

# Preparedness for response

## **NORTH-EAST MONSOON** **(NOVEMBER 2022 - FEBRUARY 2023)**

**Disaster Management Centre**

**10<sup>th</sup> November 2022**

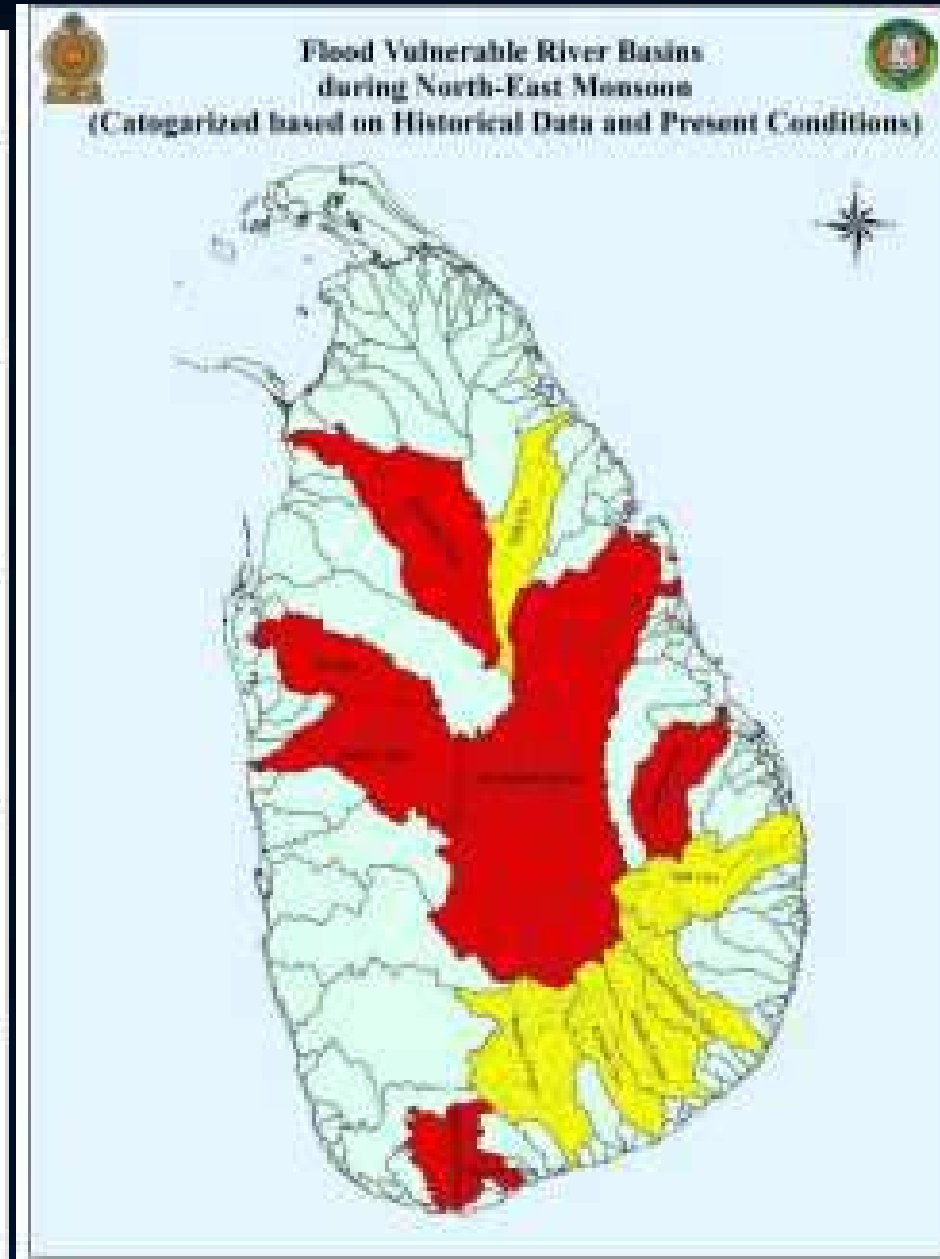


# Seasonal forecast for North East monsoon November 2022- February 2023

- Slightly near normal rainfalls are likely over most parts of the country except South West part and in Killinochchi and Jaffna districts where near normal rainfalls are likely during OND 2022.
- **However there is a possibility to develop low pressure systems depressions and cyclones in the Bay of Bengal** , which enhance the rainfall over the country during the month of December.
- La Nina condition is likely to develop in the Pacific Ocean during the OND 2022 season and may cause to reduce the rainfall over most parts of the country during October and November months.
- Seasonal predictability is limited due to synoptic scale systems such as lows and depressions etc. and intra-seasonal Oscillations such as Madden Julian Oscillations (MJO).



# Potential flooding – vulnerable river basins during North East monsoon







## India, Sri Lanka: Increased threat of flooding and landslides during northeast monsoon period in southern India and Sri Lanka through December Disruptions likely.

(Source: [HTTPS://CRISIS24.GARDA.COM/ALERTS/2022/11/INDIA-SRI-LANKA-INCREASED-THREAT-OF-FLOODING-AND-LANDSLIDES-DURING-NORTHEAST-MONSOON-PERIOD-IN-SOUTHERN-INDIA-AND-SRI-LANKA-T](https://crisis24.garda.com/alerts/2022/11/india-sri-lanka-increased-threat-of-flooding-and-landslides-during-northeast-monsoon-period-in-southern-india-and-sri-lanka-t) 01 NOV 2022 | 09:35 AM UTC)

### *Excerpts of the article*

- There is an increased likelihood of flooding, landslides, mudflows, and related disruptions across portions of Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu states and Puducherry Union Territory in southern India as well as **Sri Lanka during the northeast monsoon period through at least December.**
- Although the northeast monsoon does not usually commence in Sri Lanka until December, **rounds of heavy rainfall are also typical during an inter-monsoon season that takes place in November.**
- Tropical systems, including depressions and cyclones, pose an additional concern during the northeast monsoon period through December. These **systems occasionally form in the Bay of Bengal and can track northwestward over Sri Lanka and the Indian subcontinent, bringing destructive winds and rain.**

