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Knowledge, attitude, and perception (KAP) of university students towards mangrove ecosystems conservation in Sri Lanka

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Abstract

Mangrove ecosystems are identified as one of the most productive ecosystems and provide a range of ecosystem services, yet they have been heavily subjected to the decline over past years. Therefore, enhancing the knowledge, attitude, and perception (KAP) on mangroves conservation among stakeholders, especially, youth is one of possible strategies for the long-term mangrove conservation and management. In addition, this practice also can incorporate in national planning while fulfilling some research gaps in the field of mangrove ecosystems conservation. The present study was conducted to quantify the KAP and to assess the suitability of using university students towards sustainable mangrove ecosystems. This research was carried out as a questionnaire survey among students (n=527) representing 30 universities studying in the 2020-2021 academic period adopting a random sampling technique. Through the questionnaire, the level of KAP towards mangrove forest conservation among students was evaluated and quantified. Cronbach's alpha reliability test (Cronbach's alpha = 0.823) was followed to test the reliability of data. The study findings asserted that the range of Likert scaled score (5-highest and 1-lowest) for the knowledge assessment criteria was 3.5 to 4.5 scale. Further, attitude assessment criteria were in between 3.0 to 4.6 distributions whereas the perception criteria showed a score level from 4.0 to 4.7. Furthermore, it was noted that there exists a positive relationship between KAP components, as per the linear regression models of attitude and knowledge, perception and knowledge, and perception and attitude were significant. According to the linear regression models we tested for each component, the complete model designed to evaluate the effect of attitude ($p < 0.001$) and perception ($p < 0.001$) on the knowledge component received 98% of the weight when selecting the best model with Akaike Information Criterion to determine the relationships between components. Hence, the model asserts the significance and synergy of attitude and perception components for knowledge as the results were significant and positively correlated. The study findings suggest that as the students are aware of the importance of mangroves and conservation value and there exists a higher potential to employ their contribution to mangrove conservation projects research activities and community awareness.

Keywords: Conservation strategies, Knowledge-attitude-perception, Mangrove ecosystems, Sustainable management, University students

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