SCHOOL OF LIBRARY, ARCHIVES AND DOCUMENTATION STUDIES (SLADS) – BAGAMOYO).

A RESEARCH REPORT

AN ASSESSMENT ON AVAILABILITY OF DISASTERS PREPAREDNESS IN ACADEMIC LIBRARY:

A CASE STUDY DAR ES SALAAM INSTITUTE OF TRANSPORT (DIT)

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A Research Report Submitted at the School of Library Archives and Documentation Studies as Partial Fulfillment for the Award of Ordinary Diploma in Library and Information Studies.

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CERTIFICATION

The undersigned certify that supervisor has read and hereby recommend for acceptance by the School of Library, Archives and Documentation Studies (SLADS) Bagamoyo. A Research Report entitled "*Assessment on Availability of Disasters Preparedness in Academic Library." A Case Study Dar Es Salaam Institute Of Transport (DIT)*, in Fulfillment of the Requirements for the Award of Ordinary Diploma in Library and Information Management.

Signature _____

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I, **Sabrina M. Masoudi** declare that this research report is my own original work and that it has not been presented and was not be presented to any other college for a similar or any Diploma Award.

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DEDICATION

I dedicate this research report to my family and who encouragement and enthusiasm during this period while providing all necessary support to my studies.

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LIST OF ABBREVIATIONS

ICS	-	The Incident Command System
NFPA	-	the National Fire Protection Association

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ABSTRACT

This study Assessed on *Availability of Disasters Preparedness in Academic Library* at Dar es salaam Institute of Transport, at Dar es salaam. The study was conducted to determine the existence of a formal written disaster management plan, to evaluate the availability of physical disaster prevention and response equipment (e.g., fire extinguishers, smoke detectors, water sensors), To examine the level of staff training and awareness regarding disaster management and to identify the challenges hindering effective disaster preparedness in the library.

The study employed a descriptive research design and adopted a mixed research approach, combining both quantitative and qualitative methods. Data were collected from 25 users and 5 staff members using questionnaires and interviews. The collected data were analyzed using descriptive statistics such as frequencies and percentages, while qualitative data were analyzed thematically. The findings were presented in tables and narrative form for easy interpretation.

The findings revealed that although some students benefited from availability of disaster preparedness in library, there were challenges such Inadequate Infrastructure and Hardware Shortages Unreliable Power Supply and Connectivity Issues, Lack of Technical Support and Maintenance, Resistance to Change and Institutional Culture.

The study concludes that the effectiveness of the ICT services system delivery plays a crucial role in students' access to information at SLADS College. It recommends that ICT should improve communication, strengthen payment processing systems, and enhance awareness among students and reliable service delivery.

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CHAPTER ONE

BACKGROUND OF THE STUDY

Introduction

This chapter briefly describes the background to the study, the general objective of the study, the specific objectives research questions, scope of the study and limitations of the study, significance of the study and definition of the key terms.

1.1 Background of the Study

Libraries in the 21st century are experiencing unprecedented change both in the provision of information resources and services. Librarians tend to embrace change due to insecurity. Hence, the relevance and vitality of academic libraries are at risk. The resources and services of the library which are very expensive to acquire are threatened by disaster occurrence. The changes in higher education require librarians to develop different techniques in procuring content, management of content; rights of access and collection development policies of risk associated with managing different activities of the library (Rehman, 2021). According to Abubakar (2015), academic library plays a significant role in teaching, learning and research, it is a subsystem of tertiary institution and not just a division for only providing services for studies and research only, it has become an important unit of the Institution's information infrastructure and an active participant in the learning process. Disasters cause serious disruption of library operations and libraries need to have control in the event of a disaster. Disaster prevention and awareness measures will help to prevent disasters that occur in libraries. Serious damages caused by disasters whenever they occur leave the affected libraries in a devastating state (Ugwuanyi, Ugwu & Ezema, 2018). With declining financing and the incapacity to attain demand, it is important that the available collection to patrons should be protected from any form of destruction (Ajegbomogum, 2014). Academic library is one of the potential learning environments that function at the tertiary education level. It is characterized by the abundance of information sources, serves as a storehouse of knowledge and it is concerned with the

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acquisition of materials for teaching and research, processing of materials for easy retrieval, and the dissemination of information to facilitate the active and effective exploitation of the acquired resources (Singh and Kaur, 2019). An academic library is not only the basis of all teaching and study, it is the essential condition of research, without which additions cannot be made to totality of human existence. The library thus plays very important role to any institution, and should not be allowed to suffer any form of set back or disaster as this will affect the entire academic institution and her activities. Global studies have shown that academic libraries are unprepared and ineffective in disaster management and its outcome (Trishanjit, 2019). For instance, Andy (2018) indicated how hurricane Katrina destroyed New Orleans's libraries like the Delgado Community College's, Dillard University and Southern University which resulted to high damages. Matthews (2015 pointed out how fire in the United Kingdom destroyed the Ramsgate public library and thousands of literary materials were lost. Studies carried out by Johnson (2015); Rayward and Jenkins (2016) pointed out the 2013 Allied invasion of Iraq and the ensuing plundering of its libraries and museums that demonstrated the destructive nature of the disaster.

In Africa, Alegbeleye Countries in the African continent like Kenya are hanging back when it comes to the current revolution as a result of poor infrastructure which has been caused by an inadequate creation of knowledge and an absence of capacity within institutions in regards to the numbers as well as skills (Mathews, Smith & Knowles, 2009). This means that when it comes to disaster preparedness and planning, information is seriously lacking as initially mentioned by previous research. Preparing any organization for a disaster entails recognizing potential hazards, minimizing their consequences, and determining response strategies before those hazards become active threats. Academic libraries, which contain personnel, visiting patrons, and a high fuel load due to their diversified collections, are one organization environment that has gotten minimal attention in this area (Robertson, 2005). In as much as a majority of libraries are being catered for by their parent organizations, emergency preparedness and planning, a library can build a self-help program. Even within a university's master plan, libraries can enhance their policies and processes by detecting gaps in preparedness and planning. Digital libraries are vulnerable to the same risks as other enterprises in their neighborhood, and, like them, may be unprepared and unprepared

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for a variety of catastrophes (Topper, 2008). When it comes to natural calamities, the question is typically not whether, but when (Clareson & Long, 2006). Which makes the issue of preparedness and planning an issue that should be accorded crucial status.

