

PREPAREDNESS PLANNING AND READINESS FOR RESPONSE

South West monsoon 2022

Disaster Management Centre

State Ministry of Disaster Management, Sri Lanka

6th May 2022



Southwest-monsoon (May - September)

During the Southwest monsoon period a nearly or the Southeastern part of the country. The amount of rainfall during the month varies between 50 mm to over 3000 mm.

The southwest monsoon rains usually affect the following districts:



Monsoon

ACTIVE

ARE YOU READY FOR THE MONSOON RAINS?

If you are to be safe in this, read carefully.

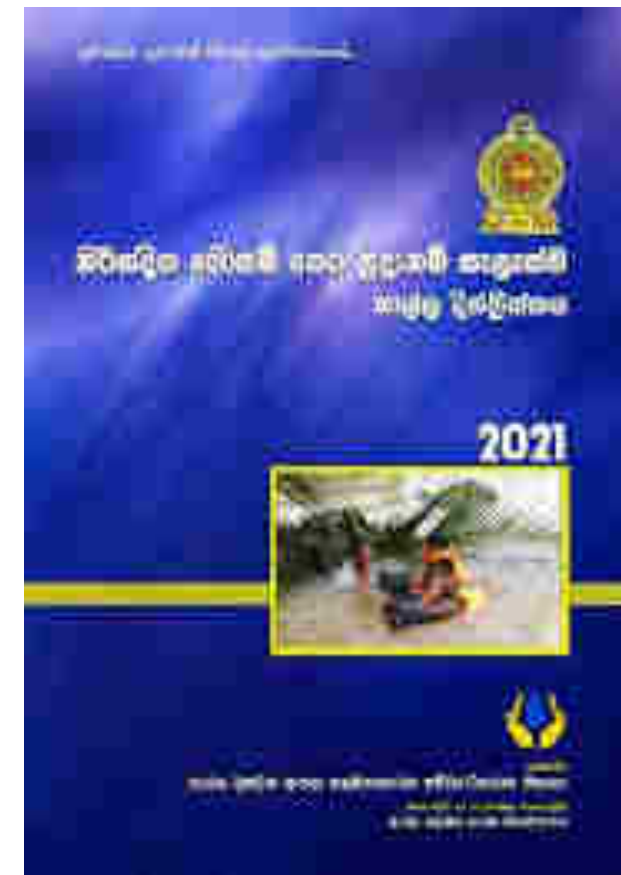
- 1. Check the weather forecast.
- 2. Prepare your house for the rains.
- 3. 117
- 4. Check the weather forecast.
- 5. Prepare your house for the rains.
- 6. 117



Presentation outline









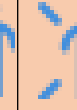








- **Review of South West monsoon – Historical analysis**
- **Seasonal forecast for South West monsoon (SWM) 2021**
- **Outlook and forecast for South West monsoon 2022**
- **Potential impact of South West monsoon 2022**
- **Potential threats and challenges**
- **Preparation for South West monsoon (SWM) 2022**
- **Stakeholder support required for 2022**

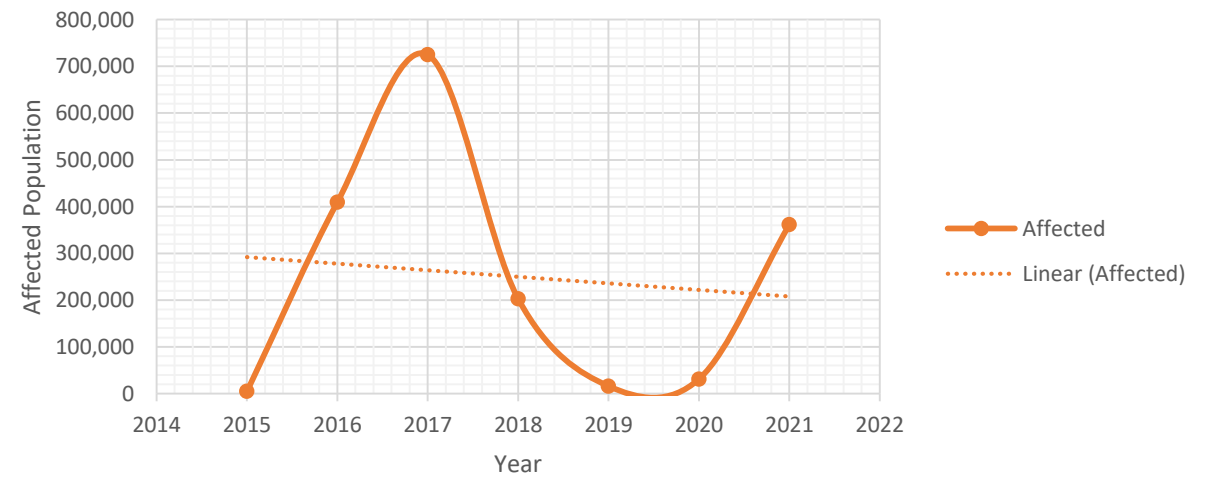
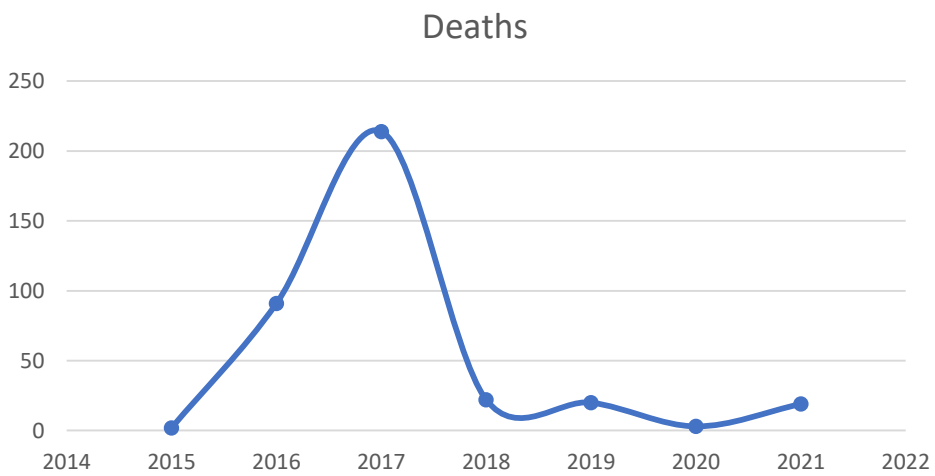
Review of South West monsoon – Historical analysis



