

THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION DEGREE PROGRAMME



FINAL EXAMINATION- 2015

MCP 2609 DISASTER MANAGEMENT

DURATION: Three (3) hours

DATE: 16.12.2015

TIME: 01.30p.m. – 04.30p.m.

This paper contains two parts

- Question number 1 in part 1 is compulsory.
- Answer any three (03) questions from part 2.
- All together answer 4 questions.

Part 1

01. Read the following passage and answer all questions.

Water Crisis in Asia

As the contradictions of Asia's water challenges have been laid bare this year – with millions affected by flooding while others are hit by droughts – one thing has been made clearer: the coming water crisis could exacerbate already simmering domestic and regional tensions.

Heavy monsoon rains have produced the worst flooding in Pakistan's history, with more than three weeks of flooding leaving at least 1,500 dead and more than 4 million homeless. As many as 200,000 have been evacuated.

Meanwhile, flash floods and mudslides have submerged some villages in China's Gansu Province, killing hundreds and leaving more than a thousand missing. Chinese state media announced 250,000 had been evacuated in the north of the country after the Yalu River burst its banks.

But while attention has been focused on disasters in Pakistan in China, South-east Asia has been hit by its own torrential downpours. Last month, Singapore suffered three major floods – an unprecedented number for the prosperous city state – with even the shopping and financial districts hit in the city since 1978.

Vietnam has also been affected, with many parts of Hanoi under water last month after a major storm struck the country. What added insult to injury in Vietnam's case is that the flooding came after a nine-month dry spell that disrupted the country's hydro power supply, adversely affected by falling water levels in the Mekong River.

And Vietnam hasn't been the only country in the region to face the twin curse of droughts and flooding. The Philippines (recently ranked by the Belgium-based Centre for Research and Epidemiology Disasters as the most disaster-prone area in the world) was last year hit by 14 meteorological and 9 hydrological disasters, the most devastating of which was last September's typhoon, which unleashed the worst flooding in Metro Manila in 40 years. This year, although floods have been a regular occurrence in Manila since the start of the wet season, the June-July rainfall was insufficient to increase water levels at the Angat Dam – the principal source of fresh water in the country's capital. The result has been both tragic and somehow comic: Residential homes are flooded, but there's no water in the faucets.

To top all this, Thailand was also year 2011 experiencing a longer than usual dry season and was forced to postpone the rice planting season for a month, which will have knock-on effects around the region as Thailand, like Vietnam, is among the world's top rice exporters.

It's an alarming pattern both flooding and dry spells across Asia are becoming more intense, and occurring more frequently, each year. So how should Asian governments respond? For a start, they can do better than simply blaming God or Nature, arguments rolled out by one Singaporean minister to explain the massive flooding there.

Flash floods, landslides, and other symptoms of climate change are also in part man-made disasters.

In the case of Singapore, for example, some experts blame excessive property development in the city for rising floodwaters, while the Gansu landslide in China has been linked to massive deforestation, mining activities and the construction of several hydro power plants in the area.

Inadequate government planning is also a major reason for the rising human casualties. The Philippines drafted comprehensive flood control measures as early as 1976 but failed to implement the proposed engineering solutions to minimize the harmful impact of the annual floods. Water rationing is now being under-taken in Manila precisely because previous governments have failed to develop or tap other

sources of clean water. It's estimated that Malaysia too could encounter a water crisis in 2016.

This sort of water crisis could even lead to regional problems. The construction of several dams in China along the Mekong River has been pin-pointed as one reason for the drop in water levels along the river, which is vital for servicing the water needs of Thailand, Laos, Cambodia, and Vietnam. For countries like Singapore confronted with scarce water supplies, it's crucial that sustainable water agreements are inked with adjacent countries. Singapore has a water agreement with Malaysia, but the deal comes to an end next year. This isn't, of course, the only potential flashpoint over water in Asia – India and Pakistan have already been widely cited as two countries at risk of conflict over Himalayan water sources.

But it's still unclear whether there's any urgency to take a more broad-based approach to tackling these problems.

Regional governments find plenty of time to meet and discuss trade imbalances, poverty and terrorism.

But recent crises have demonstrated that it's time they also stopped seeing problems such as the floods in Pakistan as simply national, internal issues and started taking a regional perspective instead. Failure to do so may well prove nothing short of disastrous.

(Extracted From diplomat.com)

- I. What is meant by water crisis? (4 marks)
- II. List down major types of disasters mentioned in the paragraph and name the affected countries. (4 marks)
- III. Identify vulnerable elements mention in the article. (4 marks)
- IV. Name the most disaster prone areas in the world.
(Based on Belgium – based centre) (4 marks)
- V. What are the specific reasons for floods in Singapore? (4 marks)
- VI. What are the direct impacts and indirect impacts of floods? (5 marks)
- VII. What is the relationship of climate change and climatological hazards occurring? (5marks)
- VIII. What the author's conclusion in relating to solving the water crisis? (5 marks)

- XI Identify water crisis mitigation activities need to be implemented in Sri Lanka. (based on the paragraph) (5 marks)

(40 marks)

Part 2

- 02.) Distinguish the terms given below with examples.
- a) Emergency & Disaster
 - b) Natural disaster & Person induced disaster
 - c) Proactive & Reactive
 - d) Preparedness & Mitigation (8 marks)
- I. Disaster Risk = Hazard * Vulnerability / Capacity to manage
Considering the above for Fire incident in an organization or an Industry, discuss how Disaster Risk could be reduced. (12 marks)
- 03.) I. Illustrate the disaster management cycle and identify Tri party process within the cycle. (8 marks)
- II. Disaster Risk is the chance or like hood that a hazard will occur, and the exposure of human population and assets to such a hazard.
Discuss the steps of risk management process considering a Flood Disaster. (12 marks)
- 04.) I. Identify vital organizations in Sri Lanka and those functional roles in relation to management of following disasters.
- a) Flood
 - b) Tsunami
 - c) Droughts
 - d) Dengue (8 marks)
- II. Explain the steps of preparation of a disaster mitigation plan and discuss the significance of disaster mitigation plan. (12 marks)
- 05.) I. Discuss the three stages involved in prediction in early warning. (8 marks)
- II. Identify the modern data collection equipments available in the world & discuss the potentiality of their usages in Sri Lanka. (12marks)

- 06.) I. Discuss the advantages of Business Continuity Plan in an organization. (8 marks)
- II. Explain the phases required to be operationalized during the emergency response and list the activities need to be carried out. (12 marks)

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