



Paddy cultivation in Mannar, January 2019. (Photo credit: Sadhana Mohan)



*This bulletin looks into the key aspects of climatic seasonal trends and their impact on the population and food security during the first three months of year, through the products of Platform for Real-time Information and Situation Monitoring (PRISM). PRISM system is hosted at the Ministry of Public Administration and Disaster Management. PRISM has the capability to capture climate related and space based information.*



Paddy production forecast for Maha season 2018/19 is favourable and sufficient for 9 months of consumption



Current reservoir water level is 65%. A successful Yala season needs above 50% of water capacity



With the current enrolment rate and reservoir water level, paddy production in Yala 2019 is expected to be normal



April to June seasonal rainfall is estimated to be below normal. However, over the past three years, country received extreme rain fall during the month of May which led to floods and landslides.

## Climate & Food Security Monitoring Bulletin

### January - March 2019



This bulletin is developed by the UN World Food Programme, in collaboration with Department of Meteorology and Disaster Management Centre of Ministry of Public Administration and Disaster Management to facilitate the evidence based decision making for planning and implementation programmes.

# Rainfall variations



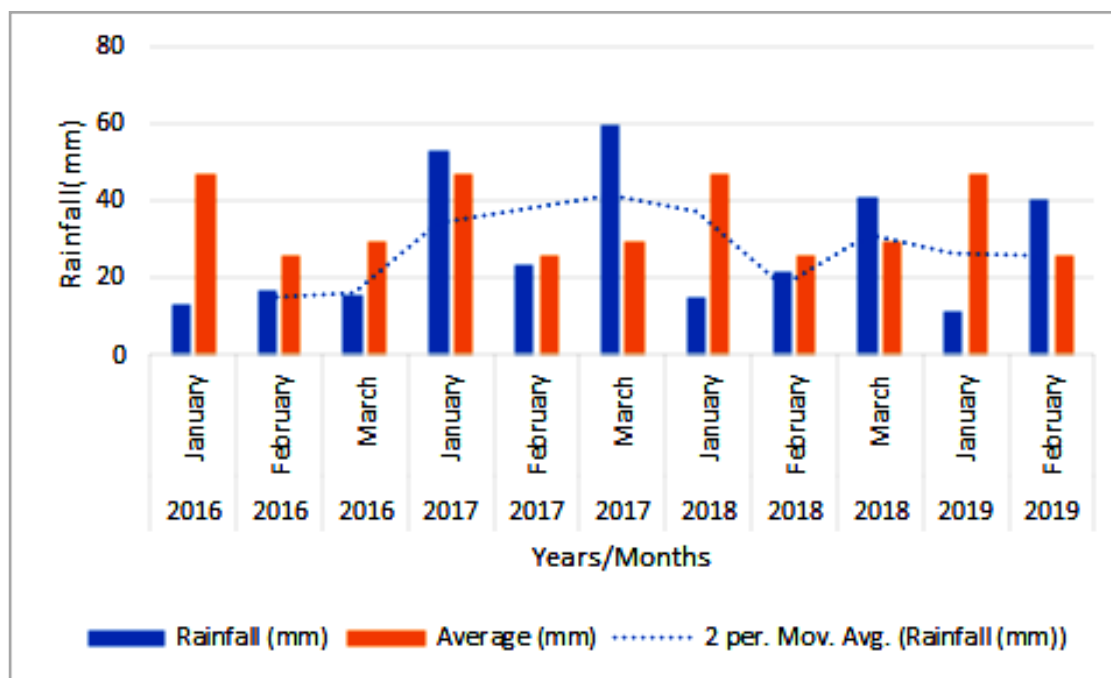
Sri Lanka received slightly below average rainfall in the month of January 2019 compared to the long term average. However, the rainfall received in February 2019 was above the long term average.

The first inter-monsoon rain of an year will occur between March to April. During this period, farmers will prepare the ground for Yala cultivation. This inter monsoon will be immediately followed by the South West monsoon from May to September.

The North Eastern monsoonal rains received in January 2019 was reported as below normal in Northern and North Central provinces which may impact the agricultural activities in those regions in the Yala season (May-August 2019).