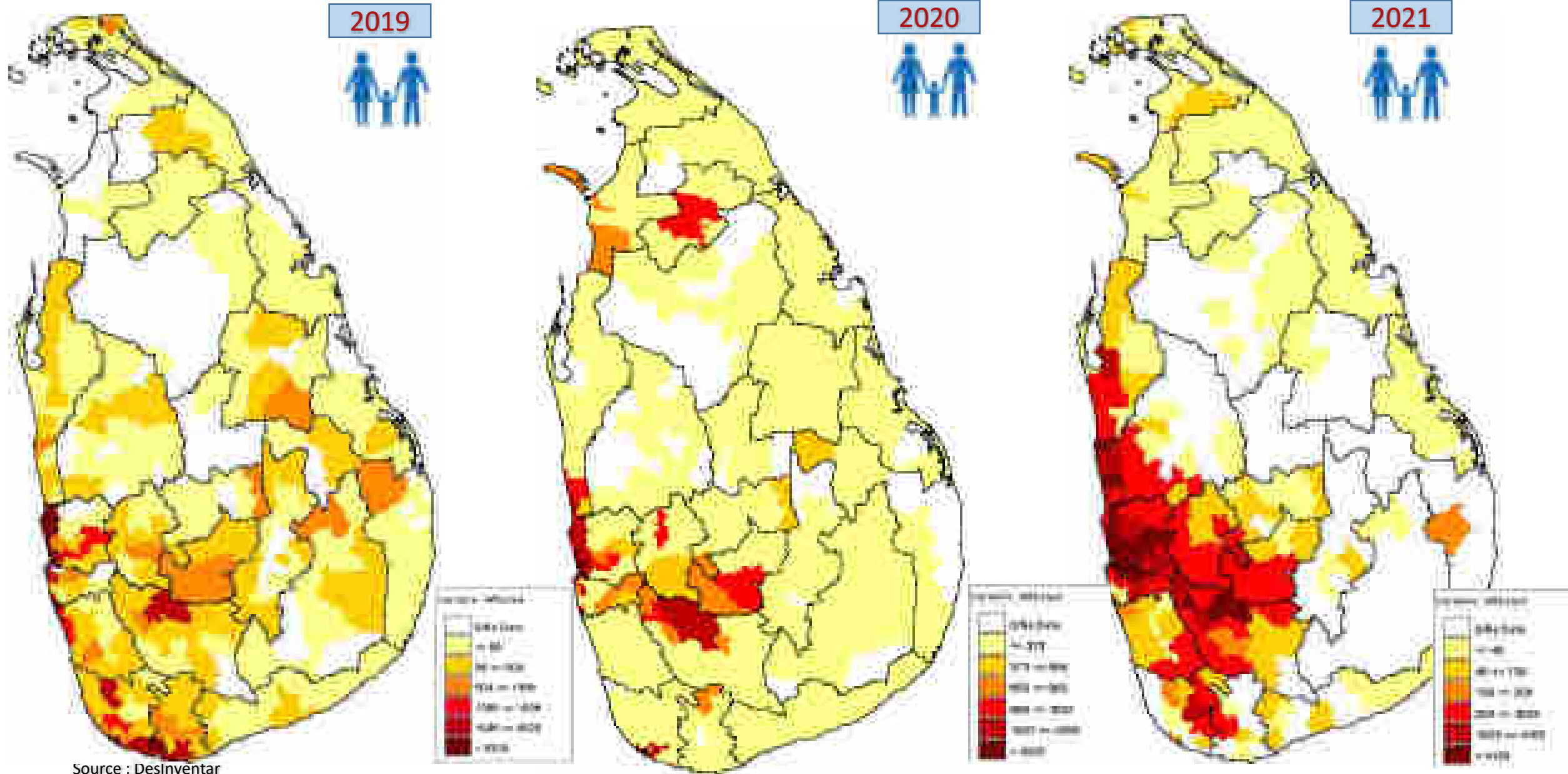
Historical impact analysis of South West monsoon 2015-2021