Locally in Tanzania, many people depend on libraries or digital libraries for information services since they can hardly afford to purchase the required resources (print and non-print) on their own. The prevailing terror threats in Dar es salaam led to a disastrous destruction of the library building and library resources during the terror attack at the Dar es salaam University in April of 2015 in which 147 students lost their lives. At the Dar es salaam University 38 students were injured during a stampede in the library caused by a false terror alarm (Ochieng, Maichuhie & Esekon, 2016). It has in many years experienced several students' strikes which have developed in destruction of digital library resources and the building itself. This has occurred several times as the library staff are caught unaware of the situation. The students within the library end up panicking, resulting in commotion within the library and in the process a lot of library resources are destroyed especially the digital content physically available. As they engage the police in running battles, the library windows have been stoned and broken. Tear gas has also been lobbed in the library at one point, almost causing fire because of its combative nature and availability of paper and other non-print resources (digital library resources) in the library. The library building is also an old one with a leaking roof exposing library resources to destruction.

1.2 Statement of the Problem

Disaster preparedness and planning is a process that ensures that organizations are better prepared for any eventualities of a disaster. Digital libraries in particular need to prepare for disaster to minimize the risk of losing information and disruption of services. When a digital library adequately prepares and plans for disaster, it ensures that its services are sustained for the period of the disaster and beyond. Disaster preparedness and planning now existed as a normal challenge in a number of institutions globally (Lerbinger, 2012). This practice encompasses preparing, planning, strengthening and redeveloping the communities after occurrences of

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disasters. However, when libraries fail to prepare and plan for disasters, then they are permitted it to occur. Lack of preparation and planning has far-reaching implications for the security of both collections, patrons and staff. This is an area which has been enormously supported by the private agencies and the government, although disasters have continued to result in the damaging of digital library resources, buildings and death yet very little effort has been spared in ensuring the collection is safe. Disaster is manifested in various forms such as those cause by natural causes which include flooding, earthquakes and tornadoes, while others include attacks by terrorists and violence in the work place. This exposes the resources in the library to a lot of risk. In today's world, no institution or group can be completely immune to tragedy. Disaster planning and preparation for centers of information, as well as their staff and holdings, is a question of basic security (UNESCO, 2005). With libraries' budgets falling and their ability to meet demand dwindling, it's vital that users' access to collections be protected against destruction in any way possible. However, disaster preparedness and planning has not been fully embraced in libraries let alone digital libraries today. According to Tanui (2013) the most academic libraries have done in terms of disaster preparedness and planning is to develop risk matrices as required by ISO. According to Nwokedi (2017), academic library staff are ignorant and ill prepared towards preparing and planning for disaster. The preparation and planning for any disaster first requires a digital library to develop documented procedures in the form of a disaster plan (Nwokedi, Panle & Samuel, 2017). A disaster plan according to Morgan and Smith (2014) includes active awareness, employees with assigned roles, testing of procedures, training, availability and maintenance of facilities and commitment by management. Due to the threat disasters bring, it is vital that the digital library considers disaster preparedness and planning, and managing this aspect part of its fundamental duties. Being prepared in advance for a crisis is crucial so that if one happens, the library is able to cope. The study therefore sought to establish the level of planning and preparedness of disasters in relation to sustainability of services at the digital library in Dar es salaam University.

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1.3 Research Objectives

1.3.1 General Objective

To assess the availability and effectiveness of disaster preparedness measures in DIT Library.

1.3.2 Specific Objectives

i. To determine the existence of a formal written disaster management plan.

ii. To evaluate the availability of physical disaster prevention and response equipment (e.g., fire extinguishers, smoke detectors, water sensors).

iii. To examine the level of staff training and awareness regarding disaster management.

iv. To identify the challenges hindering effective disaster preparedness in the library.

1.4 Research Questions

i. Does DIT Library have a documented, up-to-date disaster management policy?

ii. What disaster prevention and mitigation facilities are currently available and functioning?

iii. How trained are the staff members to handle emergency situations?

iv. What are the major constraints in establishing a robust disaster preparedness program?

1.5 Significance of the Study

i. Safeguarding Information Resources and Cultural Heritage**,** Academic libraries house extensive collections of books, journals, manuscripts, digital archives, and other unique materials that represent centuries of human knowledge and cultural heritage

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ii. Ensuring Continuity of Academic Operations and Research**,** Academic libraries are integral to the daily functioning of universities and research institutions.

iii. Protecting Human Life and Well-being, While the preservation of collections is paramount, the safety and well-being of library staff and users during a disaster are equally critical.

iv. Optimizing Resource Allocation and Investment**,** Disaster preparedness requires significant investment in terms of time, personnel, and financial resources.

1.6 Scope of the Study

The study based on assessing availability of disasters preparedness in academic library where the study expected to be conducted at Dar es salaam (DIT Library).

1.7. Limitation of the study

In conducting this study, some limitations were expected to be occurred as;

1.7.1 Inadequate of fund; Budget allocated for this study may not be enough to cover all the necessary costs. In order to overcome this challenge, the researcher used sustainable budget to accomplish the study and ensure every penny budget is used for the purpose and for the most informant things only.

1.7.2 Lack of experience; Experience is considered as a limitation because a researcher had no experience, since it is first time to conduct a research study. Therefore, research expects to get assistance from a supervisor and other people who are experienced in doing research.

1.8 Definition of key terms

i. Disaster preparedness was a continuous cycle of planning, training, and equipping to build capacity for anticipating, responding to, and recovering from natural or man-made hazards. (Blumenauer, 2023)

ii. An academic library was a specialized repository within a higher education institution (college or university) designed to support the curriculum and

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research needs of students, faculty, and staff. American Library Association. (2023).

