The Management University of Africa

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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF ARTS IN DEVELOPMENT STUDIES/BACHELOR OF COMMERCE

BDS 317/UCU 107 /EMN 400: DISASTER MANAGEMENT

DATE: 7TH APRIL 2025

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

DROUGHT RISK MANAGEMENT

Drought risk management is a crucial aspect of sustainable water resource management and involves a range of strategies and approaches aimed at mitigating the impacts of drought on society, the environment, and the economy. In this discussion, key aspects of drought risk management are explored and reference is made to relevant sources to support the analysis. Drought risk management encompasses various measures such as monitoring and early warning systems, drought preparedness and planning, demand management, water conservation, and drought response strategies. These approaches are designed to enhance resilience and adaptive capacity, reduce vulnerability, and ensure effective resource allocation during periods of water scarcity. One fundamental aspect of drought risk management is the development and implementation of drought management plans. According to Wilhite and Pulwarty (2019), drought plans should be comprehensive and include measures for monitoring, forecasting, and assessing drought conditions, as well as strategies for water allocation, public communication, and stakeholder engagement. Drought management plans should also consider the integration of climate change projections to account for future uncertainties.

Demand management and water conservation play critical roles in drought risk management by promoting efficient water use and reducing overall water consumption. Drought response strategies, such as temporary water use restrictions and allocation schemes, are also essential to ensure equitable distribution of available water resources during drought periods. In conclusion, drought risk management involves a comprehensive range of strategies aimed at reducing vulnerability to drought, enhancing resilience, and ensuring effective water resource allocation. This includes the development of drought management plans, the establishment of early warning systems, and the implementation of demand management and response strategies. By adopting these approaches, communities can better prepare for and mitigate the impacts of drought events.

The drought phenomenon in most cases triggers emergency responses when the impact on local people is severe. The impacts depend upon the local people's vulnerability to such shocks, and hence the need to understand the vulnerability to droughts as a prerequisite of designing preparedness, mitigation, and relief policies and programs. Drought affects more people than any other disaster in Africa and its consequences is as a result of many interacting factors such as poverty, high dependency on rain-fed agriculture, population increase, lack of natural resource management, and inadequate economic development. Rural areas are more vulnerable to drought because the rural economy is tied to the agriculture sector, which has lower technology and where climate change is a factor whose substitutability is very limited.

This is according to Ndayiragije and Li, (2022) who did a study on the effectiveness of drought indices in the assessment of different types of droughts, managing, and mitigating their effect. Less developed regions are more likely to be vulnerable to climate change, due to the weaker capacity of local residents to adapt and recover from the impacts. This would in turn prevent acute disaster by reducing disaster risk at the community level, through the identification of the risks and translating the knowledge into preventive actions. Falayi et al (2022) consider drought to be extreme rainfall deficits and the resulting periods of low flow of water, which can have severe effects on water management in terms of river pollution, reservoir design and management, irrigation and drinking water supply. Wilhite et al. (2000) also described drought as a natural hazard that differs from other hazards because it has a slow onset, progresses over months or even years, affects a large spatial region and causes little cultural damage. According to them, its onset and end are often difficult to determine, just as its severity.

The local people would become more resilient and prepared to respond to the drought disaster, which would then be further enhanced by government disaster preparedness efforts. The existing studies in the passage highlight the vulnerability of rural areas in Africa to drought due to their heavy dependence on agriculture, limited technological resources, and the impact of climate change. However, there may be specific regional variations and unique contextual factors that contribute to

drought vulnerability in different areas. Understanding these contextual nuances is essential for tailoring effective drought risk management strategies. While some studies recognize the importance of considering the interconnectedness of floods and droughts within the hydrological cycle.

The studies highlight the impacts of drought on water management, ecosystems, and communities(Muktar&Kathula,2024).

Required:

a) From the case study extract five possible contributions to drought disaster occurrences in Africa **(10 Marks)**

b) Describe any five (5) components of the drought management plans **(10 Marks)**

c) In five points from the case, analyse the strategies to drought risk management measures. **(5 Marks)**

QUESTION TWO

a) Disaster financing is important and the developed countries assist the developing countries in mitigating the impacts of major disasters as they occur, using these funds in various ways. Discuss any five ways this assistance is used **(5 Marks)**

b) As a country we have had various adverse impacts that result from the disaster situations. Describe five most current ones **(10 Marks)**

QUESTION THREE

a) Technology has brought the use of Geographic Information Systems (GIS) in disaster management. Elaborate five advantages **(10 Marks)**

b) National Disaster Management Authority is emphasizing on the major goal of emergency preparedness programs as training area for all, justify with five arguments **(5 Marks)**

QUESTION FOUR

a) Diseases are inevitable in disaster situations and they fall in broad categories. Describe any five categories of these communicable diseases providing reasons why they are common **(10 Marks)**

b) Describe Disaster Risk Reduction five measures that countries can adopt into their planning and policy **(5 Marks)**

QUESTION FIVE

a) Disaster emergency response activities used in the disaster management cycle are many. Explain any five of these typical activities **(10 Marks)**

b) A clear national disaster management policy plays an important role. Explain briefly any five of its advantages to a Country like Kenya **(5 Marks)**

QUESTION SIX

a) We involve many stakeholders in community-based approach of reducing disaster risks. Demonstrate the role played by any five of the stakeholders **(10 Marks)**

b) The media is very important and contributes to the process of disaster management in various ways. Demonstrate any five roles **(5 Marks)**