- 
Deaths
- 
Affected People
- 
Cutting Failure
Landslide
- 
Strong Wind
- 
Flood
Heavy Rain

| 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 |  |  |
|  | 5 | 0 | 28 | 17 | 67 | 28245 | 13 | 96 | 129757 | 13 | 1 | 1903 | 5 | 0 | 367 | 1 | 1 | 2 | 7 | 5 | 256 |
|  | 25 | 0 | 678 | 17 | 0 | 701 | 54 | 1 | 1016 | 200 | 4 | 7417 | 261 | 18 | 13652 | 280 | 0 | 16150 | 212 | 1 | 9072 |
|  | 20 | 2 | 3769 | 125 | 24 | 380329 | 80 | 117 | 593970 | 167 | 17 | 193377 | 7 | 2 | 1957 | 34 | 2 | 14833 | 142 | 13 | 351,785 |
| TOTAL | 50 | 2 | 4,475 | 159 | 91 | 409275 | 147 | 214 | 724743 | 380 | 22 | 202697 | 273 | 20 | 15,976 | 315 | 3 | 30,985 | 361 | 19 | 361,113 |



Flood and landslide impact comparison area wise - South West monsoon 2019 to 2021



Source : Desinventar

Seasonal forecast for South West monsoon (SWM) 2021

- Near normal rainfall was predicted during May – September 2021 period
- However, in the month of May 2021 a possibility for development of low pressure systems over the Bay of Bengal was indicated.
- This development was expected to influence the rainy conditions over Sri Lanka, particularly over the South Western part of the country.
- Neutral El Niño/Southern Oscillation (ENSO) conditions prevailed in the Pacific Ocean.
- Indian Ocean Dipole was also to be in the normal mode over the Indian Ocean.
- Normal to slightly above normal temperatures were expected over most parts of the region.
- Seasonal predictability was limited due to synoptic scale systems such as lows and depressions etc. and intra-seasonal oscillations.



Situation analysis - 2021

❑ 12 - 14 May 2021

The onset of the southwest monsoon season in Sri Lanka **coupled with tropical depression** (later named tropical storm “**Tauktae**” in southeast Arabian sea) triggered heavy rainfall across western and southwestern parts of the country. The Department of Meteorology reported a **maximum rainfall of up to 336mm in the Western province.**

❑ 14 - 16 May 2021

Heavy rains and winds resulted in flooding in several districts with **Colombo, Gampaha and Galle** being the **worst affected** with high number of damages and displacements.

❑ 22 May - 1 June 2021

Rainy season continued with scattered low rainfall across **West, South, Central and North western parts** of the country without significant impact.

❑ 24 May

The Deep Depression over Eastcentral Bay of Bengal intensified into cyclonic storm “**Yaas**” and lay centred at 05:30 hrs (LT) over Eastcentral Bay of Bengal. Warned to become “very severe” and the Meteorological Department issued red alert for heavy rains above 150 mm and strong winds up to 55 kmph in Southern part (Western, Sabaragamuwa, Central and Southern provinces) of the country.

❑ 2 - 5 June 2021

Intensity of the rainfall increased which caused floods and landslides again. Affected districts included; **Colombo, Gampaha, Kalutara, Rathnapura, Puttlam, Kegalle and Nuwara Eliya.** According to the metrological department, highest rainfall of **331mm rain reported in the Kalutara district.**

❑ 11 June 2021

Floodwater receded considerably and as of 11 June, about 90% the families have returned to either their own places or staying with host families. Since 98% houses were partially damaged people preferred to stay in their own places while working on repairs.

