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Connecting the Dots; Environmental Literacy Index in Measuring Knowledge for Environmental Conservation

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Abstract

Conservation at Aldo Leopold noted that acts of conservation without the requisite desires and skill are futile. Systematic environmental education plays a significant role in enhancing knowledge and competencies for environmental sustainability through a scientifically informed citizenry. The environmental education spiral consists of three key elements; environmental awareness, environmental conduct, and environmental literacy. While environmental conduct that emerged with awareness contributes to the reduction of environmental degradation, scholars argue that environmental literacy contributes to conservation. With the objective of developing an environmental literacy index, this research assessed environmental knowledge, personal conduct, and the extent of application of environmental knowledge. Key informant interviews were held to develop the index with 30 criteria, and a survey was held with 160 students in schools and universities, teachers, and development officers. Environmental literacy is seen as the individual's understanding and competencies that create rational and informed decisions and contributions to conserve natural systems and associated communities that create a sustainable and environmentally friendly quality of life. Environmental education can take place in many forms and is incorporated in the school education syllabus from grade one to eleven in general, and in the science stream. Among the school students, the majority (76%) were able to identify and understand ageappropriate environmental features and significance, however, had very low (13%) personal conduct for reducing pressure on the environment, while had moderate (38%) literacy levels. The average responses of the university students were 82%, 48% and 63%. Teachers, including nonscience subjects teaching, had a similar status with the university students, indicating 84%, 54%, and 61%. The development officers showed slightly different patterns, representing 73%, 41% and 51%. Among all the respondents, only 13% identified agriculture practices may contribute to water pollution, 12% stated that the transport sector contributes to greenhouse gas emissions, and 9% believed that energy practices at home contribute to global warming. The study reveals that environmental understanding has not contributed much to personal behaviours to reduce the pressure on the environment, and environmental literacy has not been in a state of environmental activism.

Keywords: Environmental conservation, Environmental education, Environmental literacy