Abstract

Human have been always exploited natural resources for his survival throughout his life and he has implemented numerous plans for better living, and over time through trial and error has achieved results that yet today serve as useful experiences which is called indigenous knowledge. The present research aims to identify and explain indigenous knowledge and technology of management and conservation of the soil and water resources of Hirmand County. Hirmand County with an area of 1100 km^2 is located north of Sistan and Baluchestan province and its center is Dust Mohammad. This is an analytic research according to the research variables. To identify and collect indigenous knowledgeField methods such as field survey, direct observation, identification of local experts, interviews, snowball techniques and Delphi technique were used. In addition using questionnaire, indigenous knowledge of locals was collected. The questionnaire consists of five items questions, very bad (score 1), bad (score 2), intermediate (score 3), good (score 4) and very good (score 5).Expert's opinions were used to determine the questionnaire validity. To determine the questionnaire reliability, the kronbach's alpha coefficient was used which is equal to 0.82. Cochran method was usedto determine samples size.The results showed that in water management, indigenous management methods and optimal water use, not only meet water demands of human communities and livestock in the area, but also contributed to the cultivation of more land and the development of agricultural land.The results showed that application of organic and green fertilizers, non-plowing soil in some part of yearat which highest erosion occurs and landscaping is one of the best solutions provided by the rural community and the indigenous experts.Also, by prioritization of water conservation approaches, it was found that irrigation at night was considered as the first priority with a standard deviation of 0.84, in the field of water retention and alleviation of water scarcity, followed by using suitable methods for planting with a standard deviation of 0.88, in water storage, optimal use of water with a standard deviation of 0.76, and in land irrigation, proper water management and respect for irrigation principles and rules with a standard deviation of 46.3.

Keywords: Erosion, Windbreak, Indigenous knowledge, Water resources, Sistan

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