

# REPORT ON FLOOD IMPACT NORTH EAST MONSOON

BASED ON FACT FINDING MISSSION FROM 25 TO 28 DECEMBER 2018 IN KILINOCHCHI AND MULLAITIVU DISTRICTS

> WORLD FOOD PROGRAMME SRI LANKA 31 DECEMBER 2018, COLOMBO



# I. Background

The North East Monsoon - the major monsoon together with the second inter-monsoon brings significant rainfalls over the dry zone of the country mainly in Northern, North-Central, Eastern, Uva, North-Western provinces which are the hub of rice production - the staple food in Sri Lanka. However, due to climatic change and other phenomena, these monsoons failed in 2016 and 2017, creating the worst drought in 40 years in these areas which affected drinking water, agriculture production and livelihoods.

This year, between late November to early December, the North-East monsoon established over the Indian ocean and commenced the monsoonal rains over the eastern and north-eastern areas of the country. However, the monsoon establishment was interrupted by a low-pressure area around 9<sup>th</sup> December and developed into Tropical Storm "Pethai" and landed over India around 17<sup>th</sup> December. At the re-establishment of the North Eastern monsoon, winds created another low pressure on 21<sup>st</sup> December, closer to eastern sea areas of the country and brought heavy rainfalls to the Northern Districts exceeding 300mm within 24 hours. Many areas of Kilinochchi and Mullaithivu received above 250mm rainfalls, the highest since 1983 based on records (see Figure 1).



Figure 1: Rainfall (mm) in Northern Districts in 24 hours, ending 0830 hrs on 22<sup>nd</sup> December, Department of Meteorology

According to the Disaster Management Centre (DMC), the heavy rains and floods in these two districts on 22 December initially affected more than 45,000 people from 14,000 families. Military troops were deployed since 22 December with the coordination of the Disaster Management Centre (DMC) in the most affected divisions of Kadawalai, Karachchi, Pachchilaipallai in Kilinochchi District; and Puthukkudiyiruppu, Oddusudan, Maritimepattu in Mullaithivu District with boats and rescue gear. More than 2,000 people were rescued by troops and sent to safety centers in those divisions and provided with cooked meals on the morning of 22<sup>nd</sup> December. Thereafter, the District and Divisional Administration together with disaster management authorities took over the responsibility of provision of cooked meals for displaced population.





Floods in Kilinochchi on 22<sup>nd</sup> December (Photo Credit, Sri Lanka Army)

Since 23<sup>rd</sup> December, the situation gradually improved: the weather improved, with only minor showers received and approximately one third of the people who were displaced, had started to return to their homes. The Ministry of Disaster Management, District Secretaries and Military were responding to the needs of the affected people and the government immediately allocated 1 million rupees (US\$5,500) per affected district for the provision of emergency needs. However, the rains increased on 26<sup>th</sup> December and the authorities had to keep displaced population for additional days in IDP safety centers. The rains had significantly reduced in these Districts since 27<sup>th</sup> December, and displaced people started to move back to their homes the following days.

The National Disaster Relief Services Center(NDRSC) has provided necessary funds to the District and Divisional Administration to provide emergency relief and cooked meals. Communal cooking was done in many of safety centers with the engagement of displaced population together with authorities.

More than 86.8 million rupees has been disbursed to District authorities (50.1 million for Mullaithivu & 36.7 million for Kilinochchi), and government will start to give the compensations (under the Natural Disaster Insurance scheme) for those who were displaced and are settling after flooding. Humanitarian agencies who are present in these Districts, assisted the respective authorities for evacuation and immediate relief for the displaced population in the safety centers. Private donors, associations, media agencies, Sri Lanka Red Cross, World Vision have given in-kind (water, food, NFIs) assistance to the affected people in the safety centers.

WFP further undertook a field mission to severely affected two districts (Kilinochchi and Mullaitivu) from 25<sup>th</sup> to 28<sup>th</sup> December 2018 and gathered loss and damage data in several sectors in order to highlight the early recovery needs and subsequent long-term programming.