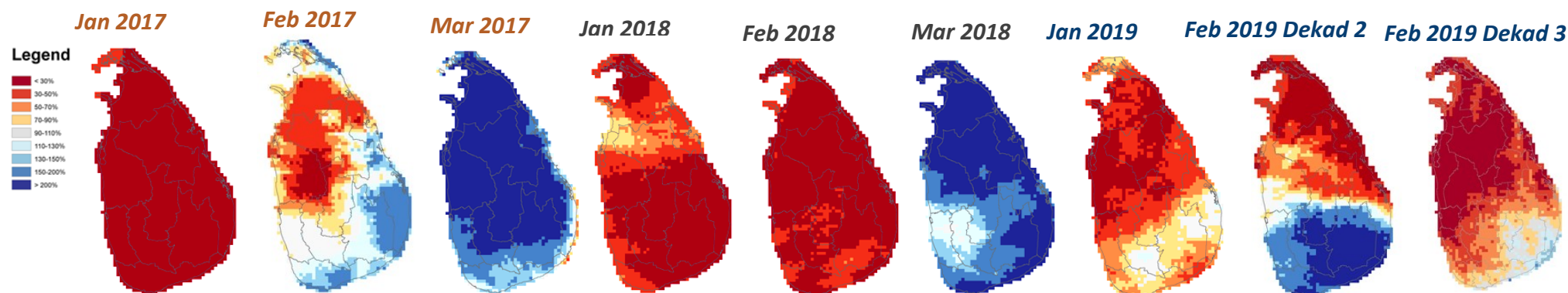
Compared to the first quarter of 2018, the Southern and South Eastern regions in the country have received more rainfall in February 2019. The total current water storage level of major reservoirs in the country accounts for 65%. Therefore a favourable hydro-meteorological conditions for Yala cultivation is expected in those regions.

**Figure 01: Quarterly Precipitation 2016 – 2019**



Source: [dataviz.vam.wfp.org](http://dataviz.vam.wfp.org) (CHIRPS data)

**Figure 02: First Quarter Rainfall Anomaly 2017—2019**



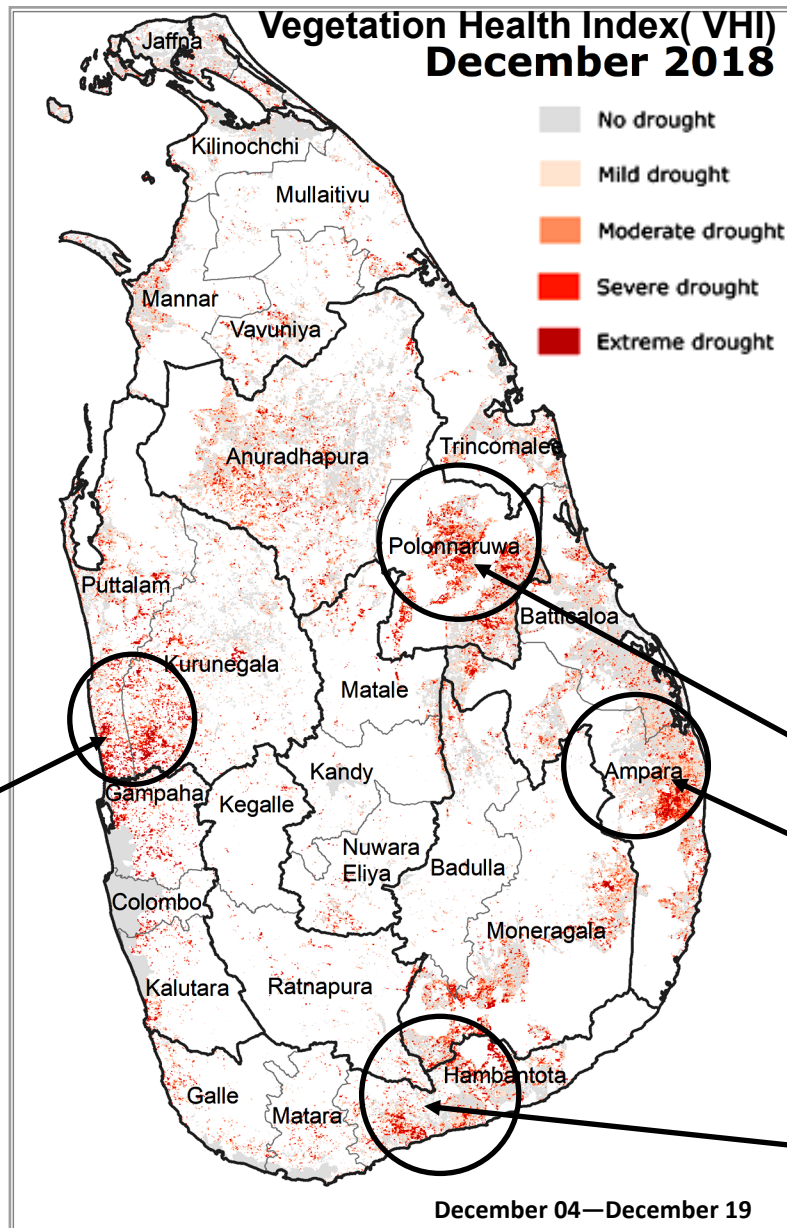
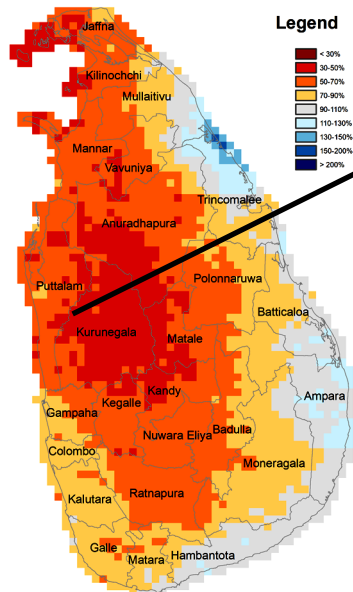