Impact of South West monsoon 2021 (area wise)

– Affected people, families, deaths and injured

South West Monsoon Impact

Peak Simulation Report (2021-08-01 to 2021-09-01)

Affected People



Legend



Affected Families



Legend



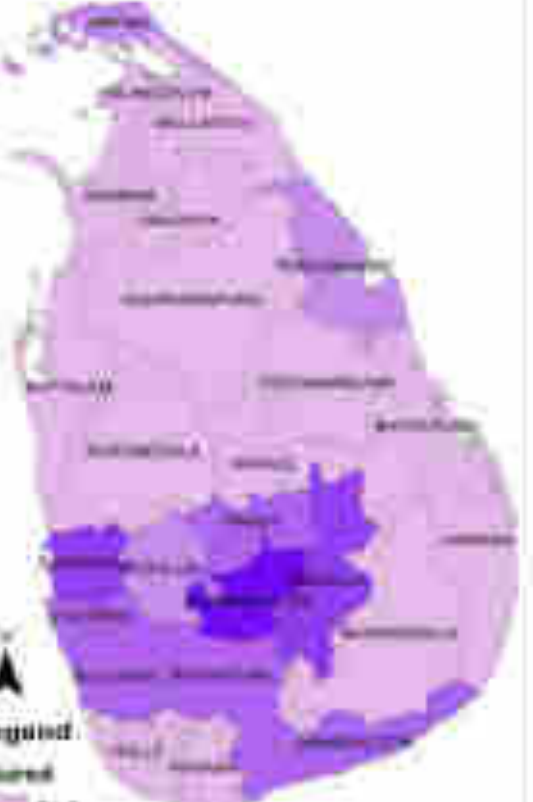
Deaths



Legend



Injured



Legend



Potential impact for South West monsoon 2022

- Department of Meteorology indicates above normal rainfall for certain districts in the North Central
- Already most of the tanks/ reservoirs are around 70% to 75% capacity level and likely possibilities for overflows/ spillage during heavy rainfall

(Source: Irrigation Department)



High risk areas

Kalutara

Ratnapura

Gampaha

Colombo

Galle

Matara

Puttalam

Hambantota

Kegalle

Anuradhapura

Potential threats and challenges

- Riverine or flash floods
- Land slides/mud flows
- Lightning
- Drowning
- Population displacement from flood affected areas
- **Health risks – COVID 19, Dengue**
- Road blockages and collapse of bridges
- **Present economic situation of the country**
- **Interruption to utility services (e.g. electricity/ on going power cuts, fuel shortages, water etc.)**
- Interruption to telecommunication services
- Livelihood destruction and food insecurity
- Human and livestock casualties

Preparation for South West monsoon (SWM) 2022

- Preparedness and planning activities already commenced by the eleven (11) districts getting affected by the SWM
- Online meeting organised by the DMC - Preparedness and Planning Division in March 2022 to discuss matters with the Assistant Directors of the District Disaster Management Coordinating Units (DDMCUs)
- District and Divisional level SWM meetings being conducted by the Assistant Directors of the District Disaster Management Coordinating Units (DDMCUs)
- District/ Divisional levels South West monsoon Preparedness plans and Scenario Based plans already being prepared
- Mitigation activities and proposed preventive measures being carried out to reduce the impact from floods, earth slips, land slides etc. (grass root level activities)
- Letter dated 2nd May 2022 on “**Preparedness for emergency response to South West monsoon 2022**” containing **guidelines to be followed** has already been issued to Assistant Directors of DDMCUs of all **twenty five districts** and District/Divisional Secretaries as well
- Creating awareness on health guide lines to be followed i.e. **COVID 19 and Dengue** with the assistance of the staff of Ministry of Health

Preparation for South West monsoon (SWM) 2022

- Awareness programmes conducted at Grama Nildhari divisions/ wards
- DMC held initial meeting / discussions with the technical agencies on **29th April 2022 (last week)**
- Preparation of guidelines to conduct G.C.E. (Ordinary Level) Examination 2021 (2022) – **“Access to Examinations Amidst Disasters”** booklet/ document
- National level SWM preparedness planning meeting (hybrid mode) with the technical agencies (i.e. Met Department, NBRO and Irrigation) and all key stakeholders (i.e. government and non-government) held **today, 6th May 2022 at DMC**
- Distribution of printed pamphlets among vulnerable communities to create greater awareness
- Deployment of Search and Rescue (SAR) teams at key locations
- Prepositioning of emergency rescue items and relief assistance
- Identifying the exact locations of safety centres and requirements to support the needs of vulnerable or temporary displaced persons
- Media briefing to be conducted during the third week of May 2022

Status of preparedness and planning for SWM 2022

DMC held initial meeting / discussions with the technical agencies on 29th April 2022 (last week)

Meetings organised by DDMCUs – Kalutara, Gampaha & Kegalle



Preparation for South West monsoon (SWM) 2022

- ▶ Distribution of tri lingual information material in all targeted areas to create awareness and for effective early action



Sponsored by UNICEF



Sponsored by Asian Disaster Preparedness Centre (ADPC)/ APP



Sponsored by Family Planning Association (FPA)

AREAS OF SPECIFIC FOCUS FOR SOUTH WEST MONSOON 2022

▪ Early warning

- Verification of messaging from upper catchment areas through DOI, Police etc.
- Night time dissemination (Police and military communication modes)
- Communication equipment backup (**standby power generators, charged batteries, adequate fuel stocks**)