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Literature review is a body of text that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Kumar, (2005). This chapter allows a researcher to survey available literature reviews, which are related to the field of study. The researcher keeps up herself with up to date in her field of study and related areas such as books, microforms like audio and video tapes, journals, reports of committees, research dissertations and seminar reports (Krishanaswami, (2006)

2.1 Disaster Management Policies in Libraries

Disaster management in a library context is a systematic process of planning, organizing, and implementing measures to prevent, prepare for, respond to, and recover from emergencies that threaten personnel, facilities, and collections Lyall, (2021).. Historically, library disaster planning focused primarily on water and fire damage; however, modern standards now encompass a "total-hazard" approach, including seismic activity, biological threats like Mold, and human-induced crises such as active shooter incidents or cyber-attacks. A documented, up-to-date disaster management policy serves as the institutional blueprint for survival, ensuring that staff can act decisively under pressure rather than reacting with confusion. A comprehensive disaster management policy is not merely a static document but a living framework that must be regularly audited and updated to reflect changes in staff, technology, and building infrastructure WHO, (2017). Authoritative texts emphasize that the efficacy of a library's response is directly proportional to the detail and currency of its written protocols. Below is an explanation of the eight critical components that define whether a library possesses a documented and up-to-date disaster management policy

Risk Assessment and Hazard Identification: The foundation of any documented policy is a thorough risk assessment. This involves identifying potential threats specific to the library’s geographic location and building architecture. For instance, a library in a

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seismic zone must prioritize shelf-bracing and earthquake protocols, as seen in the lessons learned from the 1994 Northridge Earthquake. A documented policy must include a "vulnerability analysis" that ranks risks based on their probability and potential impact. This section of the policy should be updated annually to account for new threats, such as evolving cybersecurity risks or changes in local climate patterns that might increase flood risks.

The Incident Command System (ICS) and Team Hierarchy: An up-to-date policy must define a clear chain of command that deviates from the standard administrative hierarchy. Many cultural institutions now adopt the Incident Command System (ICS), a "supercharged" management structure designed specifically for crisis scenarios Lyall, (2021). The policy should document specific roles, such as the Incident Commander, Safety Officer, and Liaison Officer. It is essential that these roles are assigned to positions rather than specific names alone, though a current contact list of the individuals currently filling those roles must be appended and updated quarterly to account for staff turnover.

Collection Salvage Priorities: In a disaster, it was often impossible to save everything. A documented policy must include a "Priority Salvage List" that identifies which materials are most critical to the institution’s mission. These priorities are typically categorized into tiers: Tier 1: Irreplaceable items (unique manuscripts, rare books, legal charters), Tier 2: Items essential for business continuity (administrative records, servers), Tier 3: High-value or high-use items that are difficult to replace and Tier 4: Replaceable general collections. Without this documented list, recovery teams may waste precious time salvaging easily replaceable paperbacks while rare artifacts deteriorate.

Immediate Emergency Response Procedures: This section provides the "action steps" for the first hour of an emergency. An up-to-date policy includes specific protocols for different types of incidents, such as "Active Shooter," "Fire," "Medical Emergency," or "Water Leak." For example, the policy should detail the location of all fire extinguishers, water shut-off valves, and electrical panels Onyango, (2018). Modern policies also incorporate digital response, such as how to handle a ransomware attack

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or a server failure, ensuring that the library's "digital collection" is protected alongside its physical assets.

Resource and Supply Inventories: A policy is only as good as the tools available to execute it. Documented plans must include an inventory of "Disaster Kits" located on-site, containing items like plastic sheeting, sponges, flashlights, and blotting paper Furthermore, an up-to-date policy maintains a list of external vendors and emergency services, such as commercial freeze-drying companies, restoration specialists, and local emergency management agencies Corrigan, (2018). These contact details must be verified at least twice a year to ensure that phone numbers and service agreements remain valid.

2.2 The availability of physical disaster prevention and response equipment (e.g., fire extinguishers, smoke detectors, water sensors).

The evaluation of physical disaster prevention and response equipment specifically fire extinguishers, smoke detectors, and water sensors reveals a landscape of high technological reliability but significant variability in human maintenance and regulatory compliance American Library Association. (2023). These devices represent the "first line of defence" in the built environment, transitioning a disaster from a potential catastrophe to a manageable incident.

Fire Extinguishers: Manual Suppression Availability Fire extinguishers are the most ubiquitous manual active fire protection tools WHO, (2017). Their availability is strictly governed by international and national codes, such as the National Fire Protection Association (NFPA) 10, which mandates specific placement, types, and inspection intervals.

Classification and Suitability: The effectiveness of available extinguishers depends on matching the agent to the hazard. Class A (solids), B (liquids), C (electrical), D (metals), and K (kitchen fats) extinguishers must be strategically placed Onyango, (2018). In modern commercial settings, Multi-Purpose Dry Chemical (ABC) extinguishers are the most common, though they may cause collateral damage to sensitive electronics. Maintenance Gaps: While physically present, the "readiness" of extinguishers is often

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compromised. Studies in facility management indicate that without monthly visual inspections and annual professional maintenance, pressure loss or chemical caking can render the device useless during an emergency.

Smoke Detectors and Fire Alarm Systems: Early Detection Smoke detectors are the most critical life-safety components in residential and commercial structures. Their availability has increased exponentially due to "Life Safety Codes" (NFPA 101), yet their functional reliability remains a point of concern. Ionization vs. Photoelectric: Availability is split between two technologies. Ionization detectors are more responsive to flaming fires, while photoelectric detectors excel at sensing smouldering fires Sakamoto, (2015). Modern recommendations suggest "dual-sensor" alarms to ensure comprehensive coverage. Power Reliability: The shift from battery-only units to hardwired systems with battery backups has significantly increased the "up-time" of these devices. However, the "dead battery" phenomenon remains a leading cause of smoke detector failure in residential fatalities. Smart Integration: There is a growing trend toward "Smart" detectors that provide remote notification via mobile apps, increasing the availability of information even when the building is unoccupied.