# Impact of Dry Weather on Seasonal Crops



**IMPORTANT:** The VHI is effective enough to be used as proxy data for monitoring vegetation health, drought, moisture, thermal condition etc. The VHI classification in the legend only shows the moisture stress to the crops during 16 days of the reference period.

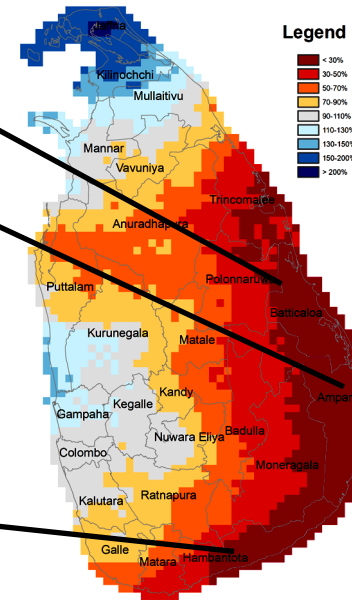
## Dekad 01- December



Agriculture drought is a situation whereby rainfall and soil moisture are inadequate during the crop growing season to support healthy crop growth to maturity, causing crop stress and wilting. Vegetation Health Index (VHI) is used as an indicator to monitor the agriculture drought. VHI is associated with the moisture condition and thermal condition of crops.

In December 2018 (paddy maturity period) as indicated in VHI map, certain regions in the districts of Polonnaruwa, Ampara, Hambantota and southern part of Puttalam and Kurunegala have experienced a dry weather condition. This is further evident when compared to the rain anomaly of December Dekad one and three of 2018. Certain pockets in Anuradhapura and Moneragala districts have experienced moderate drought. As a result of the dry weather stress, crop productivity would have been lower in those regions.

## Dekad 03- December



Northern districts received higher rainfall in the third week of December 2018 (above 250mm) which created flash floods, especially in Kilinochchi and Mullaitivu districts which affected 41,947 ha of cultivation.

In addition, Western province also received sufficient rainfall in November and December 2018. As seen in the maps, no drought prevailed in majority of the areas in both Northern and Western provinces.

**Figure 03: Vegetation Health Index and Rain Anomaly Dec 2018**

# Updates on Sri Lanka's Food Security



Figure 5 illustrates the prices of a few key food commodities during the first quarter of years 2016—2019.

The prices of main protein sources (Q1 2019) show an increasing trend compared to the Q1 of 2016 to the first quarter of 2019 mainly due to increased inflation rates in the country.

However, the price of staple food rice (Nadu variety) reduced in 2019 as compared to the first quarter of 2018 and 2017. Current price of Nadu is reported as LKR 95. It was LKR 104 and LKR 100 in February 2018 and 2017 respectively. The decreasing trend informs that the production in 2018/19 Maha season has contributed to fill national demand and the country is able to achieve rice self-sufficiency after two consecutive years of less production due to prolonged drought.