# INTERNATIONAL NEWS ITEM

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
















**India, Sri Lanka:** Increased threat of flooding and landslides during northeast monsoon period in southern India and Sri Lanka through December  
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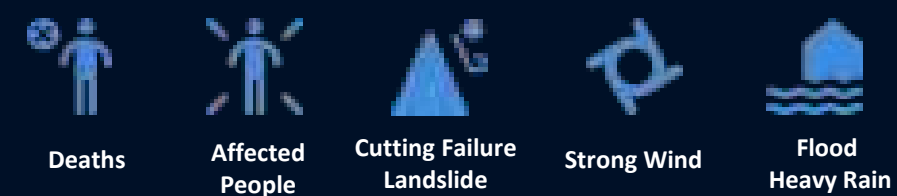
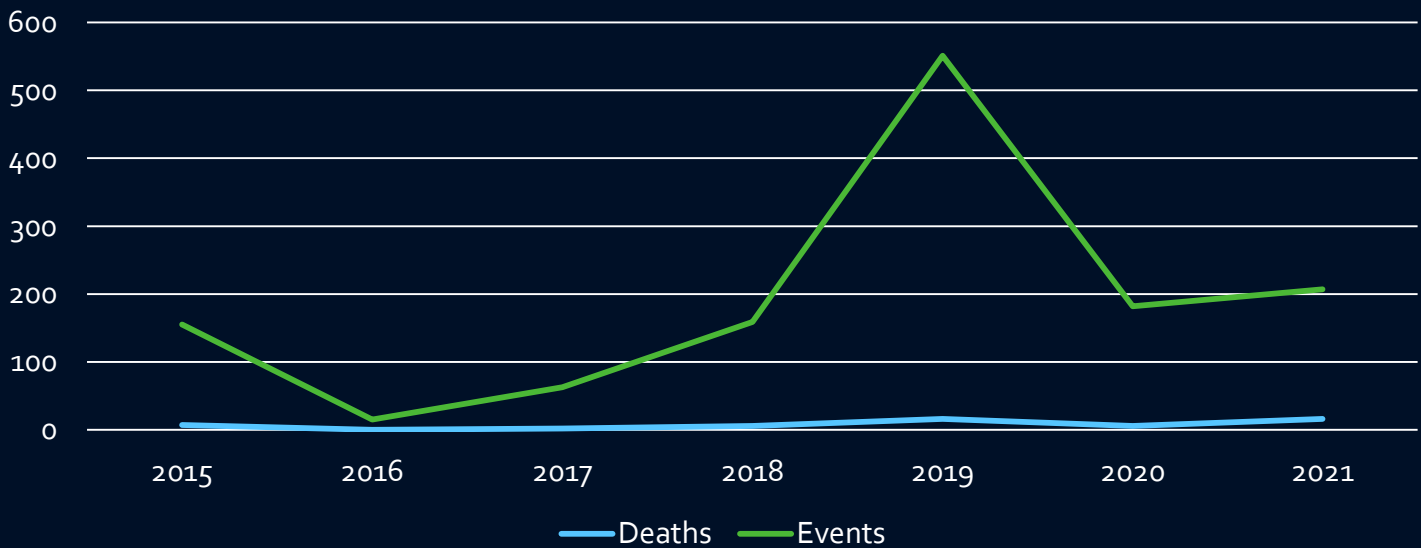
*Excerpts of the article*

- The potential for flooding is highest in low-lying communities near watercourses in recognized floodplains. Rivers such as the Kalu, Kelani, Mahaweli, Malvathu, Walawe, and Yan Oya in Sri Lanka, as well as their tributaries, regularly overflow their banks during periods of intense rainfall.  
Rain-induced mudflows and landslides pose a significant threat in elevated terrain such as Central Highlands in Sri Lanka; structures built on unstable, steep slopes face the greatest threat from this hazard.
- In addition to posing a direct threat to personal health and safety, flood and landslide events can trigger localized business, transport, and utility disruptions in Sri Lanka.
- The threat of disease outbreaks cannot be discounted during flooding episodes. Backflow from drains often mixes with floodwaters and can become trapped in open areas when inundations recede.