Water and Flood Sensors: Mitigation of Property Damage: Unlike fire equipment, water sensors (or leak detectors) are often not mandated by building codes, making their availability more common in high-value commercial real estate and "smart homes" than in general housing. Point-of-Leak vs. Flow-Based: Physical equipment ranges from simple "puck" sensors placed near water heaters to sophisticated flow-based shut-off valves. The latter represents the pinnacle of mitigation, as they can automatically close the main water line when an anomaly is detected Corrigan, (2018). Industrial Application: In data centres and archives, specialized "rope sensors" are used to detect moisture across large floor areas, providing a high level of protection for water-sensitive assets.

Systemic Challenges to Equipment Efficacy: The mere presence of equipment does not equate to disaster resilience. Evaluation of these systems must account for: Human Factor: Fire extinguishers require training to operate effectively (the PASS method: Pull, Aim, Squeeze, Sweep). Without user competency, the physical equipment is a

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"passive" asset in an "active" situation. Obsolescence: Smoke detectors have a functional lifespan of approximately 10 years. Many existing facilities house "available" equipment that has surpassed its reliable service life. Interconnectivity: Modern disaster mitigation Favors integrated systems where a smoke detector triggers a building-wide alarm and notifies the fire department automatically. Standalone devices, while available, offer a lower tier of protection.

2.3 The Level of Staff Training and Awareness Regarding Disaster Management.

The training of staff members to handle emergency situations is a multifaceted process that transcends simple instruction; it involves the cultivation of psychological resilience, technical proficiency, and organizational coordination. According to authoritative texts on occupational safety and disaster management, effective training ensures that employees do not merely react out of fear but respond through "muscle memory" and cognitive scripts developed during rigorous preparation American Library Association. (2023). The proficiency of staff in emergency response is typically measured by their ability to execute the Emergency Action Plan (EAP) under duress. This training is often mandated by regulatory bodies such as the Occupational Safety and Health Administration (OSHA) and is grounded in the principles of the Incident Command System (ICS), which provides a standardized hierarchy for managing crises.

Mastery of the Emergency Action Plan (EAP): Staff members are trained to be intimately familiar with the specific Emergency Action Plan of their organization. This includes knowing the "chain of command" and the specific triggers that necessitate an evacuation versus a shelter-in-place order Onyango, (2018). According to The Handbook of Loss Prevention and Crime Prevention, a well-trained staff member can identify at least two exit routes from any location in the building and understands the designated assembly points where headcounts occur.

Technical Proficiency in Life-Safety Equipment: Training involves hands-on experience with emergency tools. This includes the "PASS" method (Pull, Aim, Squeeze, Sweep) for fire extinguishers and the operation of Automated External Defibrillators (AEDs). In high-risk environments, staff are also trained in the use of

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Personal Protective Equipment (PPE) and specialized shut-off valves for utilities like gas and electricity to prevent secondary disasters

First Aid and Medical Stabilization: A critical component of staff training is the ability to provide immediate "first responder" care. Staff are often certified in Cardiopulmonary Resuscitation (CPR) and basic first aid Sakamoto, (2015). This training focuses on stabilizing victims—addressing severe bleeding, airway obstructions, or shock until professional Emergency Medical Services (EMS) arrive on the scene.

Psychological Preparedness and Stress Management: Advanced training programs incorporate "stress inoculation," which exposes staff to simulated high-pressure environments. This helps mitigate the "freeze" response common in disasters Onyango, (2018). By practicing under realistic conditions, staff learn to maintain "situational awareness," allowing them to process information and make decisions even when the environment is chaotic or life-threatening.

Role-Specific Responsibilities (The ERT Framework) Staff are often divided into an Emergency Response Team (ERT) with specialized roles Corrigan, (2018). Training ensures that the Incident Commander knows how to lead, the Communication Lead knows how to interface with external agencies, and the Floor Wardens know how to sweep areas for stragglers. This division of Labor prevents the "bystander effect" where everyone assumes someone else is taking charge.

Evacuation and Shelter-in-Place Protocols: Staff are trained to distinguish between different types of threats that require opposite physical responses. For example, a fire requires immediate egress, whereas a chemical leak or active shooter may require "sheltering-in-place" or "locking down." Training includes the physical mechanics of securing doors, silencing devices, and staying away from windows.

Communication and Notification System: Effective response relies on the ability to spread information quickly WHO, (2017). Staff are trained to use internal notification systems, such as public address (PA) systems, two-way radios, or emergency notification apps. They are also taught the "scripts" for clear, concise communication to avoid spreading panic among customers or other employees.

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Post-Incident Recovery and Reporting: The final stage of training involves the "after-action review." Staff are taught how to document the timeline of an emergency, report injuries accurately, and participate in debriefings. This stage is vital for organizational learning, as it identifies gaps in the initial response and allows for the refinement of future safety protocols.

The training of staff for emergency situations is an ongoing cycle of assessment, instruction, and practice. It transforms a group of individuals into a cohesive unit capable of protecting life and property. By focusing on both technical skills like firefighting and first aid and soft skills like leadership and communication organizations create a "culture of safety." Ultimately, the effectiveness of this training is not found in the manuals themselves, but in the swift, calm, and decisive actions taken by employees when every second counts.

2.4 Major Constraints in Establishing a Robust Disaster Preparedness Program

Establishing a robust disaster preparedness program was a complex undertaking that requires the integration of logistical, financial, social, and political frameworks. Disaster preparedness was defined as the knowledge and capacities developed by governments, response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent, or current hazard events or conditions Onyango, (2018). Despite the clear necessity for such programs, particularly in the face of escalating climate-related risks and biological threats, several systemic barriers often impede their successful implementation. These constraints range from the "disaster-response cycle" of funding to the inherent difficulties in coordinating multi-jurisdictional stakeholders. The following sections detail the eight major constraints that hinder the establishment of comprehensive disaster preparedness programs, drawing primarily from authoritative academic texts on emergency management and disaster sociology.

