

The role of environmental conservation on survival of indigenous medicinal knowledge in Meru County, Kenya

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Abstract:

Human activities have shaped the world over the years. Survival instincts prompted early man to explore his immediate natural surroundings and try many plants, animal products and minerals to develop a variety of therapeutical agents. W.H.O currently encourages, recommends and promotes research and inclusion of herbal drugs into national health care programmes. Indiscriminate destruction of forests and wood lands has led to reducing biodiversity that is increasingly causing disappearance of indigenous medicinal knowledge in Imenti South district of Meru County. Several researchers highlight that there is an urgent need to research and document indigenous medicinal knowledge of all areas before the opportunity is lost through adverse environmental degradation and continued demise of elders. This research is a field survey in Imenti-South district, Meru County, Kenya. It focused on investigating the relationship between the level of environmental conservation and the available indigenous medicinal knowledge in different ecological zones in the district. The chi-square test of the hypothesis at $P < 0.05$ confidence level in the two variables tested rejected the null hypothesis. It was rejected proving the fact that the survival of indigenous medicinal knowledge of Imenti South district is dependent on the ecological status of the environment. This reveals that the parts of the district that had more bushes or other conserved natural reserves had more indigenous medicinal knowledge than those that had less. It was found that over 261 indigenous medicinal materials were in use in Imenti South district. The materials, the diseases they treated, parts of materials used, and the common places of harvest were documented. Over 67.0% of the materials mentioned were harvested from the wild. Only 33.0 % were preserved or domesticated in individual farms and kitchen gardens. Male respondents had more knowledge than females, while the elderly respondents had highest knowledge; both of which were a threat to knowledge survival, because mothers were major culture transmitters and the demise of elders was inevitable. Also, 48.9% of the mentioned materials were those categorized as 'scarce' and 'difficult to find'. About 71% of the materials were used for other needs like carving, firewood, fodder, timber and poles. In addition to bush clearing for farmland, these human activities made indigenous medicinal materials vulnerable to destruction. It was found that in part of the district where community members participated in environmental conservation, the residents had more indigenous medicinal knowledge surviving the tides of change and vice versa. Priority materials for domestication and conservation interventions were identified using respondent number ranking and ranking materials according to medicinal value, commercial value and cultivation preference. These four formed a good framework for development of any desired community-based indigenous medicinal resource conservation programme in the district. There is an urgent need for all conservationists in Imenti South district to adopt these integrated community-based conservation strategies based on the four options of the suggested framework of domestication and conservation. In this framework, farmer's knowledge should be adopted in the IMR conservation and domestication strategy, to embed the practice into the culture. Once integrated in the culture, sustainable development of IMK will be assured.