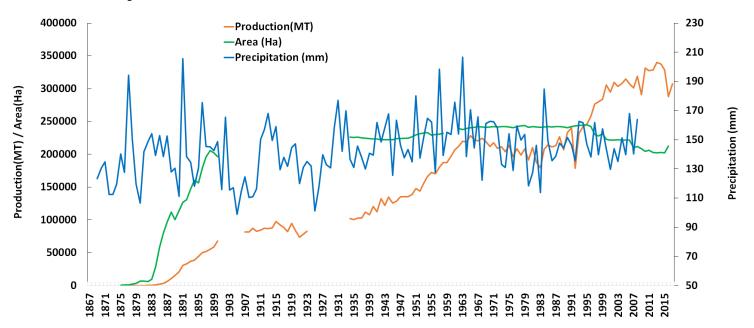
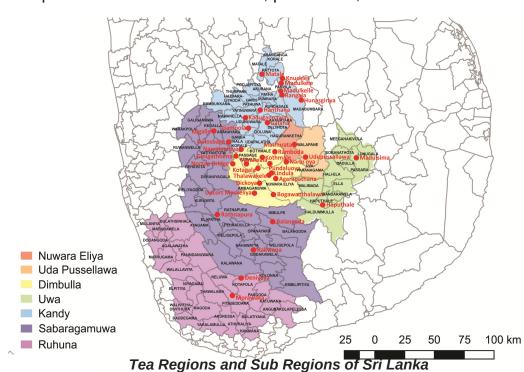
# TEA & CLIMATE

A TROPICAL CLIMATE NEWSLETTER

## Tea production, Tea Extent and Rainfall in Sri Lanka



Tea cultivation commenced in 1867 in the hills of Ceylon, starting in Kandy. Island-wide meteorological observations commenced in 1869 in stations in Kandy, Ratnapura, Nuwara Eliya, Diyathalawa, and Bandarawela. Records of both tea and climate were maintained in most estates. The above graph captures the area of cultivation, production, and rainfall.



#### TROPICAL CLIMATE

Tropical Climate was established as a non-profit charitable organization in 2017 aiming to use science for public welfare and environmental sustainability. Our organization conducts research on problems of interest to the community and for the protection of the environment.

#### **Tropical Climate**

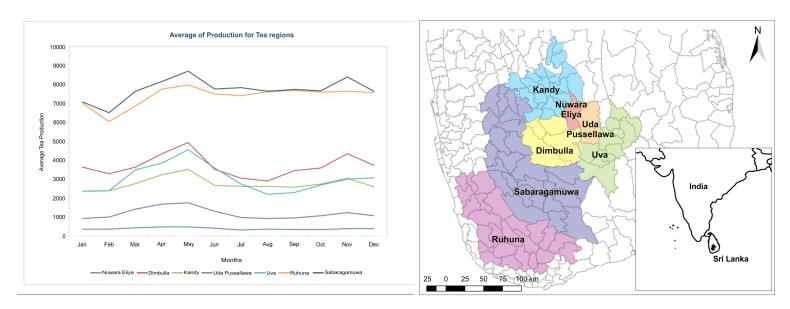
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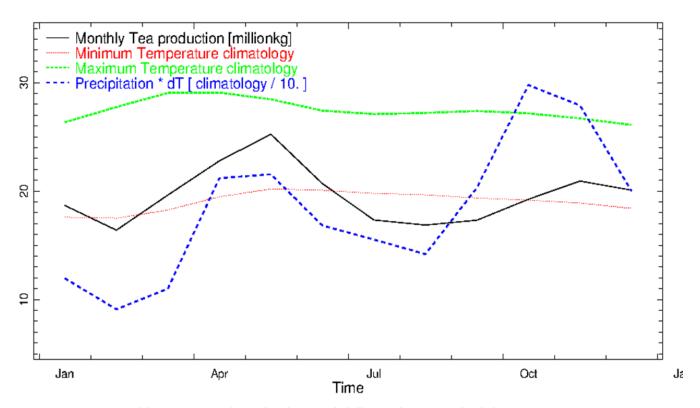
## Average of Monthly Tea Production by Tea Districts from 2002 - 2016



This graph shows the monthly average tea production (MT) for the 6 tea regions from 2002 – 2016 in Sri Lanka. The seasonality of production from 2002 to 2016 by subregions of the tea districts is a peak from March to June and from October to November. In February and July to September the seasonality shows a lower production.

### RESEARCH OUTPUT - SEASONAL IMPACT OF CLIMATE ON TEA PRODUCTION IN SRI LANKA

(NIJAMDEEN, A., ZUBAIR, L., DHARMADASA, M., NAJIMUDDIN, N., P. AND MALGE, C.)



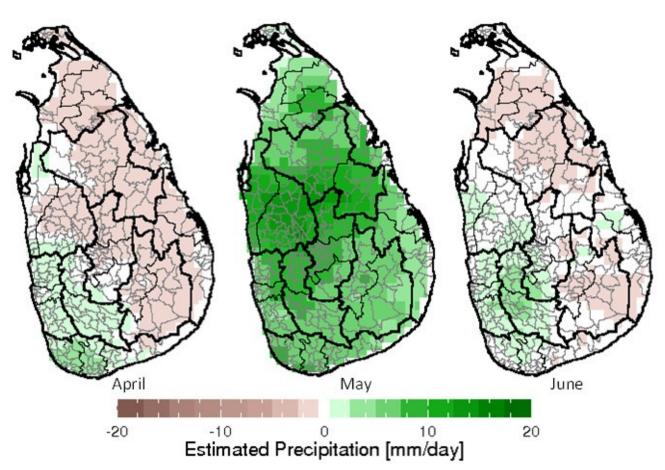
Monthly Average of Production, Rainfall, Maximum and Minimum Temperature

We investigated the impacts of climate (rainfall, minimum, and maximum temperature) on tea production in Sri Lanka. There is evidence for the influence of rainfall, maximum and minimum temperature on tea production

- Higher rainfall enhances February to May production while higher temperatures suppress the production
- In the colder months from October to December, higher temperatures enhanced production.
- There is also a strong seasonality of production in different regions of the hills where the climate influence differs.

These relationships shall enable us to develop climate-based statistical models for yield predictions.

#### **CLIMATE SUMMARY FOR (APRIL, MAY, JUNE 2018)**



**April** - above average rainfall conditions were experienced by the Ruhunu and Sabaragamuwa Tea Districts while rest of Tea Districts experienced below average rainfall. Galle received above average rainfall up to 150 mm; and other sub regions Kalutara, Kegalla and Ratnapura and Nuwara Eliya district up to 90 mm.Uva, Uda Pusselawa and Kandy tea districts up to 90 mm.

**May** - above average rainfall conditions were experienced by all the Tea districts. All tea districts received up to 300 mm above average rainfall.

**June** - above average rainfall conditions were experienced by the Ruhunu and Sabaragamuwa Tea districts. Ratnapura sub-district received up to 210 mm above average rainfall; Nuwara Eliya district up to 150 mm; Galle and Matara sub-districts up to 60 mm. Kandy, Dimbulla, Uva and Uda Pussellawa districts experienced below average rainfall.