



भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय जल आयोग
जल विज्ञान मंडल



Government of India
Ministry of Jal Shakti,
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Water Commission
Hydrology Division

नीरवलम / NEERVALAM

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HD/Tech/Flood Forecasting/2020/2467-78

Date: 23/11/2020

Advisory for Chembarambakkam Reservoir and Poondi Reservoir

Reservoir Position:

Reservoir Name	Present Level/ FRL	Storage Filled Percentage (Full Storage in MCM)	Heavy Rainfall Advisory For Next 24 hrs (IMD)
Poondi Reservoir	41.163/42.672	54.19% (91.49)	Yes
Chembarambakkam Reservoir	25.166/26.03	79.64%(103.2)	Yes

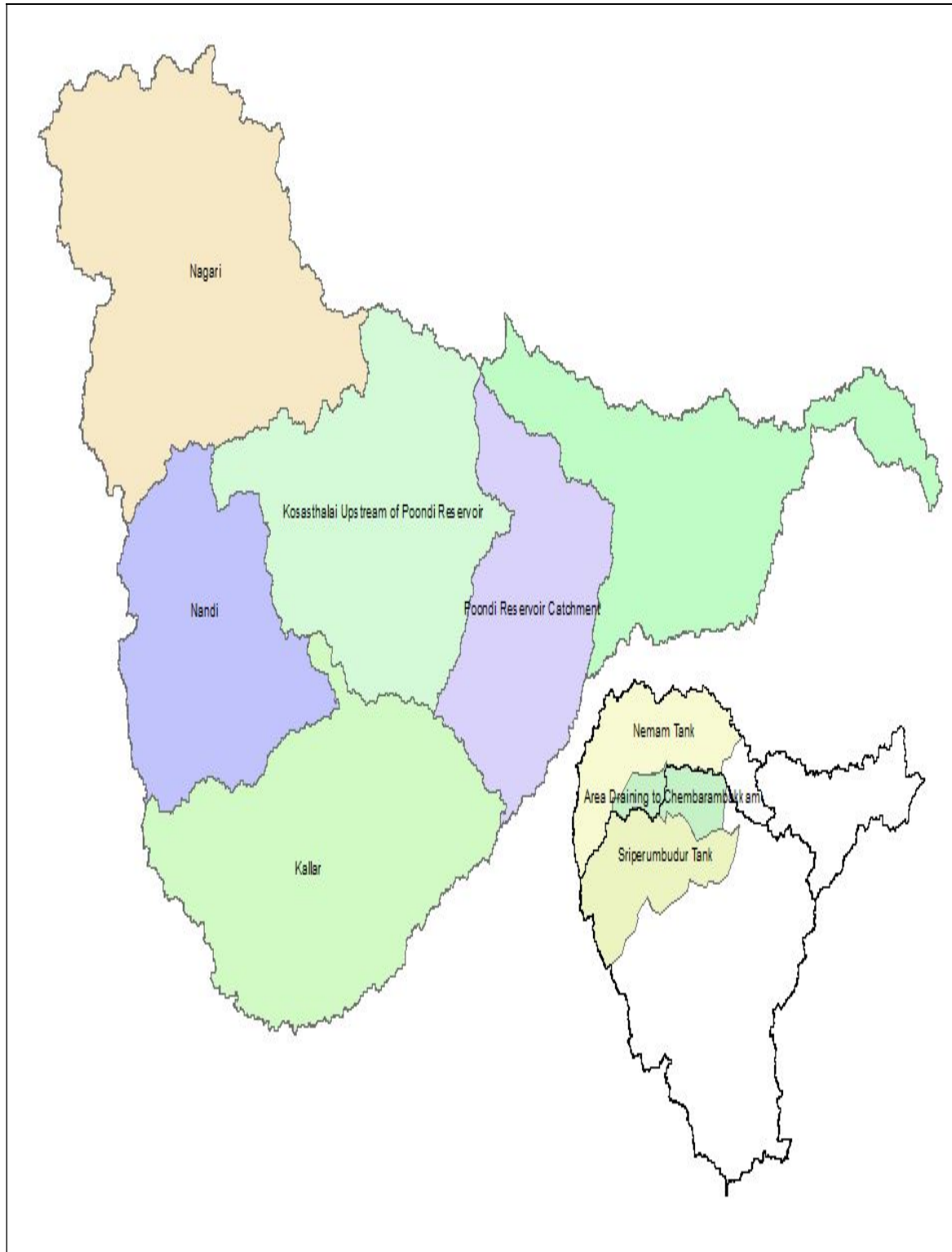
Catchment Situation:

Based on High Resolution Sentinel-1 Microwave satellite imageries as on 16th October, 28th October , 9th November and 21st November, (Available once in 12 days) the percentage water surface area in the small lakes in the catchment area of Adayar and Kosasthalai (Subcatchments given in figure) with reference to 2015 post floods is given in the table below.

