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Resilient nations.

CLIMATE CHANGE SCENARIO IN SRI LANKA

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UNDP Climate Resilience Water Supply
Specialist

Ministry of Irrigation

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weather

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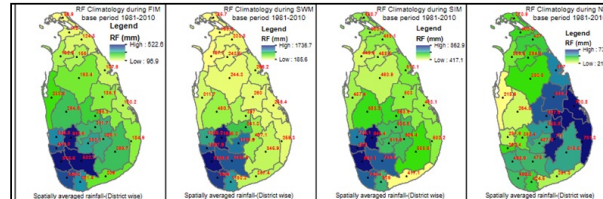
Weather is the atmospheric condition over a small area and a short period of time.



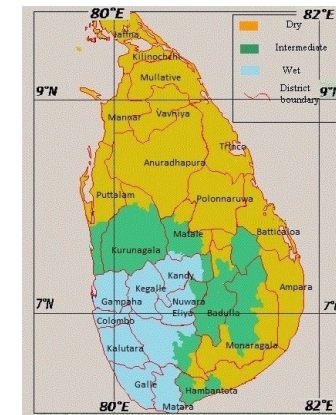
Climate

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Climate is the atmospheric condition over a large area and a long period of time



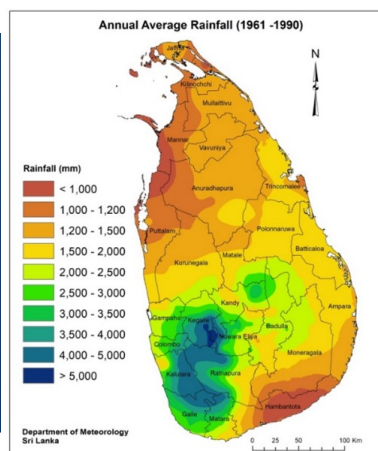
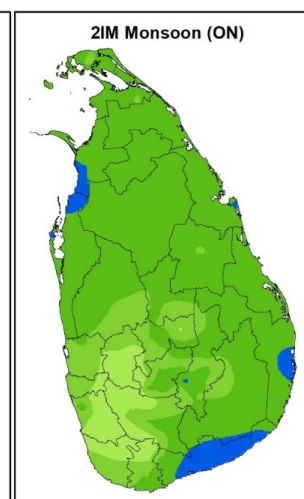
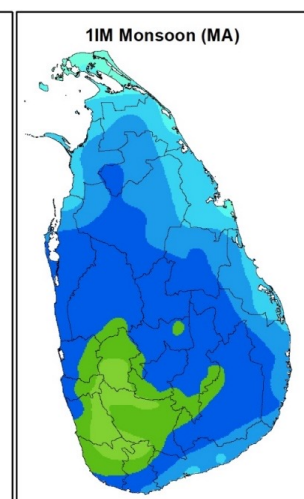
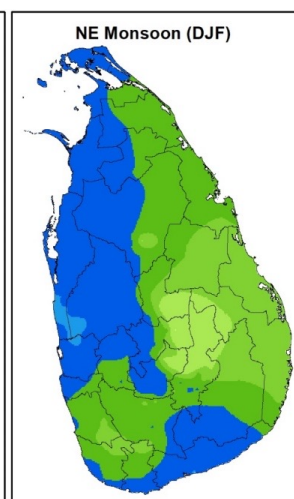
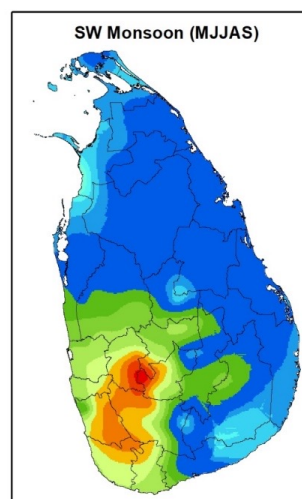
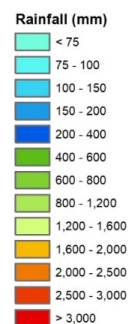
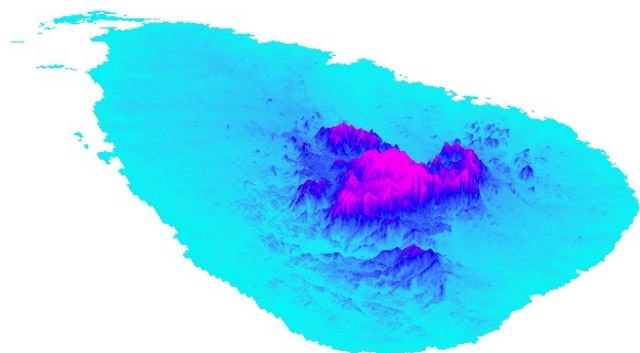
seasons



