

A CROSS – NATIONAL ANALYSIS OF SCIENTIFIC PUBLICATIONS ON  
ENVIRONMENTAL SCIENCE AMONG THE SAARC COUNTRIES WITH SPECIAL  
REFERENCE TO SRI LANKA: A SCIENTOMETRIC STUDY

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### Abstract

The main objective of this study is to explore and compare the quantitative distribution and growth characteristics of SAARC countries' publications in environmental science from 1995-2014 based on *Web of Science* database. It also provides a means for comparing the Sri Lankan effort in this area with that of SAARC countries.

The total world's literary output reflecting all fields is 29,780,519 records during 1995-2014, which have published in 48 different languages written by 790,122 authors. The share of environmental science research is 493,375 papers constituting 1.66% of the world's research output, which have published in 14 (29%) languages by 197,511 environmental scientists. Total research output of SAARC countries in environmental science is 21,209 during 1995-2014. Out of 21,209 publications of SAARC countries about 84% shared by India. Among the SAARC countries India, Pakistan, Bangladesh, Sri Lanka and Nepal possess a productivity rate of not less than 1% of total literary output in environmental science. Afghanistan is the least productive country among eight SAARC countries. In general SAARC countries' relative research efforts are surpass the world average during 1995-2014, with slight fluctuations in terms of Modified Activity Index. In terms of quality indicators, countries have the following ranks: Sri Lanka > Pakistan > Bangladesh > Nepal > Maldives > Bhutan > India and > Afghanistan, where Sri Lanka and Pakistan occupies the position corresponding with the highest quality, and India, Afghanistan the two corresponding to the poorest quality. According to international collaboration, each SAARC's partners are the leading economies in the world. SAARC countries' links show the sharpest pattern of association with leading economies and underscores its position in this elite group. The thesis ends with important recommendations for further improvement in research and development.

**Keywords:** *Citation analysis, Research evaluation, Research Collaboration, Research visualization, Scientometrics,*