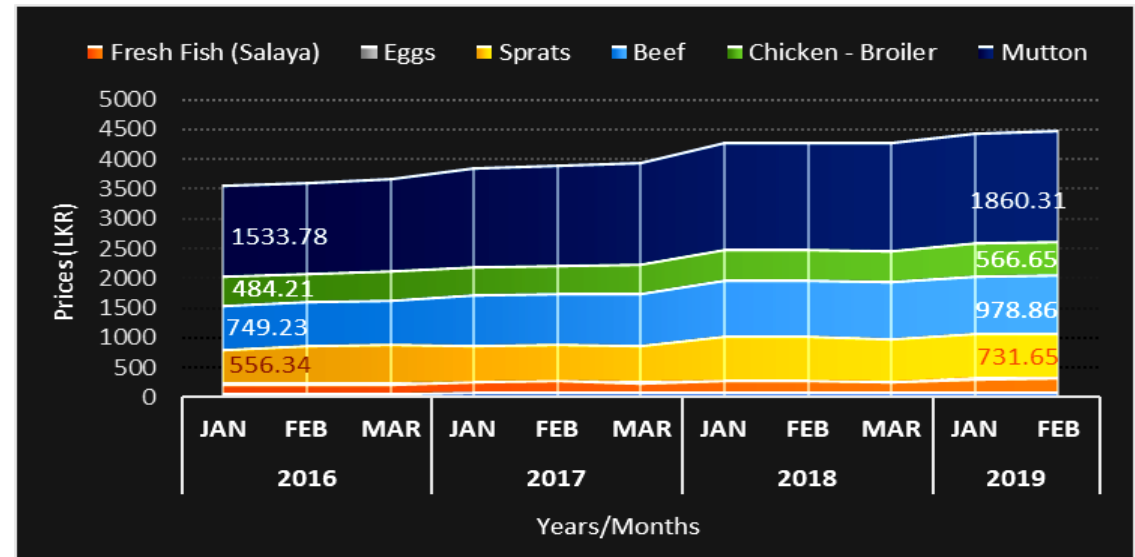
**Paddy Cultivation progress:** Cultivation target of paddy for Maha season 2018/19 was 832,611 ha. Sown extent reported by the end of January was 755,518 ha which is 91% of achievement of target extent. The reported sown extent is 15% higher than the sown extent of last three Maha seasons. Sufficient rainfall received during the North Eastern monsoon contributed for this achievement.

**Crop damages:** Reported crop damages due to floods (42,267 ha) and pest diseases (505 ha); Kilinochchi and Batticaloa are the worst affected districts.

Paddy production forecast for Maha season is 2.89 million based on the reported sown extent and crop losses. This expected production equals the best production reported in 2014/15 (2.87 million mt) and 2015/16 (2.90 million mt) Maha seasons. Despite the projected damages, the paddy production is expected to be more than the production of last Maha season 2017/18 (2.39 million mt). Cultivation progress of Other Field Crops (OFCs) by the end of January was 125,757 ha; 78% of the target. Overall, the total rice production will be well above the national demand for year 2019 including the estimated forecast of Yala 2019 ( approx.2.9 million mt).

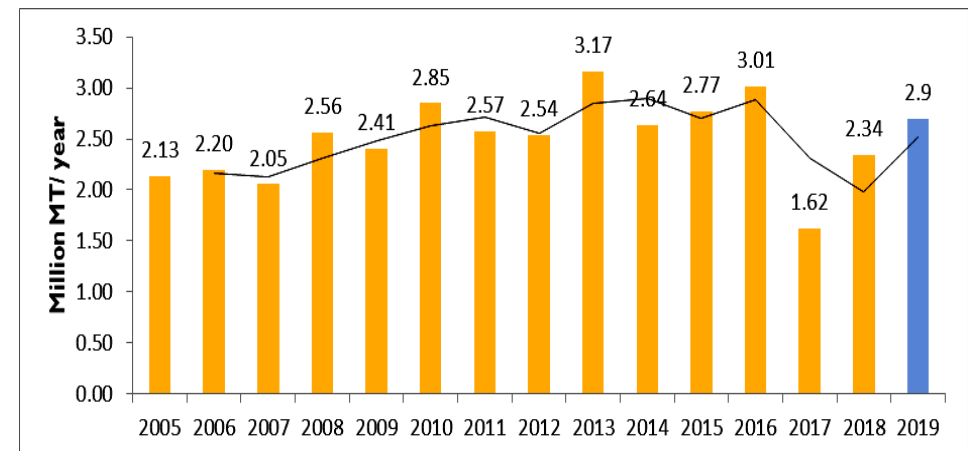
(Source: Socio Economic Planning Centre of Department of Agriculture)

Figure 4: First Quarter Food Prices 2016—2019



Source: Hector Kobekkaduwa Agrarian Research and Training Institute

Figure 5: Total rice production and estimated (2019) total rice production



# Fall Armyworm Impact



Fall Armyworm damage has been particularly reported in Eastern, Uva and North Central provinces. The districts mostly affected are Anuradhapura, Ampara, Badulla and Moneragala. As of mid February 2019, 41,880 ha of maize was affected.