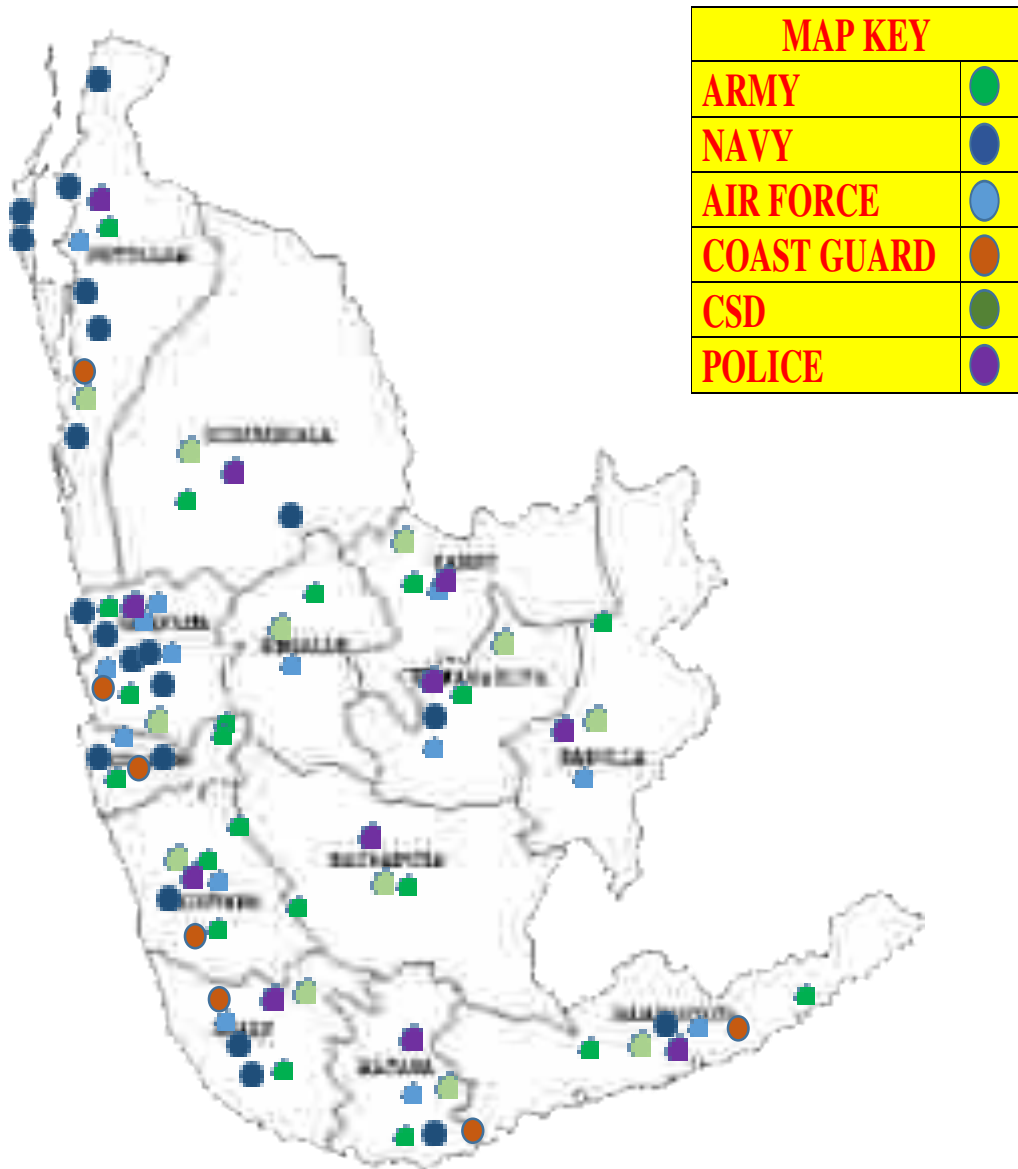
▪ Evacuation

- SAR at night (pre-deployed SAR teams with PPE and equipment)
- Adequate number of safety centres while maintaining quarantine standards
- PPEs (to be distributed to all SAR teams and safety centres in high risk areas)
- Strengthen safety centre facilities and special security plans