Zones

Climate Seasons In Sri Lanka

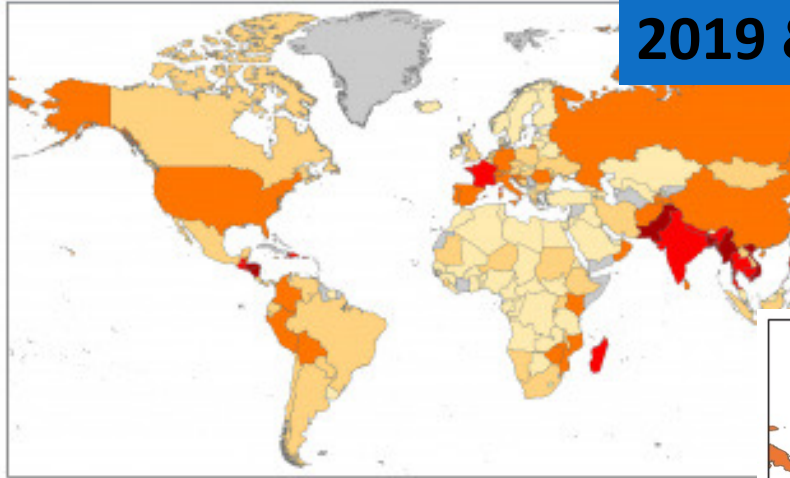
30 Year Climatological Average (1961-1990)



Seasons	Southwest Monsoon	Northeast Monsoon	First Inter-monsoon	Second Inter-monsoon
Period	May-Sep	Dec-Feb	Mar-Apr	Oct-Nov
Rainfall (Average)	556 mm	479 mm	268 mm	558 mm
% of Annual Average	30%	26%	14%	30%

Climate Risk Index 2019 & 2020

Climate Risk Index 2019



(2016)				Deaths per 100 000 inhabitants	Absolute losses (in million US\$ PPP)	Losses per unit GDP in %	Human Development Index 2017
1 (105)	Puerto Rico	1.50	2 978	90.242	82 315.240	63.328	-
2 (4)	Sri Lanka	9.00	246	1.147	3 129.351	1.135	76
3 (120)	Dominica	9.33	31	43.662	1 686.894	215.440	103
4 (14)	Nepal	10.50	164	0.559	1 909.982	2.412	149