## II. Impact in Summary



Three out of six divisions in Mullaithivu district (Puthukudiruppu, Oddusudan, Maritimepattu) and two out of four Divisions of Kilinochchi district (Karachchi, Kandawalai) were badly affected. In total, around 3,665 families were displaced due to the flooding. Some 11,215 people of these families temporarily resided in 37 IDP safety centers (Situation report 1800hrs, 24 December 2018, DMC). Immediate water and food needs for these IDP were met, however, sanitary issues were observed in some centers. Government authorities were doing their best to provide necessary facilities to the affected population with fund allocations from the Ministry of Disaster Management. All displaced population have returned to their homes in Mullaithivu district and 10 safety centers are operating with 1,119 families in Kilinochchi district (Situation Report 0900hrs, 31 December 2018, DMC). As of the latest information on 31<sup>st</sup> December 2018, almost all displaced populations have returned to their homes except the IDPs in one safety centre (in Kandawalai division) in Kilinochchi district.

A considerable extent of paddy cultivation was damaged due to spilled water from major and minor tanks, especially in Kilinochchi, and many tanks were at spilling levels as of 27<sup>th</sup> December. Nine of the sluice gates of the "Iranamadu" Tank were opened. The major parts Kandawalai downstream (Inranamadu tank) suffered from water logging.

The flood affected areas were also severely impacted by prolonged dry spells with four to five consecutive seasons crops that had been damaged. With the monsoon rains before the flood, the farmers had enrolled to the Maha season with a hope for a good harvest. Unfortunately, most of the paddy fields at the flowering stage in the badly affected areas have been damaged due to the heavy rains and the flooding.





Flood affected paddy field in Kandawalai, Kilinochchi (Photo Credit-Indu Abeyratne WFP)

Many farmers had invested their cultivation through loans as their income was diminished due to the loss of crops in 2016 & 2017 Maha cropping seasons. As a result of crop losses, indebtedness will be expected to increase among the affected populations.

Livestock sector was also impacted and so far, the damage has not been fully assessed and the assessments are underway. Many families who depend on inland fishing were also impacted due to the adverse weather conditions and the flooding in these areas.

Well water is the main source of drinking among these affected communities and most of them was contaminated. Drinking water will be an issue at the early recovery stage. Sri Lanka Navy has deployed teams to clean wells in some affected areas where people have started to return home. The NDRSC allocated funds to District administration for the provision of safe drinking water from local authorities until situation gets normalized.

17 Schools in Mullaithivu district were partially damaged due to heavy rains and floods, and assessment in Kilinochchi is underway. The district authorities had to prioritize to the cleaning up of affected schools as the next school term is due to start on 2<sup>nd</sup> January 2019. Many of school children have lost their school items including text books and uniforms.

Many buildings in inundated areas were filled with mud and debris, and some government buildings were not functional. Some rural roads, small scale bridges and culverts were damaged due to high water flow of reservoirs. However, access to most of the affected areas was possible, and tractors



were used in difficult areas as transportation means. Few roads were still inundated due to continuous water spilling from several tanks in Kilinochchi.



Submerged Road in Puliyampokkanai in Kilinochchi on 26 December (Photo Credit WFP)

# III. Detailed Impact of the Flood in Kilinochchi and Mullaithivu Districts

### Paddy

The paddy cultivation prior to flooding was at flowering stage. Hence, it was a crucial period to save them from excessive rains. The Maha cultivation in both the districts has faced significant loss due to this flood. Over last few years, these districts have experienced long drought spells and have not received sufficient rains for the Maha cultivation. This year, unexpectedly damaging rainfalls happened when the harvesting period was just a month away. The Department of Agriculture of Kilinochchi highly predicts a shortfall of seed paddy for the next Yala season, as usually, Yala seed paddy is saved from Maha season.