AREAS OF SPECIFIC FOCUS FOR SOUTH WEST MONSOON 2022

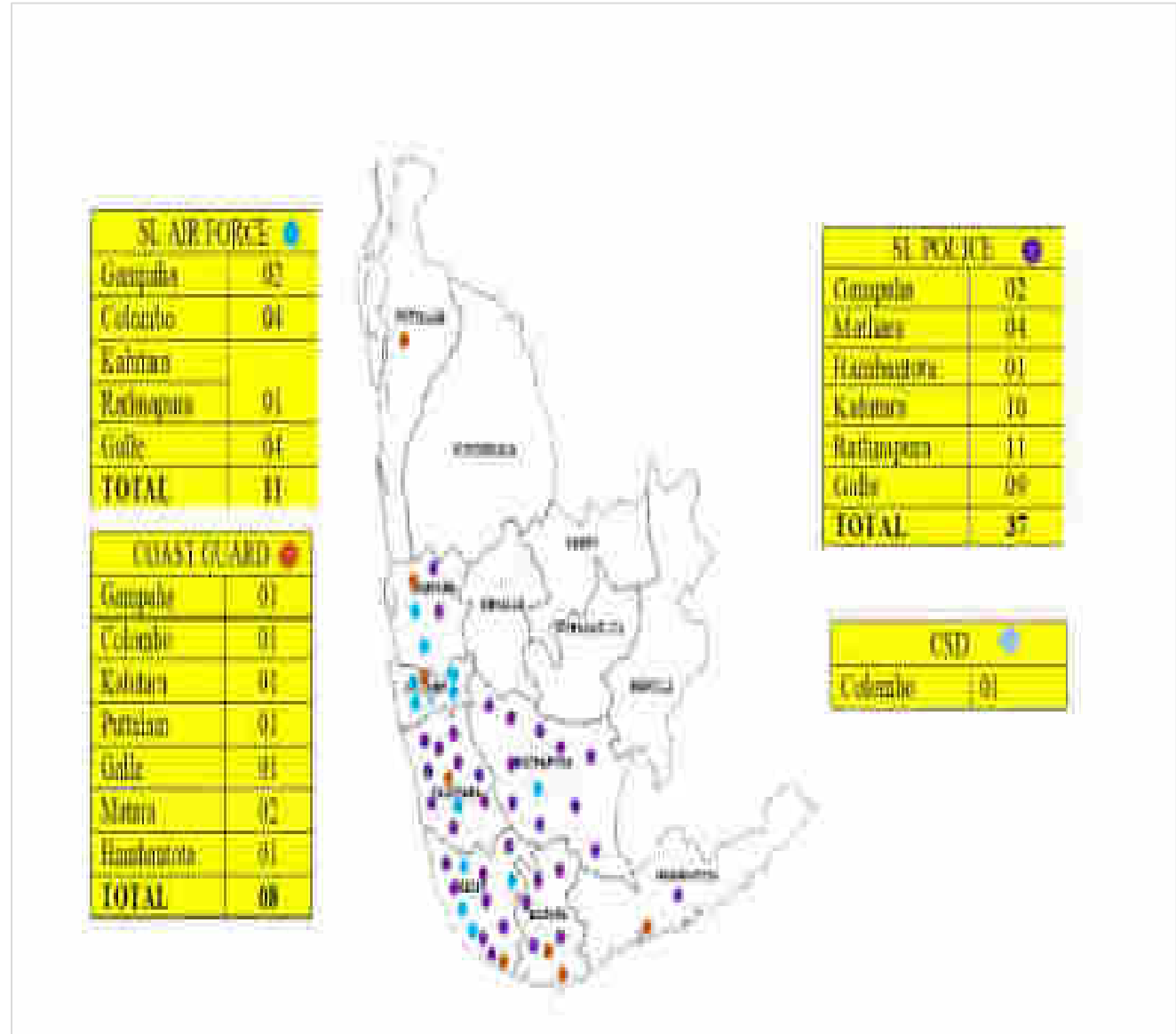
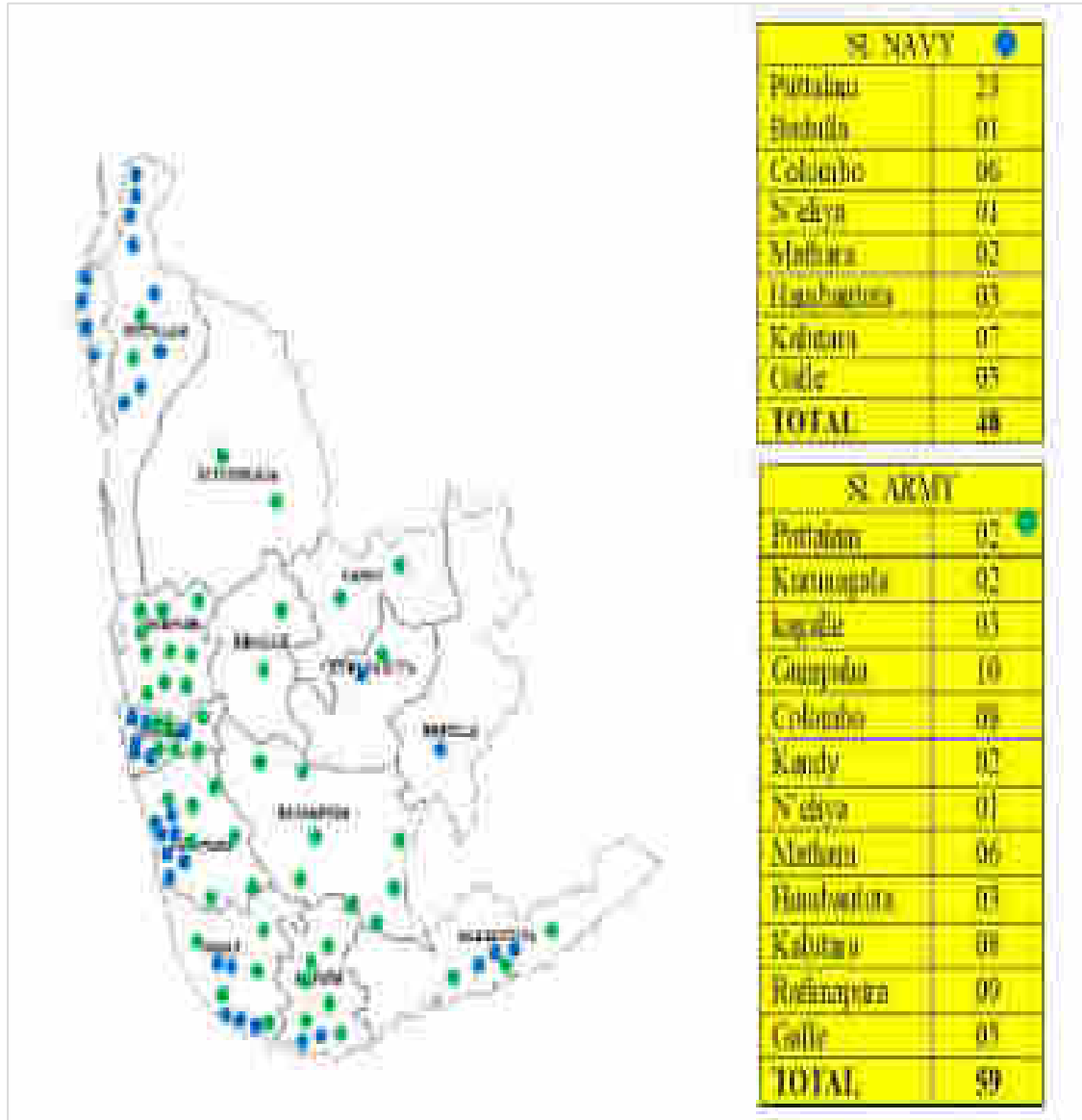
- **Food, dry rations and other required items (NFIs)**
 - Warehouse capacities (alternate places identified, major scale regional resource hubs will activate)
 - Existing stocks enhanced
 - Immediate provision of cooked meals (MPCS requested to prepare additional stocks, private suppliers identified, contingency funds disbursed to District Secretariats)
 - Access and logistics (MPCS, Military and CSD as required and as additional support)
- **Coordination mechanism**
 - Impact data collection and assessments (Divisional sub-groups formed on data management)
 - Emergency mapping (use of satellite imagery and 72 hour approach for impact assessment)
 - Stakeholder discussion at national and district level (District and divisional level stakeholder discussions completed and plans disseminated for emergency management)