Climate Risk Index: Ranking 1999 - 2017

www.germanwatch.org/en/cri

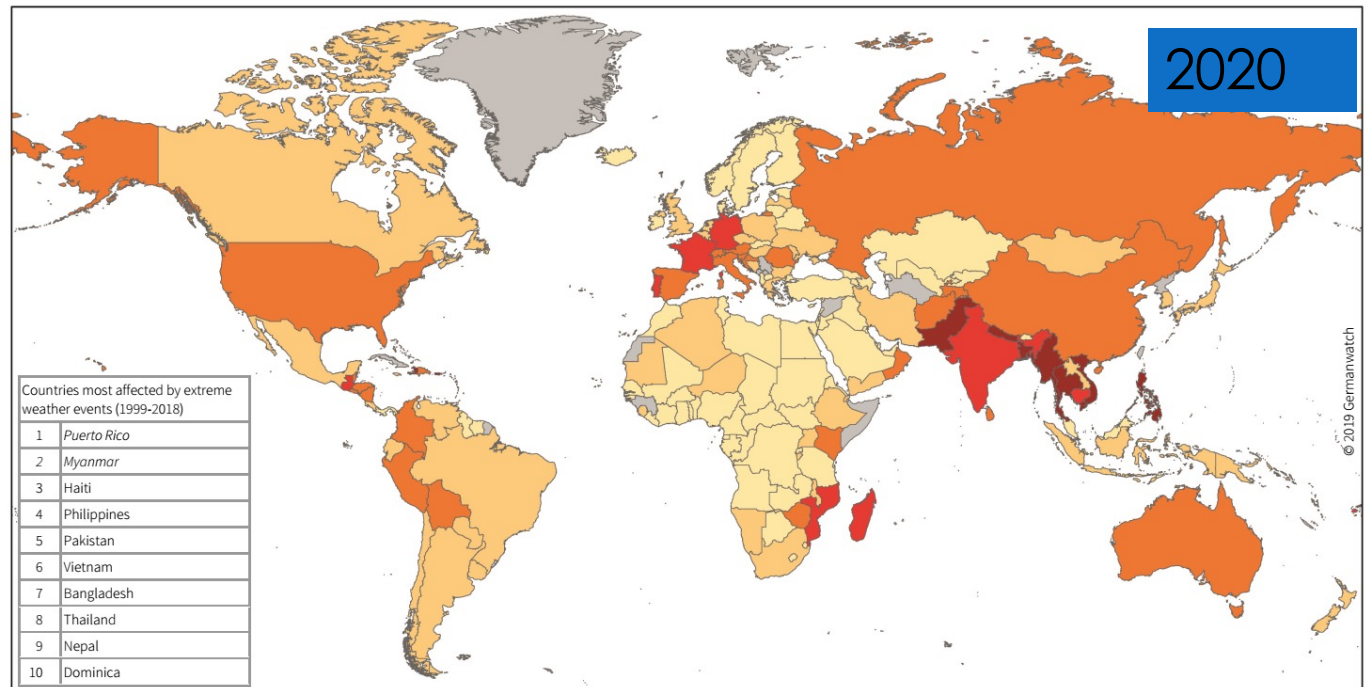
Global Climate Risk Index, ranks Sri Lanka as the 2nd most affected country by climate change in the world in 2019 (German Watch, 2019). Global Climate Risk Index, 2019

<https://www.germanwatch.org/en/16046>

Slight increase in 2020 upto 11th

[https://germanwatch.org/sites/germanwatch.org/files/20-2-](https://germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf)

01e%20Global%20Climate%20Risk%20Index%202020_14.pdf



Countries most affected by extreme weather events (1999-2018)	
1	Puerto Rico
2	Myanmar
3	Haiti
4	Philippines
5	Pakistan
6	Vietnam
7	Bangladesh
8	Thailand
9	Nepal
10	Dominica

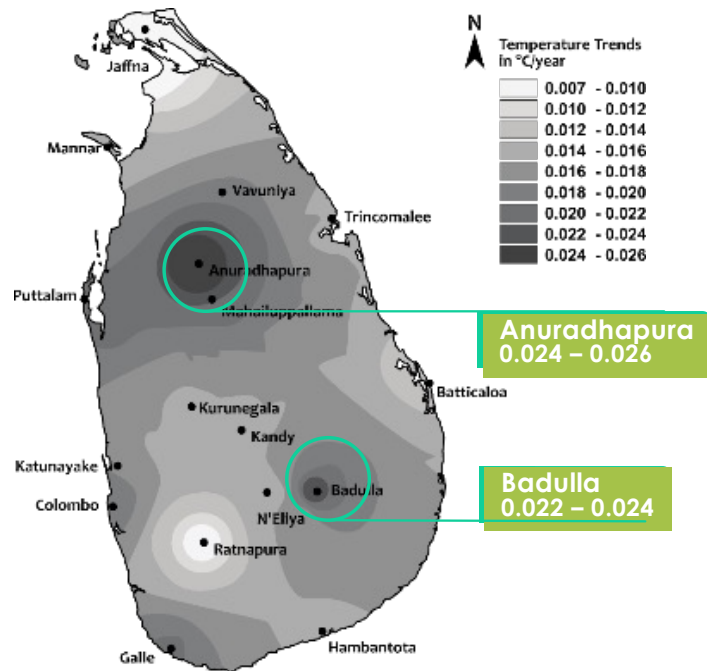
Italics: Countries where more than 90% of the losses or deaths occurred in one year or event

