

**WORLD DEVELOPMENT INDICATORS ANALYTICS FOR  
SOUTH ASIAN ASSOCIATION FOR REGIONAL  
COOPERATION COUNTRIES**

**Kavita Pabreja**

Associate Professor and Head of Department of Computer Science,  
Maharaja Surajmal Institute, New Delhi, India  
E-mail: kavita\_pabreja@rediffmail.com

*Dedicated to Prof. A.M. Mathai on his 80<sup>th</sup> birth anniversary*

**Abstract:** Data is an asset and offers tremendous opportunities for enabling innovation by observing previously unobserved patterns. Gross Domestic Product growth is considered as one of the most important parameters to understand the economical position of a nation. The economic health of a country depends upon many factors viz. consumption, business investment, government expenditure and net exports. In this study, an attempt has been made to perform analytics on education, health, environment and economic parameters of South Asian Association for Regional Cooperation countries. The datasets under study have been downloaded from The World Bank website and countries under study are Bangladesh, Bhutan, India, Pakistan and Srilanka. Latest analytics tools like R programming language and matlab have been used to give insight into the important world development indicators and finally the Gross Domestic Product of SAARC nations have been forecasted based on education, health and carbon dioxide emissions with a convincing mean square error of 0.037, using artificial neural networks.

**Key words and Phrases:** Data analytics, health, education, economy, artificial neural networks, world development indicators.

## **1. Introduction**

There is a huge repository of world development indicators available on the World Bank website for over 200 countries worldwide. The South Asian Association for Regional Cooperation (SAARC) is regional intergovernmental organization and geopolitical union in South Asia. Its member states include Afghanistan, Bangladesh, Bhutan, India, Nepal, the Maldives, Pakistan and Sri Lanka. SAARC