# Review of disaster impact analysis - North-East monsoon season from 2015-2021

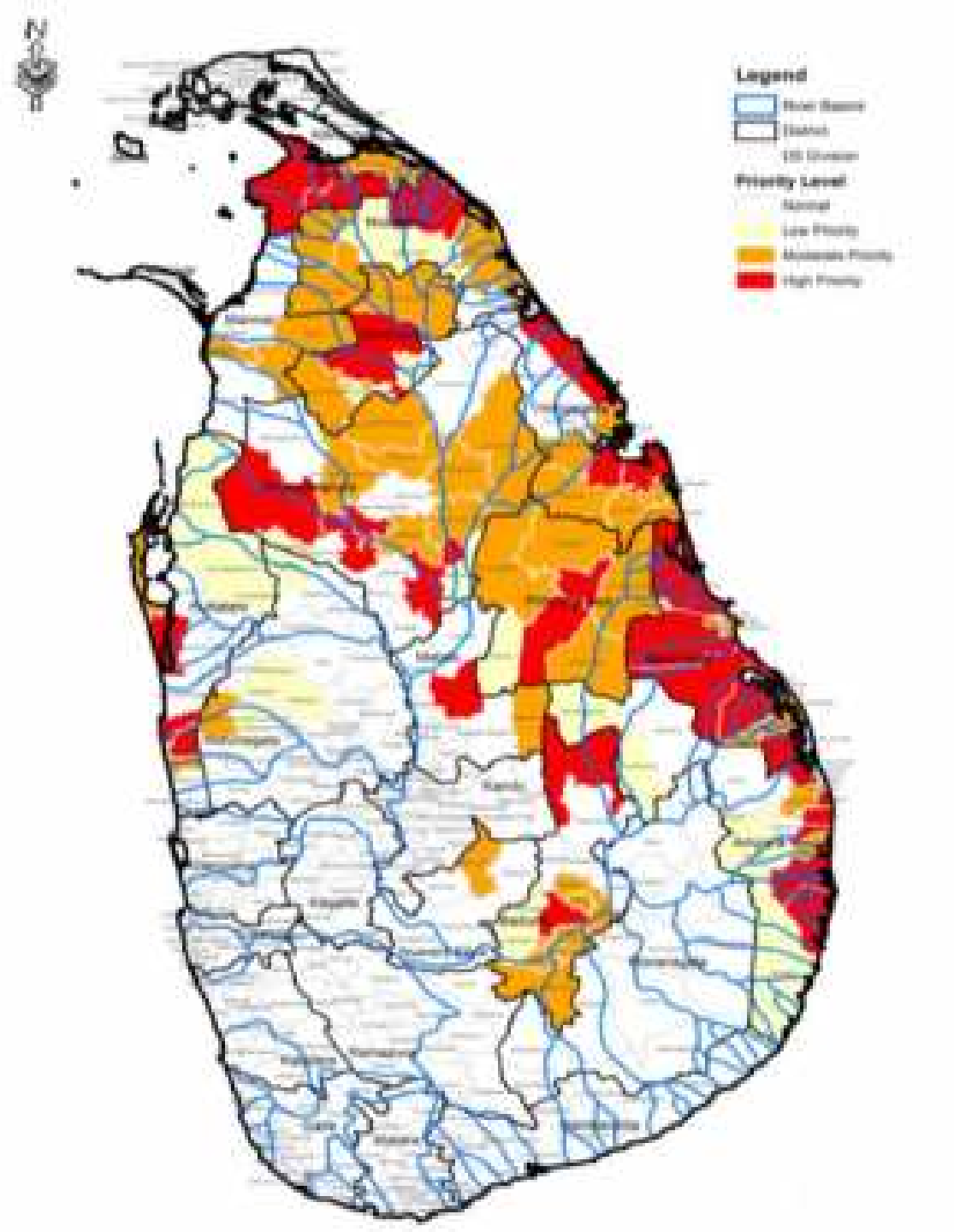
Year	2015			2016			2017			2018			2019			2020			2021		
Event	No of Events			No of Events			No of Events			No of Events			No of Events			No of Events			No of Events		
	7	0	346	3	0	148	5	0	23	25	0	434	114	4	2,716	17	3	192	16	1	407
	22	0	1,006	4	0	20	42	2	1,718	31	2	5,775	184	6	5,976	54	2	102,278	74	1	1,744
	137	7	184,197	10	0	8,480	37	1	53,402	103	4	200,317	253	10	454,533	111	1	159,580	117	14	267,508
<b>TOTAL</b>	<b>155</b>	<b>7</b>	<b>185,046</b>	<b>15</b>	<b>0</b>	<b>8,638</b>	<b>63</b>	<b>2</b>	<b>54,284</b>	<b>159</b>	<b>6</b>	<b>206,526</b>	<b>551</b>	<b>16</b>	<b>463,225</b>	<b>182</b>	<b>6</b>	<b>262,050</b>	<b>207</b>	<b>16</b>	<b>269,659</b>

Events and Deaths



Source : DesInventar

# Predicted **worst-case** scenario for North-East Monsoon 2022



Source : Historical analysis based on last ten years data  
[www.desinventar.lk](http://www.desinventar.lk)