Climate Risk Index: Ranking 1999 - 2018

1 - 10 11 - 20 21 - 50 51 - 100 >100 No data

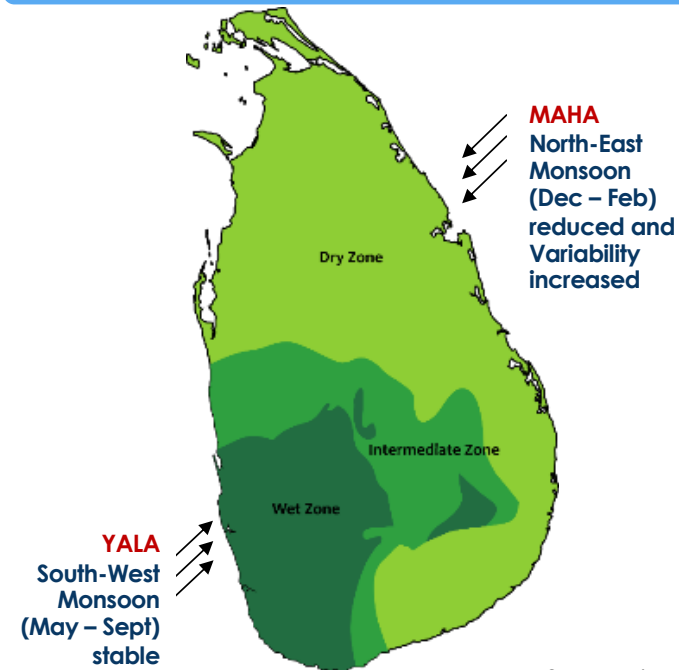
Observed Climate Change

Temperature: Warming trends 1961 - 2000



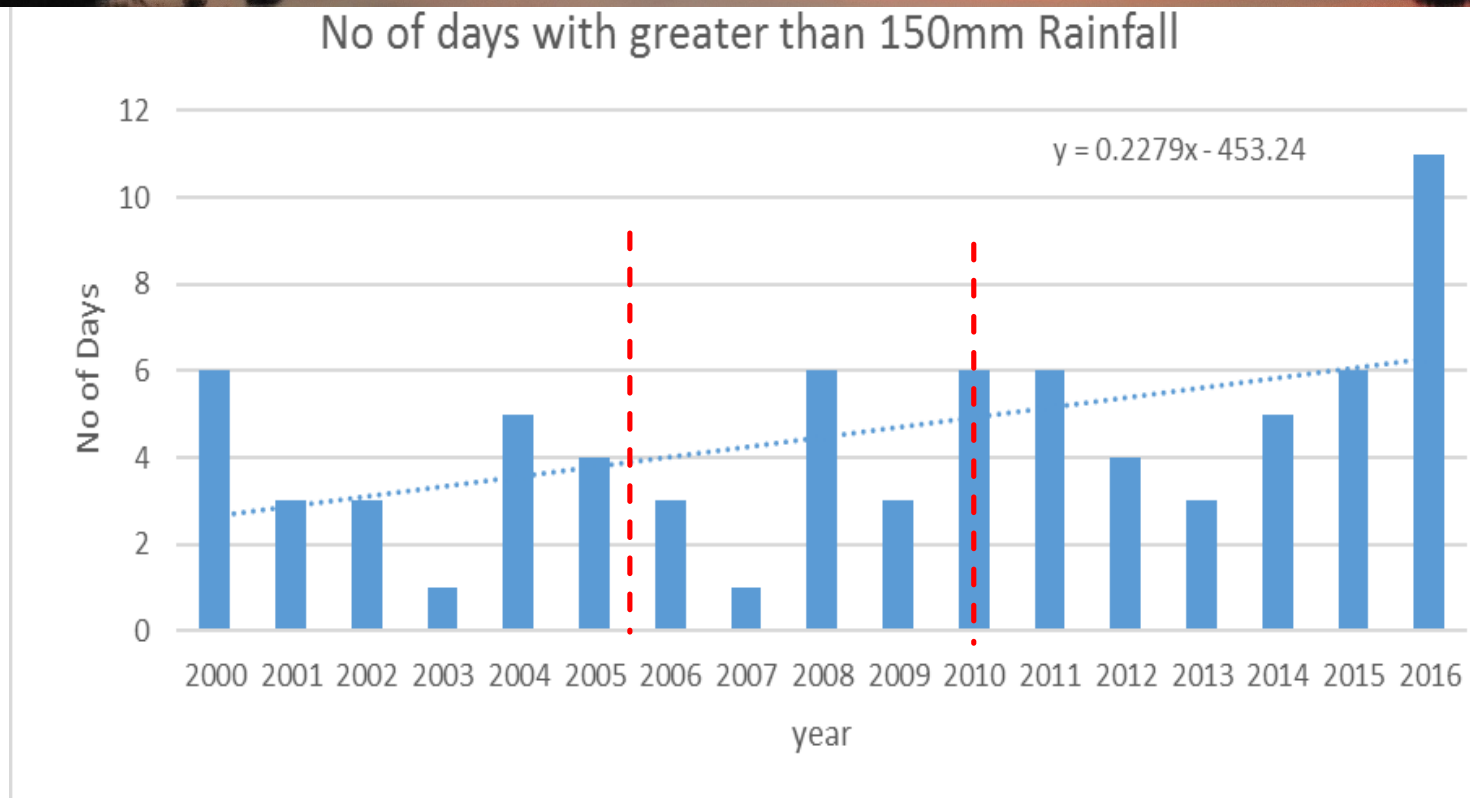
