



## **The utilization of renewable energy sources to reduce the contribution of Green House Gases (GHGs) on climate change in Sri Lanka**

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### **Abstract**

Sri Lanka's current carbon footprint is much less than the global indicates but according to the Global Climate Risk Index 2019 rated Sri Lanka as the second most affected country by extreme weather events. Burning fossil fuel for energy generation and transportation is the main source of GHGs emissions on climate change in Sri Lanka. Waste burning, industrial emissions, and deforestation are also considered contributing the climate change. Thus, one of the most effective ways of reducing emissions is to use renewable energy sources. Accordingly, this study was carried out to evaluate the utilization of renewable energy sources to reduce the contribution of GHGs on climate change in Sri Lanka. Mainly secondary data were collected for this study. The findings of the study reflected that as a middle – income country, Sri Lanka has 80% renewable energy utilization as the most effective and sustainable method of reducing GHGs emissions. Sri Lanka is prone to monsoon rain and wind as a result of the tropical climate also. Therefore, as sunlight continues throughout the year, Sri Lanka has access to renewable energy sources such as sunlight, water, wind and ocean waves. In this condition, legal action plans, target policies, eco-friendly associations, and the enthusiasm of the youth are already underway to challenge the carbon footprint. According to the Sri Lanka Energy Sector Development Plan, These include 20% renewable energy use by 2020 and Sri Lanka as a self- sufficient country by 2030, 5% reduction in fuel and fuel consumption in the transport and manufacturing sectors, and 5% reduction in the energy sector by 2025. Thus, the utilization of renewable energy is important to reduce GHGs.

*Keywords: Renewable Energy, Climate Change, Carbon Footprint, Green House Gases, Fossil Fuels*