S.NO	Name (Adayar Catchment)	Percentage filled (16 th October)	Percentage filled (28 th October)	Percentage filled (9 th November)	Percentage filled (21 st November)	Remarks
1	Catchment (Nemam Tank)	14.27%	13.97%	12.83%	36.17%	Will get saturated in 1-2 intense rainfall events
2	Area draining to Chembarambakkam Reservoir	31.83%	32.55%	32.66	56.75%	Will get filled in 1-2 very intense spell and contribute significant inflow

3	Sriperumbudur Tank	38%	50%	47%	73%	with get filled completely in one intense spell and generate good flow with intense rainfall
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S.NO	Name (Kosasthalai Catchment)	Percentage filled (16 th October)	Percentage filled (28 th October)	Percentage filled (9 th November)	Percentage filled (21 st November)	Remarks
1	Nagari (upto Bugga)	46.5%	62.87%	61.42%	59.71%	Will generate good flow with intense rainfall
2	Nandi (upto Ayalambedu)	9.74%	25.35%	20.77%	20.00%	Will get saturated in 1-2 intense rainfall events
3	Kallar (Upto Poiyapakkam)	4.22%	3.68%	3.42%	5.00%	Still dry. Will get saturated in 4-5 intense rainfall events
4	Kosasthalai upstream of Poondi Reservoir	10.28%	14.66%	15.60%	17.00%	Will get saturated in 2-3 intense rainfall events
5	Poondi Reservoir Catchment	50.83%	56.54%	52.65%	60.00%	Reservoir is getting inflows from kandaleru and would spill significant flows once catchment in saturated after 2-3 intense events as upstream lakes would be filled upto to 50-75 %