# Predicted “most likely” scenario for North-East Monsoon 2022

Based on;

- ✓ Actual impact of previous years (past year analysis/ review)
- ✓ Department of Meteorology forecast (i.e. slightly **near normal rainfall**)

District	Likely scenario		
	Safety locations	Families	Persons
Trincomalee	50	3,800	14,500
Matale	8	160	520
Anuradhapura	70	4,800	17,500
Polonnaruwa	80	5,200	21,500
Badulla	90	2,900	9,600
Vavuniya	120	15,400	49,500
Nuwara Eliya	60	1,020	3,900
Ampara	50	3,900	9,600
Puttalam	10	400	1,200
Batticaloa	150	24,500	93,000
Mulaitivu	22	2,100	8,100
Kilinochchi	30	3,200	9,500
<b>Total</b>	<b>740</b>	<b>67,380</b>	<b>238,420</b>

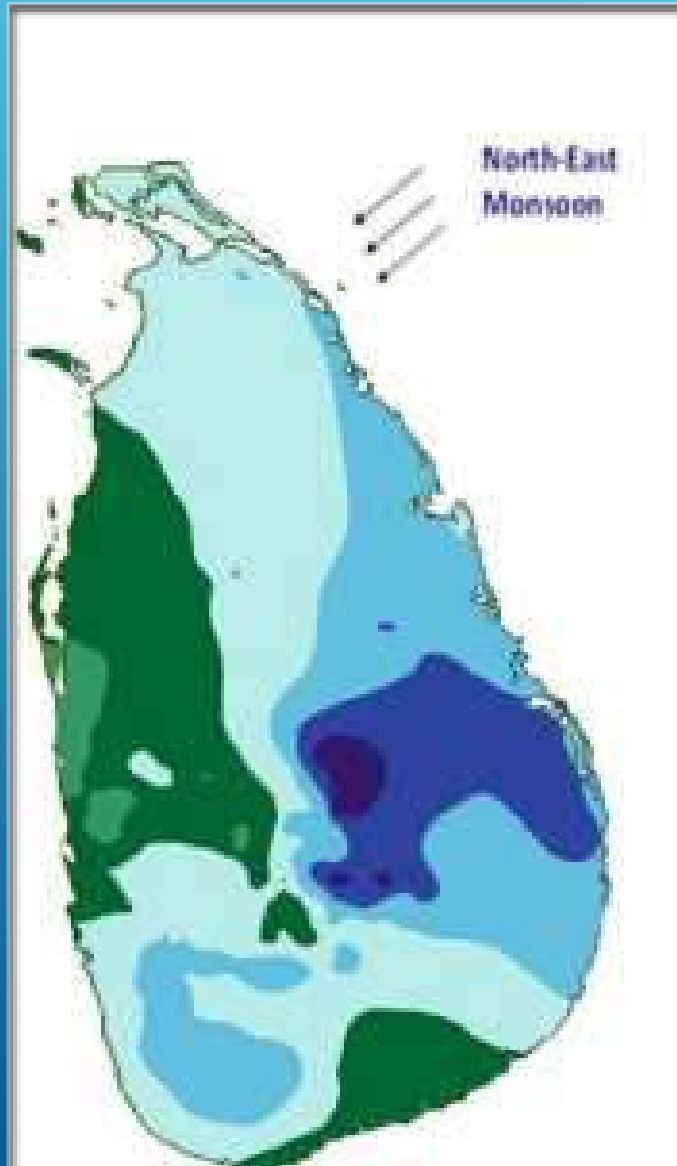
# Preparedness and planning for North East monsoon 2022 - 2023



