**TEA RESEARCH INSTITUTE OF SRI LANKA**
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*"Looking Ahead Together: Disaster Preparedness, Production Outlook, and Cultivar-Led Responses to Market Demand"*

# Near-Term Forecast of Annual Tea Production in Sri Lanka

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## SUMMARY

Forecasts of annual tea production in Sri Lanka are important for determining marketing strategies, assessment of vulnerability to key external factors (e.g. climate change, input availability, labour shortage etc.) and formulating strategies for increasing production. The Chairman's address to the 244th Experiment and Extension Forum will include a near-term forecast of the annual made-tea production of Sri Lanka. The forecasts will be presented for the annual made-tea production in the three elevational groups, low-grown, mid-grown and high-grown. In order to develop forecasting models for the three elevational groups, major quantifiable factors that have influenced the historical production trends during the period from 1963 to 2024 were identified. Annual fertilizer usage, size of the registered labour force and climate were the principal factors identified as influencing the historical production trends. Data for fertilizer usage and labour force that were available from 1980 onwards were used in developing forecasting models. Climatic data on directional climate change (i.e. continuously increasing temperatures) and climate variability (i.e. year-to-year variation in climate) were also incorporated into the forecasting models. Models were developed by multiple regression analysis. Specific models which could predict the respective historical production trends in the three elevational groups with the highest accuracy were selected for making forecasts for the seven-year period from 2025 to 2031. Production forecasts will be presented for following future scenarios: (1) Predicted production trends with the current declining trend of the labour force at different future levels of fertilizer application (i.e. current, 10% increased and 25% increased fertilizer use); (2) Predicted production trends with the labour force remaining at the 2024 level at different levels of fertilizer usage; (3) Predicted production trends at different levels of labour efficiency (i.e. current, 25% and 50% higher labour efficiency) combined with different levels of fertilizer usage. These production forecasts provide indicators for formulating strategies towards increasing the national tea production in the next decade. Recommendations, based on TRI's past and on-going research, for addressing the key challenges identified in these production forecasts and increase the national tea production to meet the national targets will be discussed.