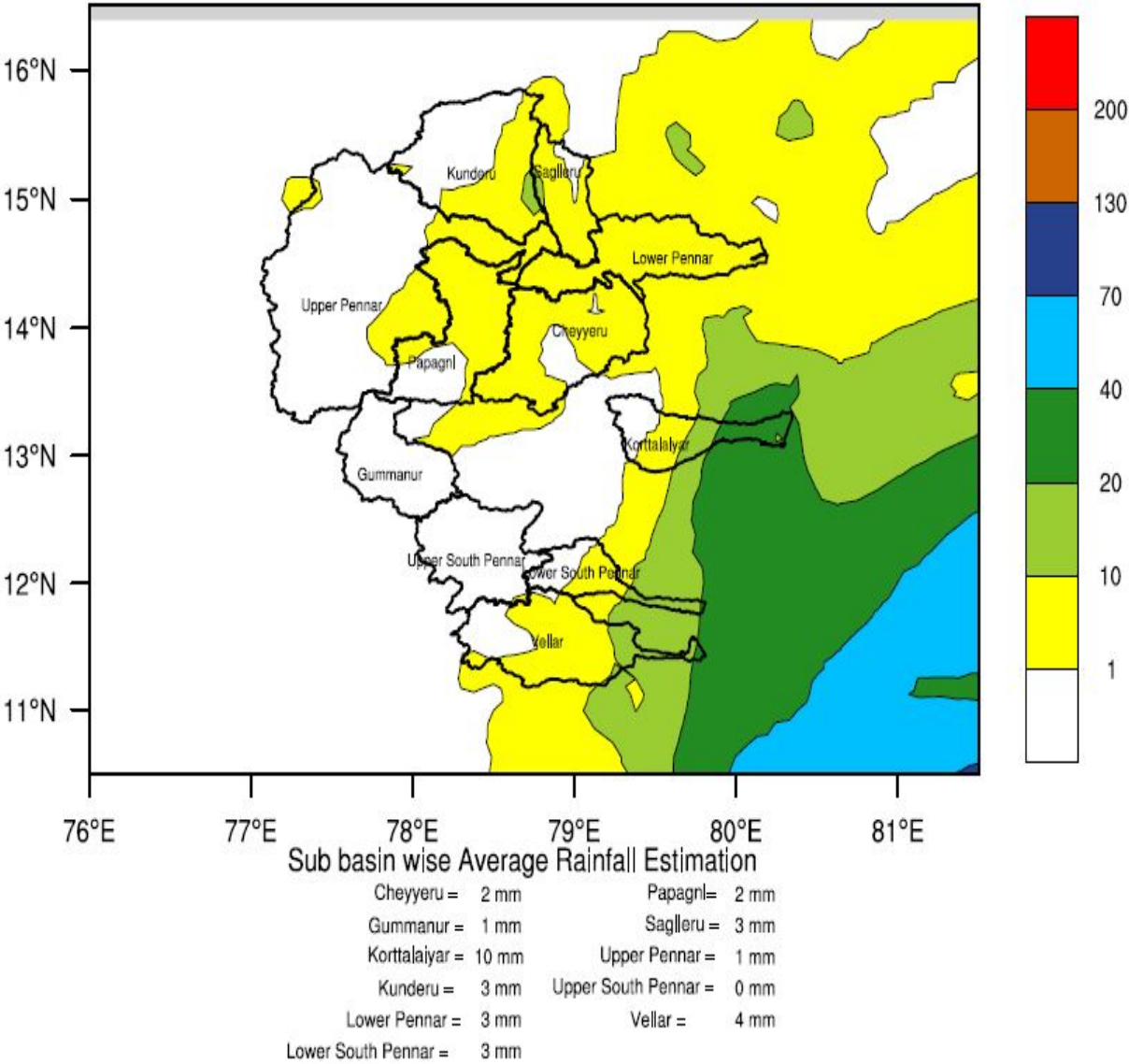


Subcatchments of Adayar and Kosasthalai Basins (Colored Catchments - Water bodies filled up situation is given)

REGIONAL MET CENTRE (RMC), CHENNAI

IMD GFS Rainfall(mm) Forecast (24hr)

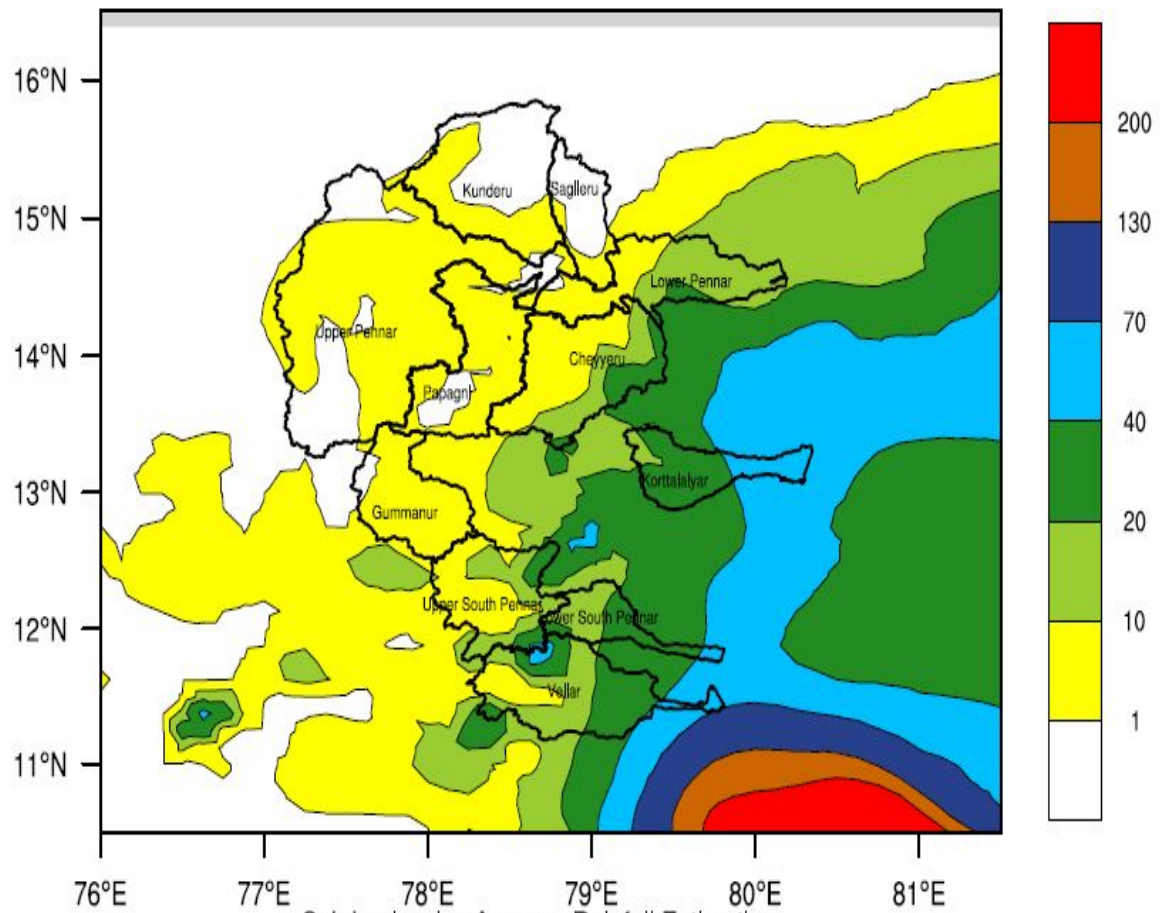
Day 1 FCST valid for: 24.11.2020 TILL 08:30 IST