ESTIMATION OF WIND SPEED	
10 min	10000
15 min	10000
20 min	10000
30 min	10000
45 min	10000
60 min	10000
90 min	10000
120 min	10000
180 min	10000
240 min	10000
360 min	10000
480 min	10000
720 min	10000
1080 min	10000
1440 min	10000
2160 min	10000
2880 min	10000
4320 min	10000
6480 min	10000
9720 min	10000
14580 min	10000
21870 min	10000
32700 min	10000
49050 min	10000
73575 min	10000
110362.5 min	10000
165543.75 min	10000
248315.625 min	10000
372473.4375 min	10000
558710.15625 min	10000
838065.234375 min	10000
1257097.8515625 min	10000
1885646.77734375 min	10000
2828470.166015625 min	10000
4242705.24878125 min	10000
6364057.873171875 min	10000
9546086.809765625 min	10000
14319130.2146484375 min	10000
21478695.32197265625 min	10000
32218042.9829590625 min	10000
48327064.4744386875 min	10000
72490596.71165803125 min	10000
108735895.067487046875 min	10000
163103842.6012305703125 min	10000
244655763.90184585546875 min	10000
367033645.852768783203125 min	10000
548550468.7791531748046875 min	10000
822825703.16873026220703125 min	10000
1234238554.75309539331046875 min	10000
1851357832.129643089965625 min	10000
2777036748.1944646349484375 min	10000
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6248332683.4375384286340625 min	10000
9312000000.0000000000000000 min	10000

