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A review on people's perception of biodiversity, climate change and water resources in Sri Lanka

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Abstract

Biodiversity, climate change and water resources have become current topics related to the environment in last few decades. Preventing biodiversity loss, sustainable water management, mitigating and adapting to climate change are essential. The objective of this study was to conduct a review on research studies based on people's perception of biodiversity, climate change and water resources. Using Search, Appraisal, Synthesis, and Analysis (SALSA) framework as the methodology, Google Scholar and PubMed were used as academic databases and data was summarized in a Microsoft Excel sheet as follows: Article name, Author, Year of published, Category, Publication type, Focused area, Research type (qualitative, quantitative, mixed) and Location. Studies focused on biodiversity, climate change and water resources perception related to citizen science, conducted in Sri Lanka, published in academic, peer-reviewed literature, published in past three decades (1990-2021) in English were considered as inclusion criteria. Fifty studies were qualified for the study. In terms of key findings, the majority of studies have focused on biodiversity perception (45%), while the fewest have focused on water resources (24%). Since 2005, there has been an increase in the number of studies in relation to these three disciplines. As a percentage, 86% of biodiversity studies, 86.67% of climate change related studies, and 91.67% of water resources related research were carried out after 2005, while 86% of studies were carried out after 2005. The majority of the studies employed quantitative and qualitative mixed methods (52%). The number of qualitative studies was extremely low (4%). Human-wildlife conflict, green coverage, and biodiversity education were the primary focus of biodiversity research activities. In biodiversity sector, most of the articles have been focused on the human-wildlife conflict (27%). Climate change research activities have primarily focused on adaptation, and majority (53%) of studies have done focusing farmers. Water resources studies were primarily concerned with water resource management (25%). The lack of access to safe drinking water was one of the most common issues identified across several areas in Sri Lanka. Even though there are studies conducted on these disciplines, numerous aspects of these topics are yet to be discovered.

Keywords: Biodiversity, Climate change, Perception, Sri Lanka, Water resources

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