Source: Zubair et. al. 2005

Rainfall: No significant change in Mean Annual Rainfall Amount



Source: Eriyagama 2009

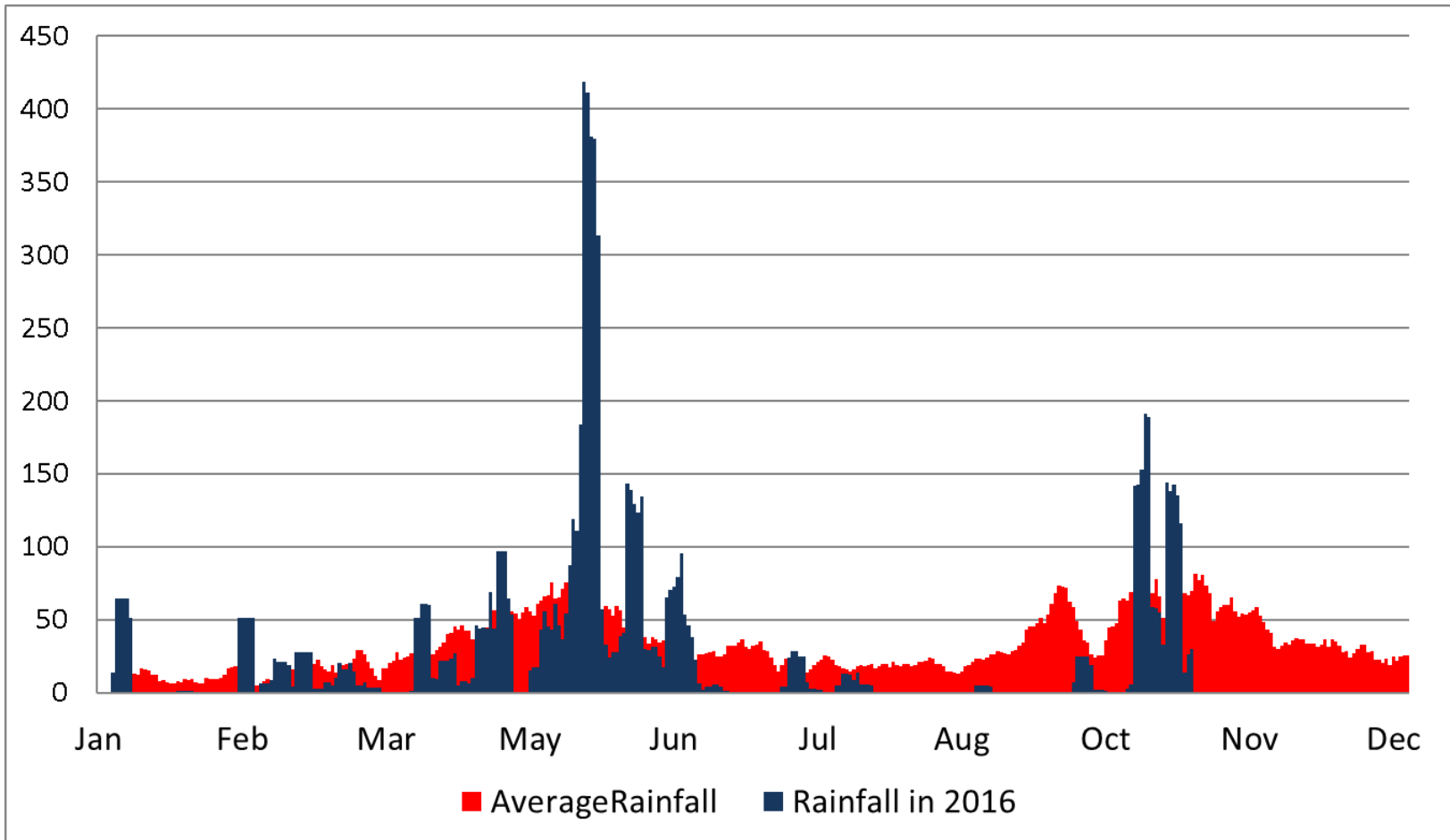
No of days with greater than 150mm Rainfall