Deployment of troops for the South West monsoon 2022



| District | Army | Navy | Air Force | Police | Civil Defence | Coast guard |
|--------------|-------------|------------|------------|------------|---------------|-------------|
| Badulla | 35 | 04 | 16 | | | |
| Colombo | 278 | 28 | 16 | 118 | 10 | 08 |
| Galle | 105 | 15 | 16 | 54 | 10 | 05 |
| Matara | 62 | 06 | 16 | 50 | 10 | 08 |
| Gampaha | 140 | 40 | 48 | 50 | 07 | 04 |
| Hambantota | 92 | 08 | 16 | | 10 | 04 |
| Kalutara | 191 | 21 | 16 | 105 | 20 | 04 |
| Kandy | 124 | | 16 | | 20 | |
| Kegalle | 93 | | 16 | 50 | 10 | |
| Kurunegala | 69 | | 16 | | 10 | |
| N'Eliya | 62 | 40 | 16 | | 10 | |
| Puttalam | 68 | 101 | 16 | 78 | 07 | |
| Ratnapura | 105 | | 16 | | 10 | |
| TOTAL | 1424 | 263 | 240 | 505 | 134 | 33 |

Deployment of boats for the South West monsoon 2022



Stakeholder support - relief and other assistance - Provided during the South West monsoon 2021

| Organisation | Items | Monetary value (Rs) |
|---|--|----------------------|
| Handed over to DMC | | |
| IOM | Printing of SWM awareness “Safety Centre guideline” pamphlets (Sinhala: 15,000 and Tamil: 6,000) | 249,955.20 |
| Save the Children | Face masks (disposable) | 52,500.00 |
| World Vision Lanka | Hand sanitizers, PPE kits | 597,000.00 |
| WFP | PPE | 3,995,000.00 |
| UNFPA | Maternity kits and Dignity kits | 13,000,000.00 |
| UNDP | PPE | 445,000.00 |
| UNHCR | PPE and other items | 3,108,294.00 |
| FPA | Maternity kits and Dignity kits | 867,262.00 |
| Ceylon Chamber of Commerce | Dry rations | 2,160,000.00 |
| TOTAL | | 24,225,056.00 |
| World Bank Procurement of 1,000 field/ folding beds with mattresses | | 11,869,200.00 |



Stakeholder support - relief and other assistance - Provided during the South West monsoon 2021

Cont.