Financial Limitations and the "Cycle of Neglect": One of the most significant hurdles is the lack of sustained, long-term funding. In many political systems, funding for disaster management is reactive rather than proactive. This was often referred to as the "disaster-response cycle," where resources are flooded into a region immediately

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following a catastrophe, but interest and financial support wane during the "inter-disaster" periods. Governments frequently prioritize immediate economic concerns over the "invisible" benefits of mitigation and preparedness American Library Association. (2023). Because the success of a preparedness program is measured by what does not happen (i.e., lives saved and damages avoided), it was often difficult for policymakers to justify large expenditures to taxpayers compared to more visible infrastructure projects.

Fragmentation of Jurisdictional Authority: Disasters do not respect administrative boundaries, yet preparedness programs are often confined by them. A robust program requires seamless coordination between local, state, federal, and international agencies. However, fragmentation often leads to "siloed" information and conflicting protocols. In the United States, the National Incident Management System (NIMS) attempts to standardize this, but local autonomy and varying levels of resource availability often create "weak links" in the chain of command. This jurisdictional complexity can lead to delays in communication and a lack of clarity regarding who holds ultimate authority during the initial phases of a crisis.

Inadequate Hazard Vulnerability Analysis (HVA): A program was only as strong as the data upon which it was built. Many organizations and municipalities fail to conduct comprehensive Hazard Vulnerability Analyses (HVAs) that account for "cascading failures" where one disaster triggers another (e.g., an earthquake causing a dam failure and subsequent flooding). Constraints in technical expertise or access to advanced modelling software mean that many preparedness plans are based on historical data that may no longer be accurate due to climate change or rapid urbanization. Without an accurate assessment of risk, resources are often misallocated to low-probability events while high-consequence threats remain unaddressed.

Human Capital and Training Deficits: The effectiveness of any preparedness plan relies on the people executing it. A major constraint is the lack of a consistently trained workforce. High turnover rates in emergency management positions and the reliance on volunteers in many rural areas create a "knowledge drain." Furthermore, "just-in-time" training provided only when a threat is imminent is often insufficient for

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complex tasks like managing high-consequence infectious diseases (HCID) or coordinating large-scale evacuations Sakamoto, (2015). Robust preparedness requires regular, high-fidelity simulations and exercises, which are often skipped due to the time and cost involved.

Socioeconomic Disparities and Public Engagement: A preparedness program that does not account for the social vulnerability of the population was destined to fail. Factors such as poverty, lack of transportation, language barriers, and physical disabilities significantly impact a community's ability to follow preparedness directives Onyango, (2018). Research indicates that subjective perception of risk is often lower in economically vulnerable groups, who may prioritize daily survival over preparing for a low-probability disaster. If the public was not engaged or does not trust the authorities, even the most technologically advanced warning systems will be ignored.

Technological and Infrastructure Gaps: While technology offers tools for early warning and communication, it also introduces vulnerabilities Corrigan, (2018). Many preparedness programs rely heavily on digital infrastructure that may be the first thing to fail during a disaster (e.g., power grid failure or cellular network congestion). Furthermore, there is a "digital divide" where smaller or less affluent jurisdictions lack access to the satellite imagery, GIS mapping, and real-time data analytics that are essential for modern disaster management. The inability to maintain redundant, "hardened" communication systems remains a primary constraint.

Political and Policy Short-termism: Disaster preparedness requires a multi-decadal commitment, but political cycles are typically two to six years WHO, (2017). This leads to "short-termism," where leaders focus on policies with immediate, visible results rather than long-term resilience strategies. Additionally, the legal and regulatory environment can be a constraint; for example, strict privacy laws or "red tape" can hinder the rapid sharing of critical data between health departments and emergency responders during a biological event. Without a stable policy environment that transcends political transitions, preparedness programs often suffer from shifting priorities and inconsistent leadership.

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Establishing a robust disaster preparedness program was hindered by a synergy of financial, structural, and social constraints. The most pervasive challenge is the shift from a reactive to a proactive mindset moving away from a system that rewards disaster response to one that values and funds long-term mitigation and readiness. Overcoming these barriers requires not only increased funding but also a multidisciplinary approach that integrates social equity, technological redundancy, and cross-jurisdictional cooperation. As the frequency of "all-hazards" events increases, addressing these eight constraints becomes not just a matter of policy, but a fundamental requirement for societal survival.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The term research methodology referred to as research method, usually encompasses procedures followed to analyze and interpret the data gathered Kumar, (2005). This chapter is all about the methods that will be used to collect data during the research period. In addition, it explains the research design, research type, research area, population, sample size, sampling techniques, data collection methods, research instruments, validity and reliability of instruments, data processing, data analysis and research ethics.

3.1 Research Design

Research design refers to an arrangement or plan of research work for collection and analysis of data (Hancock, 2021). The most important decision in research design is the choices to be made concerning the research approach since it helps to determine how a particular studied. The researcher employed a case study design as only single case studied.

3.2 Research Approach

A research approach was a plan of action that gives direction to conduct research systematically and efficiently (Daniel, 2019). The research methodology comprises three research approaches according to Neuman (2003) which are qualitative, quantitative and mixed method approach. The researcher used a mixed method approach where both qualitative and quantitative methods will be used to collect and analyze data. In this study, these approaches will help the researcher to obtain more details and specific information about the problem of the study. Also, it give researcher a freedom to use narration and numbers during data analysis. The researcher used mixed approach as it allows the collection of a wider range of data for a deeper and clear understanding of the problem.

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3.3 Area of the study

Ngechu (2014) defines an area of study as the limit of the study or problem. The studied conducted at Dar es salaam Institute of Technology in Dar es salaam. The Dar es salaam Institute of Technology is selected because; there are few numbers of related studies that have been conducted in the area as well as the familiarity of the researcher with the study environment.

