



ANALYSIS AND IMPACT OF THE MEASURES TO MITIGATE CLIMATE CHANGE IN SRI LANKA

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ABSTRACT

Sri Lanka has been a party to the United Nations Framework Convention for Climate Change (UNFCCC) since 1993; Kyoto Protocol since 2002 and most recently the Paris Agreement in 2016. In line with the latter, Sri Lanka prepared Intended Nationally Determined Contributions (INDCs) to include climate change mitigatory actions in five sectors namely energy, industry, transport, waste and forestry and eight adaption sectors such as agriculture, fisheries and livestock, health, water and irrigation. This papers analyses the potential of the mitigatory actions in the aforesaid sectors by constructing mitigation scenarios as against the baseline scenario (Business as Usual (BAU)) up to year 2030. In constructing these scenarios, the available secondary information by ways of published reports, policies, strategies and action plans in the relevant sectors as well as at national level were reviewed. The primary data was obtained from the Ministry of Mahaweli Development and Environment in connection with the Third National Communication Project.

The results showed that the achievement of the targets set out in the Intended Nationally Determined Contributions (INDCs) vary among the sectors concerned; some sectors having greater potential while others to a lesser extent. In the energy subsector - electricity, it is envisaged that the Green House Gas (GHG) Emissions will reduce from 24,000 in the Business as Usual (BAU) projected amount to 10,000 (C02) equivalents Gg in 2030 in the mitigation scenario if the most recently approved Long Term Generation Plan of the Ceylon Electricity Board (2018-2037) which has emphasized the use of renewable energy and Liquid Natural Gas is fully operational. Certain demand side management actions too contribute to this reduction. In the transport sector, the relevant figures 16,000 (C02) equivalents Gg in the BAU case compared with 12,000 (C02) equivalents Gg in the mitigation scenario. The reduction will be less significant in the industry sector (from 1100 to 900 (C02) equivalents Gg) in 2030. The forestry sector will enhance the C02 sequestration significantly when the existing forest cover will increase from 29% to 32% in year 2030. A significant reduction of the GHG emissions is expected in the waste sector which is envisaged to reduce the value from 350 (C02) equivalents Gg in the baseline scenario to 25 (C02) equivalents Gg in the mitigation scenario. However, except for the electricity sub sector, in other sectors clear targets of GHG emission reduction is not present and this poses a drawback in reaching the expected mitigation of GHG.

Keywords: GHG, mitigation, INDC, emissions, energy, waste, forestry, transport