REGIONAL MET CENTRE (RMC), CHENNAI

IMD GFS Rainfall(mm) Forecast (48hr)

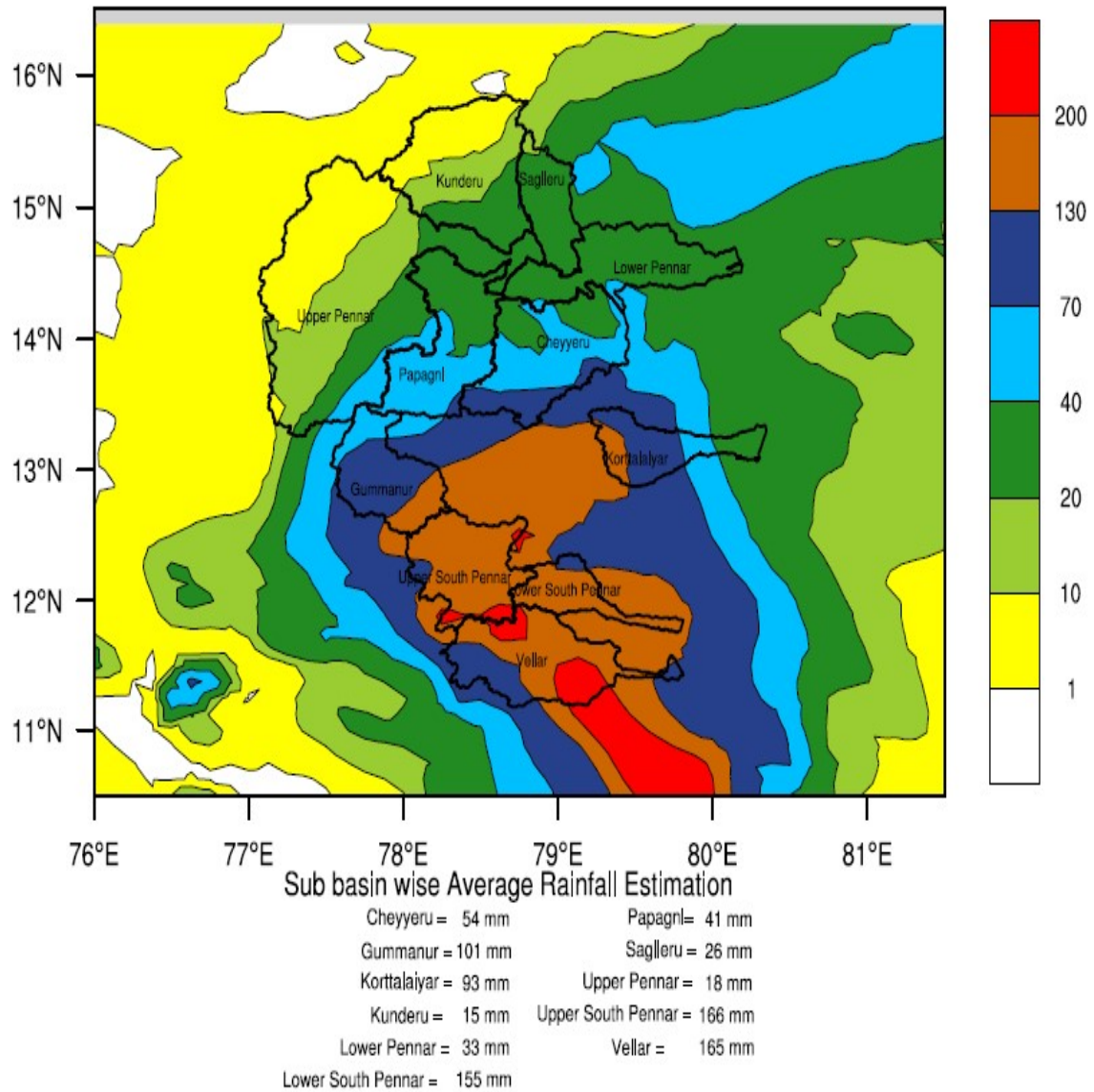
Day 2 FCST valid for: 25.11.2020 TILL 08:30 IST