Other beneficiaries due to DMC's awareness creation and inventiveness

| Organisation | Items | Beneficiary | Monetary value (Rs) |
|--|---|--------------------|--|
| World Vision Lanka | Medical equipment | Ministry of Health | 5,500,000.00 5,000,000.00* <i>(*pledged not yet disbursed)</i> |
| | Distribution of dry rations, hygiene kits, cooking equipment for safety centres | Wattala DSD | 1,300,000.00 <i>(approx.)</i> |
| TOTAL | | | 11,800,000.00 |
| APAD together with Union Assurance PLC & Cinnamon Hotels & Resorts | 3,000 meals to flood affected communities | Kaduwela DSD | TBC |
| APAD together with HSBC | Medical equipment | Ministry of Health | 8,000,000.00 |

Stakeholder support required for 2022

(Summarised categorisation)

| Support category | Description |
|---|--|
| Health safety items | Masks, face visors, gloves, sanitizer, hand-wash soap, PPEs |
| Services (First Aid/ Sanitation/ Psychosocial/ Logistics/ Communication/ Electricity/ Cleaning wells and houses etc.) | First aid points, mobile toilets, warehouse, transport, backup communications, system, generators, well cleaning gear |
| Non food items | Mats, bed sheets and other relief materials |
| Shelter and other requirements | Tarpaulins, tents, tin sheets, transitional shelter etc. <i>(Detail requirement stated in other following slides)</i> |

REQUIREMENT OF RESPONSE AND RELIEF ITEMS FOR SOUTH WEST MONSOON 2022

Cont.

| District | Badulla | Colombo | Galle | Gampaha | Hambantota | Kandy | Kegalle | Kurunegala | Kalutara | Mathale | Matara | Nuwaraeliya | Puttalam | Ratnapura | Total |
|---------------------------|---------|---------|-------|---------|------------|-------|---------|------------|----------|---------|--------|-------------|----------|-----------|-------|
| Rain coats | | | 248 | 20 | | | 50 | | 250 | | | 100 | | 50 | 718 |
| Safety helmet | | | | | | | | | | | | 100 | | | 100 |
| Gloves | 1000 | | | | 50 | | | | | | | 200 | | | 1250 |
| Axe | 25 | | | | | | | | | | | 50 | | 50 | 125 |
| Mamoty | 10 | | 20 | 20 | 10 | | | | | | | 50 | | 100 | 210 |
| Water motors | | | | 5 | 2 | | | | | | 2 | | | | 9 |
| Head Mount Torch (Helmet) | | | 50 | | | | | | | | | | | 20 | 70 |
| Mega phones | 25 | | | | | 5 | | 5 | | | | | | | 35 |
| Generators | 15 | | 2 | 2 | | | | 1 | | | | | | | 20 |
| Rescue tubes | | | | | | | | 10 | | | 10 | | 10 | | 30 |
| Throw bags | | | | | | 20 | | 200 | | | | | | | 220 |
| Rain Gauge | 100 | | | | | | | | 100 | | 5 | | | | 205 |
| Crow Bar | | | 20 | 5 | 5 | | | | | | | | | | 30 |
| Mana kethi | | | | | 10 | | | | | | | | | 50 | 60 |
| Life Bouys | | | | | 2 | | | | | | | | | | 2 |
| Water tanks | 25 | | 2 | | | | | | | | | | | | 27 |
| Torch | | 5 | 50 | | | | | | | | | | 20 | | 75 |
| Pickaxe | | | 10 | | | | 5 | | | | | | | | 15 |
| Crosscur saw | | | | | | | | | | | | | 5 | | 5 |
| Grass cutter | | | | | | | | | | | | | 2 | | 2 |
| Spinel Board | | | | | | | | | | | | | 3 | | 3 |
| Manual sirens | | | | | | | | | | | | | 1 | | 1 |
| Shovel | | | | | | | 10 | | | | | | | | 10 |
| Wheelbarrow | | | | | | | 2 | | | | | | | | 2 |
| Fire extinguisher | | | | | | | | 200 | | | | | | | 200 |
| Concrete cutter | | | | | | | | 1 | | | | | | | 1 |

Emergency contacts

Emergency hotline

117

| Responsible Agency/ unit | Officer | Contact | Email |
|---|--------------------------------------|--------------------------|----------------------------|
| Response Operations Coordination -Disaster Management Centre (DMC) | Director- Emergency Operations | 0773957903 | direoc@dmc.gov.lk |
| Emergency Operations Centre | Duty Officer | 0773957900 0112670002 | eocdmc@dmc.gov.lk |
| Military resources mobilisation coordination | Military Coordinator | 0772095328 | militarycoorddmc@gmail.com |

Thank you

Disaster Management Centre