The Food and Agriculture Organization (FAO) has shared background information with the Ministry of Agriculture and the Department of Agriculture on the biology and ecology of the FAW, on how to scout the pest, and on management strategies. The information includes a range of options available that don't use hazardous pesticides, minimize the use of chemical pesticides, and educate policy makers and farmers about agro-ecological approaches used by small-holder farmers in Latin America and being tested by small-holders in Africa and India as well.

[Field guides](#) and [Guidance Notes](#) about FAW Integrated Pest Management (IPM) strategies developed by responding to the outbreak in Africa, particularly by implementing Farmer Field Schools, have been disseminated to the Ministry of Agriculture.

Source: Socio Economic Planning Centre of  
Department of Agriculture and FAO



Damage in Badulla (Photo credit: Thushara Keerthiratne)

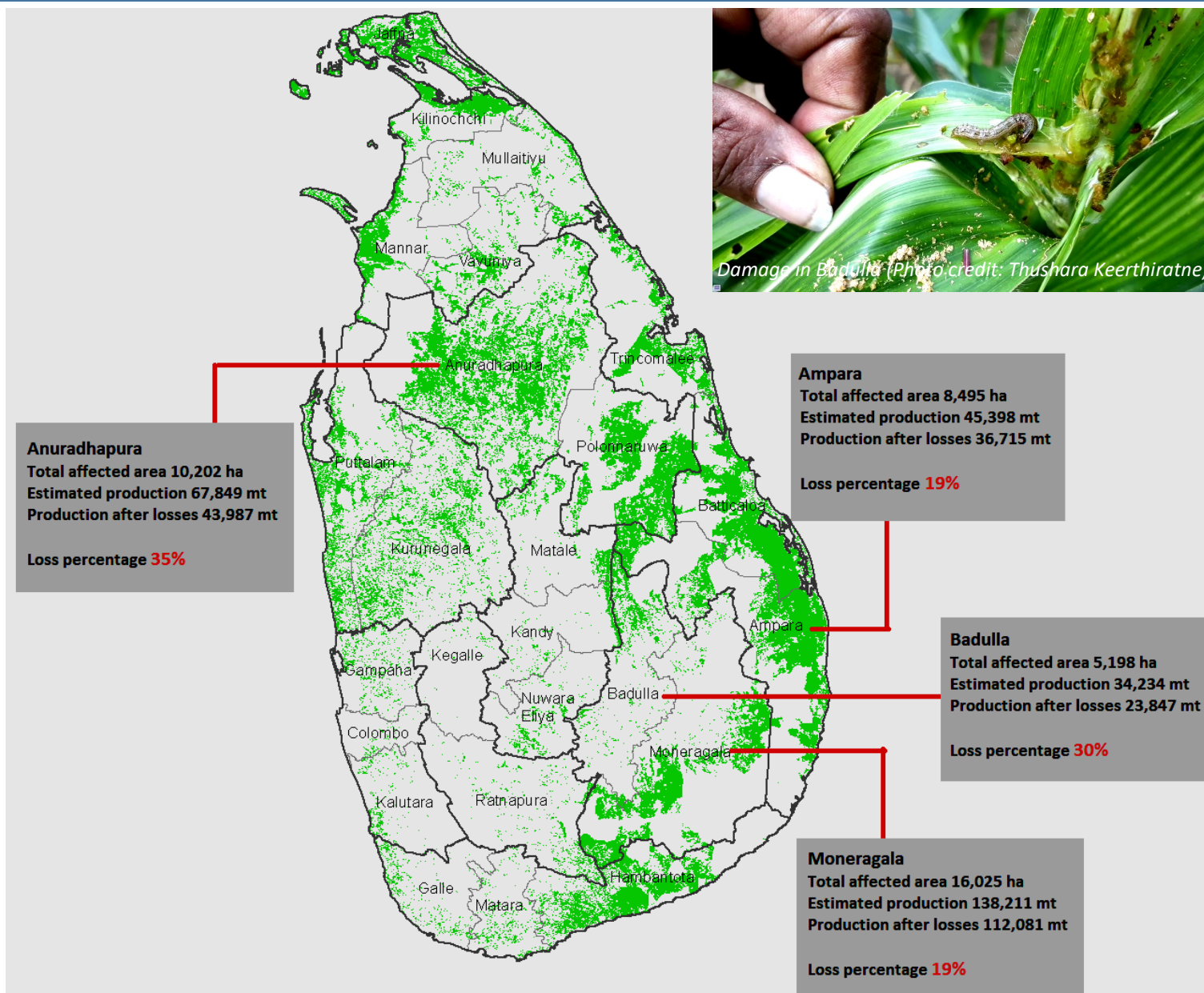


Figure 6: Statistics on fall armyworm damage

# Climate Outlook



Figure 8 shows the capacity of the major reservoirs and the status for the period of January to March 2019 indicating normal and well above status compared to the last two years, but below than year 2016. In order to plan for the better irrigated Yala season, it is important to have the water capacity above 50% at the time of the planting season (March).