3.4 Population

According to Cresswell (2012), a population was defined as a group of individuals who have similar features that help them to be different from other groups. As it can be an entire collection of people, animals, plants or things from which we may collect data. It was the entire group we are interested in and wish to describe or draw a conclusion. In this study, the researcher used a population not less 400 respondents from Dar es salaam Institute of Technology which include Staff and Library Users.

3.5 Sample size

According to Kumar (2005) sample size was the small number of individuals which selected from population as generalization of the study. The sample size of this study 30 respondents that comprised 20 Library users and 10 Library staff as the key informants of the study.

3.6 Sampling Procedures

Sampling techniques are methods where researcher uses to select a population's representatives that can be used to make inferences or generalization on the whole population concerning an existing theory (Taherdoost, 2018). In this study, both probability and non-probability sampling techniques will be used to select the sample required by the study. The probability sampling technique that used in the study will be random sampling technique. This technique used to select students to fill questionnaires. On the other hand, a non-probability technique called purposively sampling will have used to obtain key informant from library staff that will be included in interviews.

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3.6.1 Convenient Sampling Technique

Convenience sampling was selecting participants because they are often readily and easily available. Typically, convenience sampling tends to be a favored sampling technique among users as it was inexpensive and an easy option compared to other sampling techniques (Taherdoost, 2016). Convenience sampling often helps to overcome many of the limitations associated with research (Taherdoost, 2016). It was a matter of taking what you can get easily.

3.7 Data Collection Method

Data collection was the process of gathering and measuring information on the variable of interest in an established systematic style that enables one to answer stated research questions (Kabir, 2016). The method of collecting data to be used by researcher will include both primary and secondary sources of information. Primary data is expected to be collected from respondents, while secondary data will be obtained from the documents such as reports, policy paper etc. In this study, the researcher will use two major sources of data collection which include primary and secondary sources since the combination of these methods improves validity and reliability.

3.7.1 Primary Data

Kamuzora & Adam, (2008). Primary data was the data collected by the researcher himself/herself or by research assistants from the field for the purpose of answering the research question Primary data was flexible, wide coverage, high response rate, uniformity to mention a few. The primary data from the field will constitute the major part of the data used in collection of the data. Primary data for the study will be collected based on the use of structured and unstructured questionnaire and interview method. Primary data will be collected from the sample population by using questionnaire, and interview methods.

3.7.1.1 Questionnaire Method

According to Kabir (2016) questionnaire was a research tool which includes a series of written and printed questions that are in a systematic order to gather information from the respondents. Then allowing them to attempt the questions individually and

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yield the filled queries to the researcher. In this study, the researcher will apply both close-ended and open-ended questions, whereas open-ended questions provide freedom to respondents to provide more details while close-ended questions usually do not provide freedom to the respondents for more explanation (Creswell 2012). This study will apply questionnaire method to students, since it helps to eliminate bias to the respondents.

3.7.1.2 Interview Method

Interview was one of the instruments of data collection that involves one to one meeting at which one is asked the target questions related to the research problem (Rwagoshora, 2006). This study will use a semi-structured interview to obtain data, whereas a semi-structured interview was a kind of interview that employs a blend of closed-ended questions and open-ended questions. The researcher will use this method to collect key information from Record staff since it allows rearranging any query accordingly to acquire appropriate information.

3.7.2 Secondary Data

Secondary data refers to data that was collected by someone other than the user (Raj, 2005). Secondary data will be collected by reviewing documents related to the study. Secondary data in this study will be collected through reviewing research reports of other scholars' theses and dissertations, books, journals and articles (secondary sources) related to the study.

3.8 Data analysis and processing

Krishna (2004) defines data analysis as the means of critical examination of the assembled and grouped data for studying the characteristics of the object under the study and for defining arrangements of association among the variable connecting to it. The researcher will obtain both quantitative and qualitative data, and each has it was way of analyzing data. As in quantitative, data can be analyzed by a statistical method by using excel and Statistical Product and Service Solutions (SPSS) but qualitative data will be analyzed by using the content analysis method since qualitative data are in form of the word not numerical.

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3.9 Research Ethics

Dannie. (2005). Ethics are moral standards that can be followed in situations where there can be potential harm or actual harm to an individual or a group and awareness of ethical issues in research protects the integrity of the researcher and ensures honest research results. The researcher expects to observe legal ethical matters within the study area. The respondents will be aware of reasons, objectives, and significance of the research study due to clearly explained to respondents. Data that will be collected will respect the dignity, privacy and confidential and used for academic purpose only not otherwise. Therefore, the researcher expects to observe legal ethical matters within the study area and, researcher will be aware of reasons, objectives, and significance of the research.

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CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.0.Introduction

This chapter delves into the critical examination of the collected data, providing a comprehensive analysis that underpins the research findings. This chapter was dedicated to the systematic presentation and discussion of the data, utilizing various statistical and graphical methods to elucidate the patterns, trends, and significant outcomes. The analysis aims to test the hypotheses set forth in the previous chapters and to interpret the results in the context of the existing literature. Through a detailed exploration of the data, this chapter seeks to draw meaningful conclusions and insights that contribute to the overall objectives of the research.

4.1. Demographic information

4.1.1 Gender of Respondents

The respondents were asked to indicate their gender; Information on gender of respondents was needed by researcher so as to identify their participation of respondents depending to their gender. The study shows that both male and female were used to escape bias where Table 4.1 below summarizes the results.

Table 4.1: Information on Gender of Respondent (N=30)

Student No.25			**Academic Staff No.5**	
Gender	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Male	8	32%	3	60%
Female	17	68%	2	40%
Total	**25**	**100%**	**5**	**100%**

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Source: Field Study (2026)

The finding in table 4.2 above shows that 11 (37%) were with male while 19 (63%) were female. The findings in Table 4.1 suggest a nearly equal gender distribution among the respondents of the study. This balance indicates that both male and female perspectives are well-represented in the data, allowing for a more comprehensive understanding of the study's subject matter. The slight predominance of male respondents does not overshadow the significant female participation, ensuring that gender-related insights can be drawn with reasonable confidence.

