

Visualizing the authorship and keywords relationships on Environmental Science publications based on SLJOL from 2016-2020

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The authors of the paper attempted to measure the local research on environmental issues in general by published in a Sri Lankan database named Sri Lanka Journal Online (SLJOL). This study therefore selected this database to execute their bibliometric survey to find out the predominant authors and keywords mentioned by authors. The prime objective of the study is to describe the authorship relations and co – occurrence of keywords used in research publications on environmental sciences published in the journals listed in the SLJOL. Out of 106 journals of the database 24 journals were selected which published papers related to Environmental Sciences and 156 articles were selected for this analysis. MS Excel, Mendeley reference software and Vosviewer software were used to analyze the data. Using Vosviewer network visualization analyses were executed to find out co-author relationships and co-occurrence of keywords. Total count of bibliometric data was performed. Co-authorship has been used to describe how authors are connected between them were visualized using Vosviewer. Of 382 authors, 46 authors who had strong collaboration were mapped in to 26 clusters. In addition to collaboration within the research clusters, collaboration between the research clusters could also be observed. 23 authors who are in 7 clusters contribute for cross cluster collaboration. There were 590 keywords extracted from those 156 papers. Out of these 590 keywords there were 81 keywords having a minimum of two occurrences. Most of the papers were published in subject areas such as water quality, ground water, diversity, conservation, climate change, pollution, mangroves and heavy metals. Urban Planning, Soil Contamination and Ecological Footprint were some of the least researched areas. In conclusion it could be mentioned that still there are several important areas where only a fewer number of research were recorded especially the environmental issues Sri Lanka facing at present. Therefore, comprehensive further studies could be recommended to find out the research gaps in the field of Environmental sciences in Sri Lanka

Keywords: Bibliometric analysis, Environmental Science, VOSviewer, Sri Lanka Journal Online