REGIONAL MET CENTRE (RMC), CHENNAI

IMD GFS Rainfall(mm) Forecast (72hr)

Day 3 FCST valid for: 26.11.2020 TILL 08:30 IST



IMD Rainfall Forecast:

S. No.	BASIN NAME	SUBBASIN CODE/NAME	QPF (mm)		
			Day-1 (Valid till 0830 hrs IST of 24/11/2020)	Day-2 (Valid till 0830 hrs IST of 25/11/2020)	Day-3 (Valid till 0830 hrs IST of 26/11/2020)
1	East Flowing Rivers	Gummanur	0	0.1-10	76-100
		Upper South Pennar	0	11-25	>100
		Korttalaiyar	0.1-10	38-50	76-100
		Vellar	0.1-10	26-37	>100
		Lower South Pennar	0.1-10	26-37	>100
	Pennar	Kunderu	0.1-10	0	11-25
		Sagileru	0.1-10	0	26-37
		Upper Pennar	0	0	11-25
		Lower Pennar	0.1-10	11-25	38-50
		Papagni	0	0.1-10	38-50
		Cheyveru	0.1-10	11-25	51-75

S. No.	BASIN NAME	SUBBASIN CODE/NAME	INTENSITY (I) & SPATIAL DISTRIBUTION (D)					
			Day-1 (Valid till 0830 hrs IST of 24/11/2020)		Day-2 (Valid till 0830 hrs IST of 25/11/2020)		Day-3 (Valid till 0830 hrs IST of 26/11/2020)	
			I	D	I	D	I	D
1	East Flowing Rivers	Gummanur	MDry	DRY	L	SCT	VH	SCT
		Upper South Pennar	MDry	DRY	L	SCT	VH	FWS
		Korttalaiyar	M	ISOL	H	SCT	EH	FWS
		Vellar	M	ISOL	H	SCT	EH	FWS
		Lower South Pennar	M	ISOL	H	SCT	EH	FWS
2	Pennar	Kunderu	L	SCT	MDry	DRY	M	SCT
		Sagileru	L	SCT	MDry	DRY	M	FWS
		Upper Pennar	MDry	DRY	MDry	DRY	M	SCT
		Lower Pennar	L	SCT	M	SCT	M	FWS
		Papagni	MDry	DRY	L	SCT	M	FWS
		Cheyveru	L	SCT	M	SCT	H	FWS

Spatial Distribution of Rainfall		
DRY	Dry	No Station reported rainfall
ISOL	One or two Places	25% or less number of stations recorded rainfall 2.5 mm
SCT	At a few Places	26%-50% number of stations recorded rainfall 2.5 mm
FWS	At many Places	51%-75% number of stations recorded rainfall 2.5 mm
WS	At most places	76%-100% number of stations recorded rainfall 2.5 mm

Intensity of Rainfall					
MDry	NIL	0 cm	VL	Very Light Rainfall	Trace
L	Light Rainfall	Upto 1 cm	M	Moderate rainfall	02-06 cm
H	Heavy rainfall	07-11 cm	VH	Very Heavy rainfall	12-20 cm
EH	Extremely Heavy rainfall	21 cm or More			
ExH	Exceptionally Heavy Rainfall	When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 12 cm			


Advisory:

Chembarambakkam Reservoir:

- As many Sub-Catchments of Adayar are saturated and the water bodies upstream of Chembarambakkam about 70% filled in Sriperumbudur Area, independent area draining to Chembarambakkam and 36% filled in Nemam Tank Area by good rainfall spells up to 21st November.
- Where as in catchment area outside of Chembarambakkam reservoir in Adayar river are fully saturated and the water bodies are more than 75 % filled in some areas and completely filled in many areas. These area will generate very good inflows in the Adayar river.
- IMD has given rainfall prediction of (10-30mm) upto 24th Nov, (20-40 mm) upto 25th Nov and (70-130 mm) upto 26th Nov 2020 08:30 hrs. As catchment area of Adayar is saturated to good extent, it is advised that:
 1. Vigil has to be kept in reservoirs during high intensity rainfall as the catchments are nearly saturated and will generate good inflow which will fill up the small lakes in intense rainfall events and further intense rainfall will lead to filling Chembarambakkam reservoir leading to spill and flood type situation in rivers downstream.
 2. As the Chembarambakkam reservoir is 80% filled, Intense rainfall activity has be to seriously monitored and necessary alert needs to be given to downstream area / and authorities for possible release as part of preparedness activity.
 3. Necessary Cushion may be maintained in the reservoir, as the lakes upstream and reservoir is likely to get completely filled if forecasted rainfall realizes.
 4. The levels in Adayar may rise as catchment outside of Chembarambakkam is also saturated and the water bodies are almost completely filled which will rise the river levels incase intense rainfall activity happens

Poondi Reservoir:

- As many Sub-Catchments of Poondi are saturated and the water bodies upstream of Poondi reservoir is about 60% filled in Nagari tributary, about 20% filled in Nandi and downstream area , 5 % filled in Kallar tributary , and independent area draining to Poondi reservoir is 60% filled by rainfall spells up to 21st November . Kallar and Nandi tributaries are yet to be saturated and their water bodies will get gradually filled up during this rainfall spell and flow generation to the Poondi dam from these tributaries would not be considerable. The river will get significant inflows from Nagari triburary and independent area draining to Poondi reservoir as it is more saturated and water bodies are filled to considerable extent.
- IMD has given rainfall prediction of (10-30mm) upto 24th Nov, (20-40 mm) upto 25th Nov and (70-165 mm) upto 26th Nov 2020 08:30 hrs. As catchment area of Kosasthalai is saturated to good to moderate extent, it is advised that:
 1. Vigil has to be kept in reservoirs during high intensity rainfall as the catchments are saturated to moderate extent and generate good inflow to Poondi reservoir from Nagari and will fill small water bodies/lakes in Kallar and Nandi tributaries
 2. As the Poondi reservoir is 60% filled, Intense rainfall activity has be to seriously monitored and necessary alert needs to be given to Downstream area / and authorities for possible release as part of preparedness activity as the reservoir storage reaches 80%.


23.11.2020
अधिशाली अभियंता/Executive Engineer

To:

1. The Principal Secretary,/Commissioner, Revenue Administration, Disaster Management and Mitigation Department, Ezilagam, Chepauk, Chennai 600005 (Fax: 044-285902921, Email: com-ra@tn.nic.in, jclr@tn.nic.in)
2. The District Collector, Kancheepuram. (Email: collrkpm@nic.in, Phone:044-27237433, Fax: 044-27237789)
3. The District Collector, Thiruvallur. (Email: collrtlr@nic.in, Phone-044-27661600, 044-27662233, Fax-044-27661200)
4. The Engineer-In -Chief, WRO and Chief Engineer (General) PWD, Chepauk, Chennai – 600005 (Email: eicwrtdn@gmail.com, eicwrotn@yahoo.co.in)
5. The Chief Engineer, WRD, Chepauk, Chennai – 600005 (Email: cecrwropwd@yahoo.co.in)
6. The Director (FFM), Wing 7, West Block-2, R K Puram, New Delhi 66. (Email: fmdte@nic.in)
7. The Director, FMO, Regional Meteorological Centre, IMD, 50/6, College Road, Chennai – 600 006, (Fax: 044-28271581, Email : acwctp@gmail.com)
8. The Commandant, NDRF, Po-Suraksha Campus, Arrakonam District, Vellore, Tamil Nadu, Pin – 631152, (Ph: 04177-246594, Mobile 09442140269, Email: tn04-ndrf@nic.in)
9. The Executive Engineer, PWD, WRO, Kosasthalaiyar Basin Division, Thiruvallur (Email: eeksbndnwro@gmail.com)

Copy for favour of kind information to:

10. The Chief Engineer, CSRO, CWC, Coimbatore for information please.
11. The Superintending Engineer, CSRC, CWC, Bangalore for information please.
12. The Sub-Divisional Engineer, PPSD, Chennai for necessary action.

J. Jandhi
23.11.2020
अधिशाली अभियंता/Executive Engineer