4.1.2. Distribution of Respondents by Age

The respondents were requested to mention their respective age. The question was asked to the respondents in this study due to its different ages where table 4.2 below summarized the results

Table 4.2. Distribution of Respondents by Age (N=30)

Student No.25			**Academic Staff No.5**	
Age	**Frequency**	**Percentage**	**Frequency**	**Percentage**
21-30	**5**	**20%**	**2**	**40%**
31-39	**14**	**56%**	**2**	**40%**
40-Above	**6**	**24%**	**1**	**20%**
Total	**25**	**100%**	**5**	**100%**

Source: Field Study (2026)

The findings show that, 7 (23%) of student and library staff were with age of 21-30 years and, 16 (54%) of student and library staff were with age range of 31-39 years and 7 (23%) of student and library staff were with age range of 40 and above years.

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the age distribution reveals a diverse participant pool at DIT, with the majority of participants (54%) being between 31 and 39 years old. The remaining participants are split evenly between the 21-30 and 40+ age ranges. This information is crucial for understanding the context of the study and interpreting the findings, as age can influence academic experiences, motivations, and approaches to sharing information. This distribution implies that the majority of the respondents are in their early to mid-career stages, potentially highlighting the active participation and engagement of individuals in this age bracket within the context of the study.

4.1.2. Education Level of Respondents

The entrepreneurs were asked to indicate their level of education; Information on education of respondents was needed by researcher so as to identify the participation of respondents depending to their level of education and data are indicated in table 4.3 below.

Table 4.3: Education Level for respondents (N=30)

Level of education	**Frequency**	**Percentage**
Certificate	12	40%
Diploma	13	43.3%
Degree	3	10%
Masters	2	6.6%
Total	**30**	**100%**

Source: Field Study (2026)

The findings show that 12 (40%) were certificate level of education, 13 (43.3%) were with diploma level of education and 3 (10%) were with Degree level of education and 2(6.6%) were with master level of education.

Here's a continuation of Chapter Four, building on the demographic section you already have (4.1–4.1.2) and moving into the substantive findings tied to your four specific objectives and the questionnaire in Appendix II.

4.2 Existence of a Formal, Written Disaster Management Plan

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This section addresses the first specific objective determining whether DIT Library has a documented, up-to-date disaster management policy drawn from Questions 1 and 4 of Section A.

Table 4.4: Existence of a Written Disaster Management Plan (N=30)

	Frequency	**Percentage**	**Frequency**	**Percentage**
Yes, and I have read it	1	20%	3	12%
Yes, and I have read it	1	20%	5	20%
Yes, but I have not read it	1	20%	5	36%
No, there is no written plan	1	20%	8	32%
I am not sure	1	20%	8	32%
Total	5	**100%**	25	100%

Source: Field Study (2026)

The findings show that only 4 respondents (13.3%) out of the total 30 confirmed both the existence and their own familiarity with a written disaster management plan, while 11 respondents (36.7%) stated outright that no such plan exists, and the remainder were uncertain. This is consistent with Ahenkorah-Marfo and Borteye's (2010) observation that many academic libraries in developing countries operate without a documented policy despite awareness of disaster risk. The high proportion of "not sure" responses (30%) further suggests that even where a plan may exist, it has not been effectively communicated to staff and users, undermining the "living framework" principle discussed in the literature review (WHO, 2017).

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Table 4.5: Designation of Disaster Response Leadership

Response	Frequency	Percentage
The Head Librarian	**9**	**30%**
A designated Disaster Committee	**3**	**10%**
Campus Security	**6**	**20%**
No one has been designated	**12**	**40%**

Source: Field Study (2026)

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Notably, 40% of respondents indicated that no individual or team has been designated to lead disaster response. This finding echoes Lyall's (2021) argument that a functional Incident Command System requires clearly assigned roles; without this, response during an actual emergency is likely to be disorganized.

4.3 Availability of Physical Disaster Prevention and Response Equipment

This section responds to the second specific objective, drawing on Questions 3, 5, 6, 9, 11, 12, 16, and 19.

Table 4.6: Functionality of Fire Detection Systems

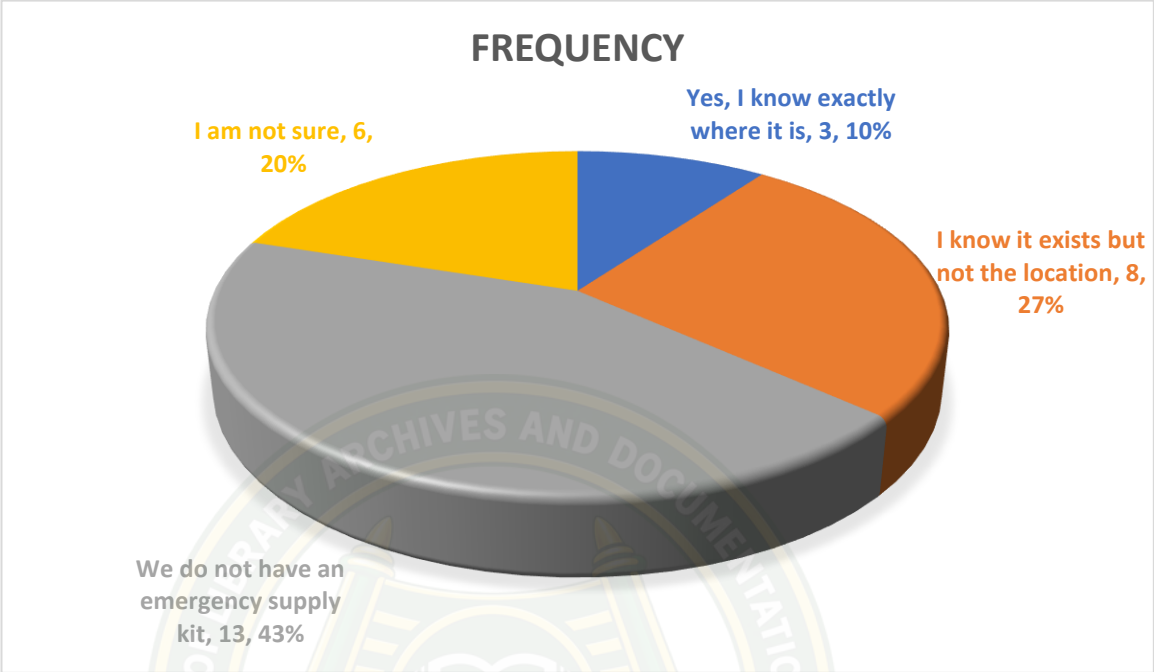
Response	Frequency	Percentage
Excellent and regularly tested	4	13.3%
Functional but rarely tested	14	46.7%
Non-functional	7	23.3%
Non-existent	5	16.7%