## El-Niño status

A variety of models predict weak El Niño condition during March, April and May 2019. Weak El Niño conditions are present now and are expected to continue through the Northern Hemisphere spring 2019 (~50 –55% chance). Due to the expected weak strength, widespread or significant global impacts are not anticipated during March to May 2019.

## April, May and June

Based on the probabilistic multi model ensemble forecast using dynamical models from 13 global producing centers (GPC) for April to June, below normal rainfall can be expected in most parts of the country. Temperature forecast for the period from March to May will be above normal. Hence frequent heat weather advisories & precautions will be issued. Over the past three years country received extreme rain fall during the month of May which led to floods and landslides.

## Status of Reservoir Water Level - First Quarter 2016 -2019

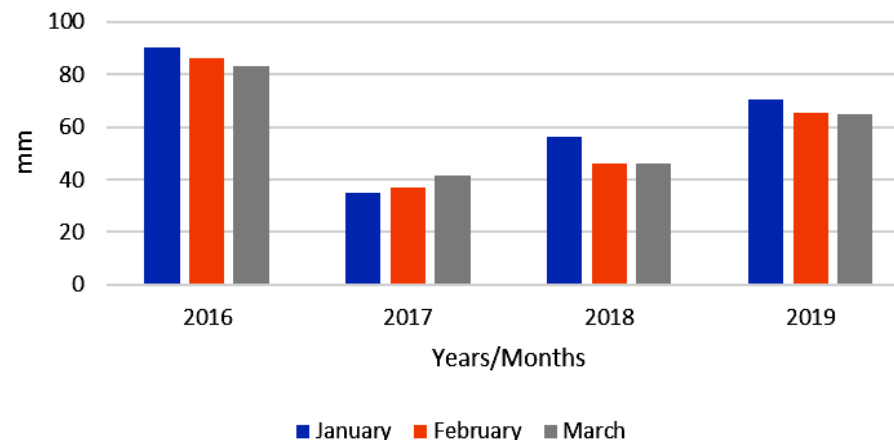


Figure 7: Comparison of Major Reservoir Water Status, Department of Irrigation

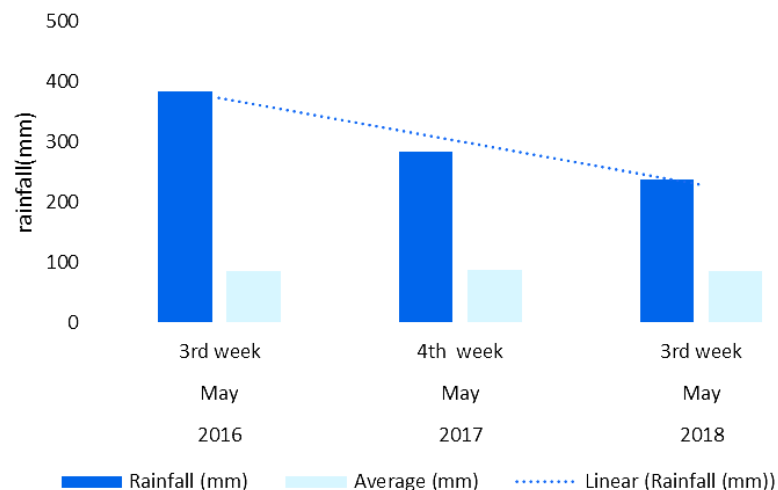


Figure 8: Weekly average Vs Rainfall received in Sabaragamuwa Province 2016—2018

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