Since the majority of the paddy cultivation had reached the flowering stage (3<sup>rd</sup> stage), it is expected that government will provide a compensation as per the current regulations. The government's decision regarding the compensation is yet to be announced. Below tables summarise paddy damage.



| Table 1: Paddy cultivation enrolment and damage estimate, Kilinochchi-26 December 2018, Department of Agrarian<br>Development |                 |                               |                             |                            |  |  |
|---|-----------------|-------------------------------|-----------------------------|----------------------------|--|--|
| District  | DS Division     | Cultivated Paddy<br>Land (Ac) | Affected Paddy<br>Land (Ac) | Affected Paddy<br>Land (%) |  |  |
|   | Karachchi       | 24,126.75                     | 8,047                       | 33%                        |  |  |
| Kilinochchi   | Kandawalai      | 26,208.50                     | 15,615                      | 60%                        |  |  |
|   | Poonagary       | 13,925.00                     | 1,750                       | 13%                        |  |  |
|   | Pachchilaipalli | 1,735.00                      | 696                         | 40%                        |  |  |
|   | Total           | 65,995.25                     | 26,109                      | 40%                        |  |  |

| Table 2: Paddy cultivation enrolment and damage estimate, Mullaithivu-27 December 2018, Department of Agrarian<br>Development |                   |                               |                             |                            |  |  |
|---|-------------------|-------------------------------|-----------------------------|----------------------------|--|--|
| District  | DS Division       | Cultivated<br>Paddy Land (Ac) | Affected Paddy<br>Land (Ac) | Affected Paddy<br>Land (%) |  |  |
|   | Oddusuddan        | 17,231.96                     | 2,331                       | 14%                        |  |  |
|   | Thunukkai         | 6,810.04                      | 700                         | 10%                        |  |  |
|   | Manthai East      | 6,049.52                      | 500                         | 8%                         |  |  |
| Mullaithivu   | Maritimepattu     | 6,413.36                      | 1,398                       | 22%                        |  |  |
|   | Puthukkudiyiruppu | 8,312.29                      | 5,000                       | 60%                        |  |  |
|   | Total             | 44,817.16                     | 9,929                       | 22%                        |  |  |

# Other Field Crops (OFC) Cultivation

The Agriculture Department of Kilinochchi assumed that the flood also heavily affected other crops such as big onion, green gram, black gram and ground nuts etc.

WFP and ILO jointly implement the EMPOWER project which is supporting the conflict affected women in the PuthukKudiyiruppu DS division in Mullaithivu district. The project has so far assisted 240 beneficiaries who are engaged in ginger, ground nut and banana cultivation. Initial assessment in the project areas shows that 70% of ginger fields were partially affected, 60% of ground nut cultivation was fully damaged and 50% of banana plants were fully damaged.

Damage estimation of OFC and fruit crops by the Agriculture department as at 27<sup>th</sup> December 2018 is given below:



|                        | Estimated Crop Damage Vegetable (ha) |      |       |       |
|------------------------|--------------------------------------|------|-------|-------|
| Name of the Vegetables | 100%                                 | 75%  | 50%   | 25%   |
| Capsicum               | 5.5                                  | 2    | 4.5   | 1.75  |
| Brinjal                | 4.5                                  | 4    | 6.5   | 0     |
| Tomato                 | 5.5                                  | 1    | 7.5   | 4.5   |
| Beans                  | 2                                    | 1.5  | 0     | 0     |
| Okra                   | 0.5                                  | 4.6  | 1.5   | 0     |
| Long Beans             | 10.5                                 | 10.5 | 9.5   | 3     |
| Cabbage                | 1                                    | 3.5  | 0     | 0     |
| Pumpkin                | 4.6                                  | 3.5  | 0.5   | 0     |
| Onion                  | 1                                    | 3.5  | 1.5   | 0     |
| Chilli                 | 0.5                                  | 16   | 11    | 10    |
| Pulse                  | 27                                   | 20.5 | 62    | 45    |
| Total                  | 62.6                                 | 70.6 | 104.5 | 64.25 |

#### Table 3: Estimated damage of Vegetable Crops, Kilinochchi-27 December 2018, Department of Agriculture

Table 4: Estimated loss of Fruit Crops, Kilinochchi-27 December 2018, Department of Agriculture

|                         | Estimated Crop Damage Fruit crops (ha) |      |       |      |
|-------------------------|--|------|-------|------|
| Name of the Fruit crops | 100%                                   | 75%  | 50%   | 25%  |
| Banana                  |  | 5.50 | 10.00 | -    |
| Papaw                   | 2.50                                   | 5.00 | 10.00 | 0.25 |

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