' diets consisted mainly of milk, meat, blood and honey as well as supplementary wild fruits and tubers. Over time, high human and livestock population pressure, sedentarization, increased incidence and severity of drought, insecurity and external influences have led to a decline in land productivity and severe degradation and disertification of the environment. In most ASAL areas, pastures are so degraded that they can no longer support increasing or current numbers of livestock. In addition, there is decreased biodiversity of fuel wood resources, medicinal and ceremonial plant species, building materials, and shade trees.