Source: Met Department, 2016

COLOMBO

Comparison of 2016 rainfall with Average



Heavy Rain in mid-May and moderate rain in early June followed by a long dry period until mid-October

Source: Chandrapala, 2016

Service Delivery Systems

Mobile app

Anawaki

Meteorology Department

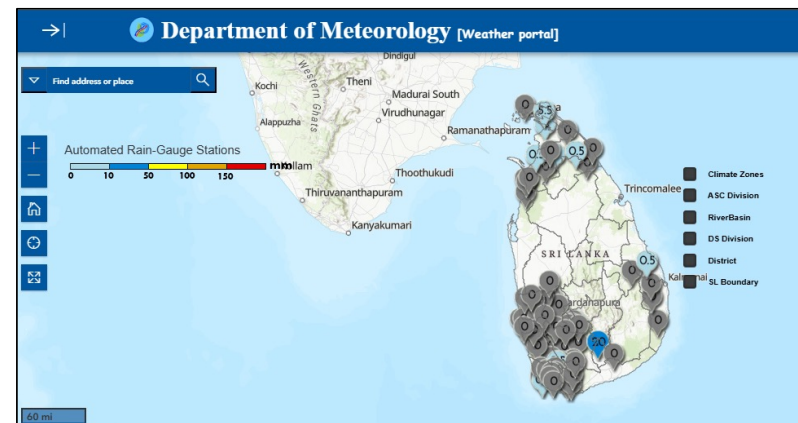
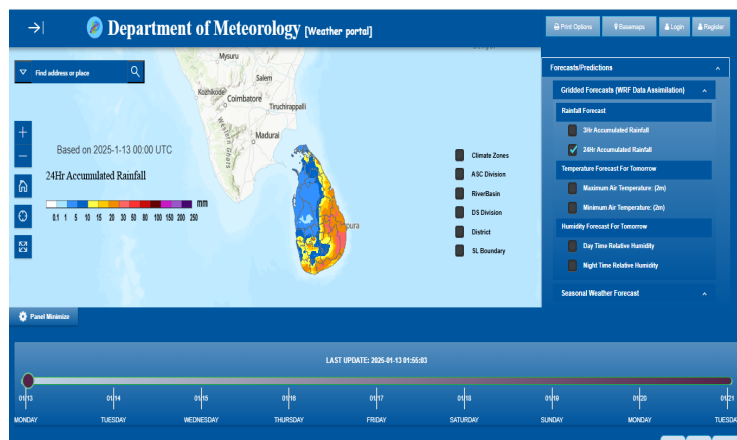
Play Store link - <https://play.google.com/store/apps/details?id=com.weather.portal.gov>

web GIS
portal

URL: <https://weather.meteo.gov.lk/>

CRIWMP

3 hourly/24hrs forecast/ real time rainfall
observations





Thank you