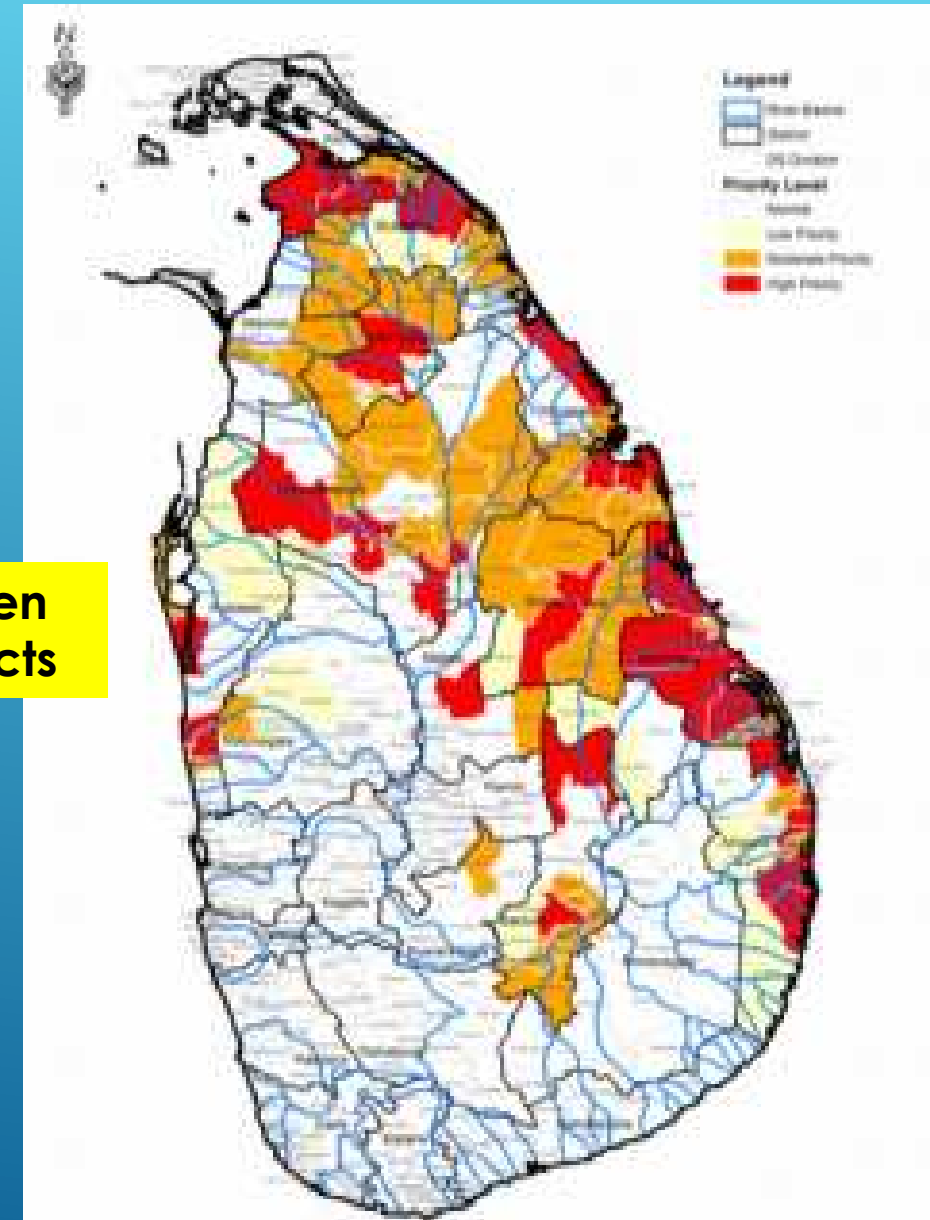


# NORTH EAST MONSOON IMPACT - IDENTIFIED DISTRICTS



Ampara  
Anuradhapura  
Badulla  
Batticaloa  
Jaffna  
Kandy  
Kilinochchi  
Kurunegala  
Mannar  
Matale  
Mullaitivu  
Pollonaruwa  
Puttlam  
Trincomalee  
Vavuniya

Fifteen districts



# PREPAREDNESS PLANNING – NORTH EAST MONSOON 2022

- ▶ Discussed matters regarding planning and preparation activities for NEM and guidance provided
- ▶ National level meeting with stakeholders on **10<sup>th</sup> November 2022** – linking all 25 DDMCUs and local government officials via Zoom (online)
- ▶ **Scenario Based Response Plans** prepared
- ▶ **Monsoon Operational plans** reviewed and updated
- ▶ District/ Divisional preparedness planning discussions in progress
- ▶ Mitigation activities and proposed preventive measures being carried out to reduce the impact from floods (grass root level activities)
- ▶ Potential disruptive locations, impassable roads, other critical facilities identified and mapped
- ▶ Emergency communication tested and installed
- ▶ SAR teams identified and to be deployed based on NEM forecast
- ▶ Regional resource hubs of Tri forces, Police and other institutions identified
- ▶ Pre-positioning of response and relief items being coordinated



District	District Monsoon Meeting Completed	Divisional Monsoon Meeting Completed	Pending District Monsoon Meeting	Pending Divisional Monsoon Meeting
Trincomalee	-	4	-	-
Matale	1	2	-	1
Mannar	-	1	1	2
Kilinochchi	-	4	-	-
Batticaloa	-	3	-	1
Vavuniya	-	2	1	1
Anuradhapura	-	-	1	-
Ampara	-	4	1	1
Kurunegala	-	1	-	3
Mullaitivu	-	5	1	-
Nuwara Eliya	-	-	-	3
Kandy	-	-	-	1

# Conduct of key government school examinations – during the North East monsoon season 2022 - 2023

The Education Ministry has announced the dates for conducting the Grade Five scholarship examination and the General Certificate of Education (GCE) Advanced Level (A/L) examination.

Accordingly, the ministry has fixed the dates for conducting the

- ❑ Scholarship examination on December 18 (Monday)

and

- ❑ A/L examination from January 23, 2023 to February 17, 2023.

