

**THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS / PUBLIC
ADMINISTRATION
FINAL EXAMINATION – August 2021
MCP2609/MSPA309 – DISASTER MANAGEMENT
DURATION: 03 HOURS (Included Uploading Answers Scripts)**



Date: 22.08.2021

Time: 9.30a.m. to 12.30p.m.

Answer FIRST question (Part I - Compulsory) and any THREE (3) questions from Part II.

All answers must be completed written neatly and focused.

This question paper consists of FIVE questions.

Part I

1. Read the following passage and answer all questions.

On November 28, 2020, a low-pressure area formed off the coast of Aceh. It gradually intensified into a depression on November 30. The Joint Typhoon Warning Center (JTWC) then issued a Tropical Cyclone Formation Alert on the system, that same day. At 03:00 UTC on December 1, the depression was upgraded into a deep depression. At 15:00 UTC, both the India Meteorological Department (IMD) and JTWC upgraded it to a cyclonic storm and tropical storm respectively and it was named Burevi, the fifth named storm of the season. At this time, microwave imagery showed well-defined convective banding wrapping tightly around the low-level circulation (LLCC). At 15:00 UTC on December 2, Burevi reached its peak intensity with 1-minute sustained winds of around 85 km/h (50 mph) and a barometric pressure of 996 mbar (29.41 inHg). Shortly afterwards, Burevi made landfall along the east coast of Sri Lanka according to the Sri Lanka's Department of Meteorology.

After weakening over Sri Lanka, Burevi exited into the Gulf of Mannar, early on December 3. However, Burevi slowed down quickly as it became stuck in a "col" between two "subtropical ridges" on December 4; thus, the system stalled just west of Sri Lanka while weakening back down to the equivalent of a tropical depression, due to increasing vertical wind shear. At 06:00 UTC on December 5, Burevi degenerated into a Post-tropical cyclone.

In advance of Burevi, a red alert was imposed by the Sri Lanka Department of Meteorology. Sri Lanka's meteorological department also warned of storm surge, flash flooding, and damage to homes and power lines. A red alert was also issued. Fishing and naval activities were suspended in Sri Lanka starting December 2, according to the IMD. The IMD also issued storm surge warnings for the East Coast of Sri Lanka. More than 75,000 people were evacuated along the east coast of the country, with 237 relief centers opening in the district of Trincomalee. Schools were shut down in the Northern Province and Eastern Province until at least December 4 due to the storm. The Director-General of the Disaster Management Centre said that 50 shelters were opened in each district of the North and East provinces.

At least two people died, six people were injured, 99 houses were fully destroyed 3,486 houses were partially damaged and a total of 95,734 persons affected by Cyclone Burevi, including 79,564 in Jaffna alone, Sri Lanka's Disaster Management Centre said. The 2 fatalities were residents of the Chankanai

and Chavakachcheri areas of Jaffna district. Rain continued to lash Jaffna after the centre of the cyclone moved out of the island, leaving many areas flooded. Jaffna continued to experience heavy rains of 193.3 millimetres as late as December 6. By the afternoon of December 4, 68,958 persons from 20,814 families were already affected. Sri Lanka Navy said dozens of families were displaced in Punkudutivu and Iranativu islands in Jaffna who were relocated to safer places and given relief supplies. More than 12,200 people from 3,500 families were impacted earlier. 4 fishermen went missing during the storm, including 1 from Jaffna and 3 from Mannar. 4 people were injured in the town of Valvettithurai. Burevi produced heavy rainfall over Sri Lanka, peaking at 203.5 mm (8.012 in) in Alampil. However, Sri Lanka's Disaster Management Centre stated that, "District disaster management units are reporting that no major damage has been caused by the cyclone. "The city of Trincomalee was estimated to have been the hardest hit in Sri Lanka. According to European Civil Protection and Humanitarian Aid Operations, 10,336 people were displaced, and an additional person was missing.

- Wikipedia

- a. Describe briefly, giving reasons, as to why Sri Lanka is at risk of getting affected by tropical cyclones (04 Marks)
- b. Name two (02) government organizations in Sri Lanka mandated to issue early warnings on tropical cyclones (04 Marks)
- c. Briefly describe the existing mode/s of communication that ensure the relevant messages of early warning on tropical cyclones are passed to the at-risk population effectively (04 Marks)
- d. Describe briefly, giving examples, important qualities of buildings that could accommodate people evacuated before a tropical cyclone hitting an area (04 Marks)
- e. Name four (04) cascading effects that may follow a tropical cyclone crossing Sri Lanka (04 Marks)
- f. Briefly describe the measures that could be taken to prevent, mitigate and to be prepared for direct, indirect, and cascading effects of tropical cyclones in Sri Lanka (04 Marks)
- g. Name two (02) major organizations that involves in search and rescue operations in Sri Lanka. (04 Marks)
- h. Briefly describe the immediate requirements of persons evacuated in response to an impending tropical cyclone (04 Marks)
- i. Name four (04) government organizations that play vital roles in providing relief to people directly or indirectly affected by tropical cyclones (04 Marks)
- j. Describe briefly two (02) major livelihood issues likely to follow a major tropical cyclone crossing Sri Lanka (04 Marks)

Part II

2. Describe the difference between
 - a. A Disaster and an Emergency (04 Marks)
 - b. Internally Displaced Person (IDP) and a Refugee (04 Marks)
 - c. Relief and recovery in disaster response (04 Marks)
 - d. Prevention and Mitigation in disaster management (04 Marks)
 - e. Preparedness Plan and a Response Plan (04 Marks)

3. Write short notes on
 - a. Stakeholder management in disasters (05 Marks)
 - b. Incident Commands System (ICS) (05 Marks)
 - c. Rapid Assessment done immediately after a disaster (05 Marks)
 - d. Minimum Standards in disaster response (05 Marks)

4. Describe briefly
 - a. The factors contributing to the increased incidence of disasters in Sri Lanka (10 Marks)
 - b. Current disaster management framework in Sri Lanka (10 Marks)

5. Corporate Sector in Sri Lanka has a great potential to contribute to the disaster management process in the country.
 - a. Name four (04) organizations within the corporate sector that has the potential to give leadership to such contribution by formulating policies and organizing activities with the fullest participation of all private sector entities that come under their purview (08 Marks)
 - b. Briefly describe the strengths and weakness of the Corporate Sector in respect of contributing to the disaster management process in Sri Lanka (12 Marks)

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