## SUMMARY OF SAR TEAM DEPLOYMENTS (NORTH EAST MONSOON -2022)

District	Deployment Details					
	Teams					
	A	N	A/ F	CG	CSD	TOTAL
Jaffna	02	06	01	-	01	10
Vavunia	-	02	01	-	01	04
Batticaloa	04	07	01	01	01	14
Mannar	01	06	-	-	01	08
Polonnaruwa	02	08	01	-	02	13
Ampara	02	02	01	01	02	08
Trincomalee	02	14	02	01	01	20
Kilinochchi	01	03	-	-	01	05
Mullaitivu	01	08	-	-	01	10
Kurunegala	02	02	-	-	01	05
Kandy	03	01	-	-	02	06
Nuwara Eliya	03	01	-	-	01	05
Monaragala	01	02	-	-	02	05
Anuradhapura	01	03	01	-	01	06
Matale	01	01	-	-	01	03
Badulla	-	01	01	-	01	03
Puttalam	02	16	-	01	01	20
<b>TOTAL</b>	<b>28</b>	<b>83</b>	<b>09</b>	<b>04</b>	<b>21</b>	<b>145</b>

**SUMMARY OF SAR TEAM DEPLOYMENTS (NORTH EAST MONSOON -2022)**

District	Deployment Details					
	Boats					
	A	N	A/F	CG	CSD	TOTAL
Jaffna	01	06	-	-	-	07
Vavunia	-	02	-	-	-	02
Batticaloa	04	07	03	01	01	16
Mannar	-	04	-	-	-	04
Polonnaruwa	07	06	01	-	-	14
Ampara	-	02	01	01	-	04
Trincomalee	09	07	-	01	-	17
Kilinochchi	03	03	-	-	-	06
Mullaitivu	02	07	01	-	-	10
Kurunegala	02	02	-	-	-	04
Kandy	01	01	-	-	-	02
Nuwara Eliya	01	01	-	-	-	02
Monaragala	01	02	-	-	-	03
Anuradhapura	03	04	02	-	-	09
Matale	-	01	-	-	-	01
Badulla	-	01	-	-	-	01
Puttalam	03	12	01	01	-	17
<b>TOTAL</b>	<b>37</b>	<b>68</b>	<b>09</b>	<b>04</b>	<b>01</b>	<b>119</b>



# Emergency equipment/items requirement for districts (NEM 2022-2023)

Items	Jaffna	Kilinochchi	Vavuniya	Mulathivu	Mannar	Anuradhapura	Polonnaruwa	Kurunegala	Puttalam	Mathale	Ampara	Batticaloa	Trincomalee	Monaragala	Badulla	Nuwara Eliya
Boat with Engine												14				
OBM															04	
Boat															02	
Catamaran	02						15					10				
Mana Kethi							100		50							
Mana Kethi							100									
Safety Jacket	250			300			200			250		500	150		25	
Tarpaulin Sheet	250	400	150	300	1000			300	20	150		200	500			250
Chain Saw	02			06			21		03	05	05	10	05	05	10	
Chain for Chain Saw					02											
Polisak Bag	5000	3100	2000	15000	3000	10000	5000	500	10000	4500	20000	9000	10000		700	2000
Rescue Bag												500				
Rain Coat			350	300		500	170	250	40	1000	5000		10	50		250
Boot					10	500	280	250	40	1000	500		50	50	500	250
Mega Phone							19	05				100	05		25	

# Emergency equipment/items requirement for districts –(NEM 2022-2023)

Items	Jaffna	Kilinochchi	Vavuniya	Mulathivu	Mannar	Anuradhapura	Polonnaruwa	Kurunegala	Puttalam	Mathale	Ampara	Batticaloa	Trincomalee	Monaragala	Badulla	Nuwara Eliya
Tent				60	05		125			25		100		10	100	
Torch				100			55			20						
Wheel Barrow							05			10						
Rope							06			04		20	03		15	
Mamoty					10		100			20					10	
Generators				10			12					05	01		15	
Temporary Toilets (Mobile)					20											
Shovel					15		10									
Cross Cut Saw													10			
Glows													50		1000	
Nylon Rope													03			
Safety Bags “Apada Malla”													500			
Safety Helmet with Light									20				20			
Safety Bags													500			
Manila Rope													02			
Search Lights									10			60	05		50	







*Thank you*