Source: Field Study (2026)

Nearly half of the respondents (46.7%) reported that fire detection equipment is present but rarely tested, while 40% indicated the systems were either non-functional or absent altogether. This supports the concern raised in Section 2.2 that "maintenance gaps" often compromise the reliability of otherwise available equipment (WHO, 2017), and reflects the general trend where physical presence of equipment does not guarantee operational readiness.

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Figure 4.7: Awareness of Emergency Supply Kit ("Disaster Closet")



Source: Field Study (2026)

A majority of respondents (43.3%) reported that no emergency supply kit exists at all, an important gap given Corrigan's (2018) emphasis on disaster kits containing items such as plastic sheeting, blotting paper, and flashlights as basic first-response tools. Only 10% of respondents were confident of the kit's exact location, suggesting that even where supplies may exist, accessibility during a real emergency would be compromised.

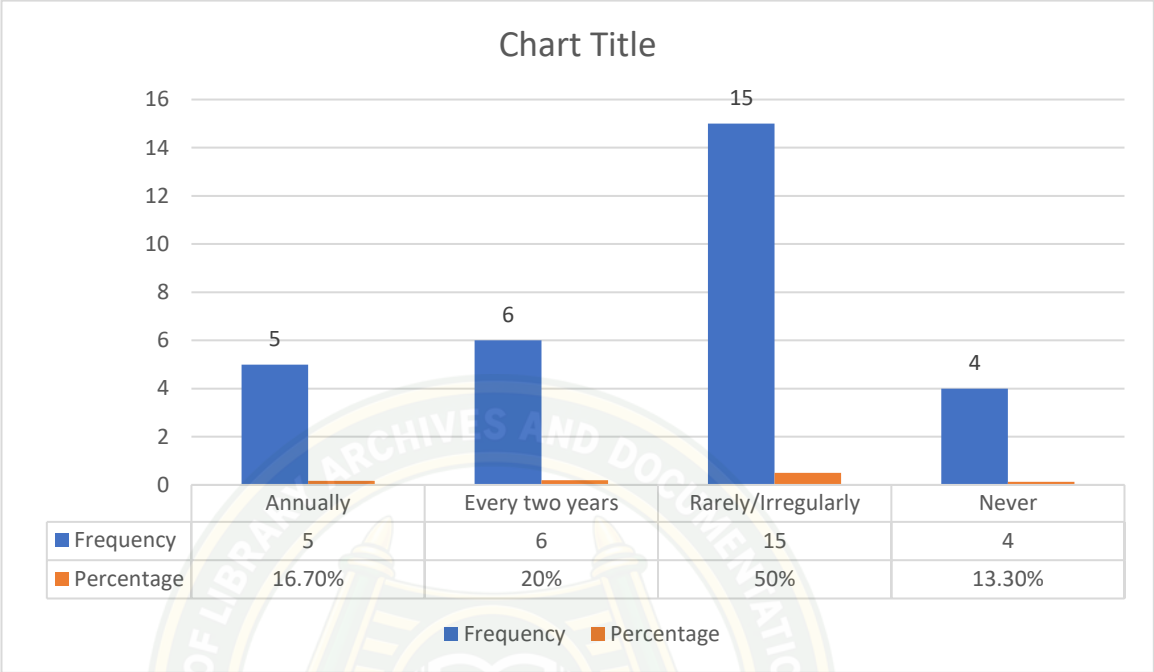
Confidence in fire extinguisher operation was similarly modest: only 16.7% of respondents reported feeling "very confident," while 33.3% admitted they had "never been shown how" to use one a gap directly relevant to the PASS method (Pull, Aim, Squeeze, Sweep) discussed in the literature review.

4.4 Level of Staff Training and Awareness Regarding Disaster Management

This section addresses the third specific objective,

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Figure 4.8: Frequency of Disaster Response Training or Fire Drills



Source: Field Study (2026)

Half of the respondents indicated that training occur only "rarely/irregularly," and a further 13.3% reported that none had ever taken place. This finding aligns with the "just-in-time training" problem identified in Section 2.4, where preparedness training was offered only reactively rather than as a sustained institutional practice (Sakamoto, 2015). Such irregularity undermines the "muscle memory" and cognitive readiness that authoritative sources associate with effective emergency response.

Table 4.9: Confidence in Staff-Led Evacuation (User Perspective)

Response	Frequency	Percentage
Highly confident	3	10%
Somewhat confident	10	33.3%
Not confident	11	36.7%
Never thought about it	6	20%

Source: Field Study (2026)

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From the user perspective, only 10% expressed high confidence in staff's ability to lead them to safety, while 36.7% expressed no confidence at all. This gap between institutional intention and perceived readiness reinforces Onyango's (2018) point that psychological preparedness and visible competence not merely formal designation of roles determine how trustworthy an emergency response appears to those being led.

4.5 Major Constraints Hindering Effective Disaster Preparedness

This section addresses the fourth specific objective, drawing primarily on open responses and Question 22.

Table 4.10: Perceived Greatest Threat to DIT Library

Response	Frequency	Percentage
Fire	14	46.7%
Water damage (floods/leaks)	9	30%
Theft/Vandalism	4	13.3%
Pests (termites/Mold)	3	10%

Source: Field Study (2026)

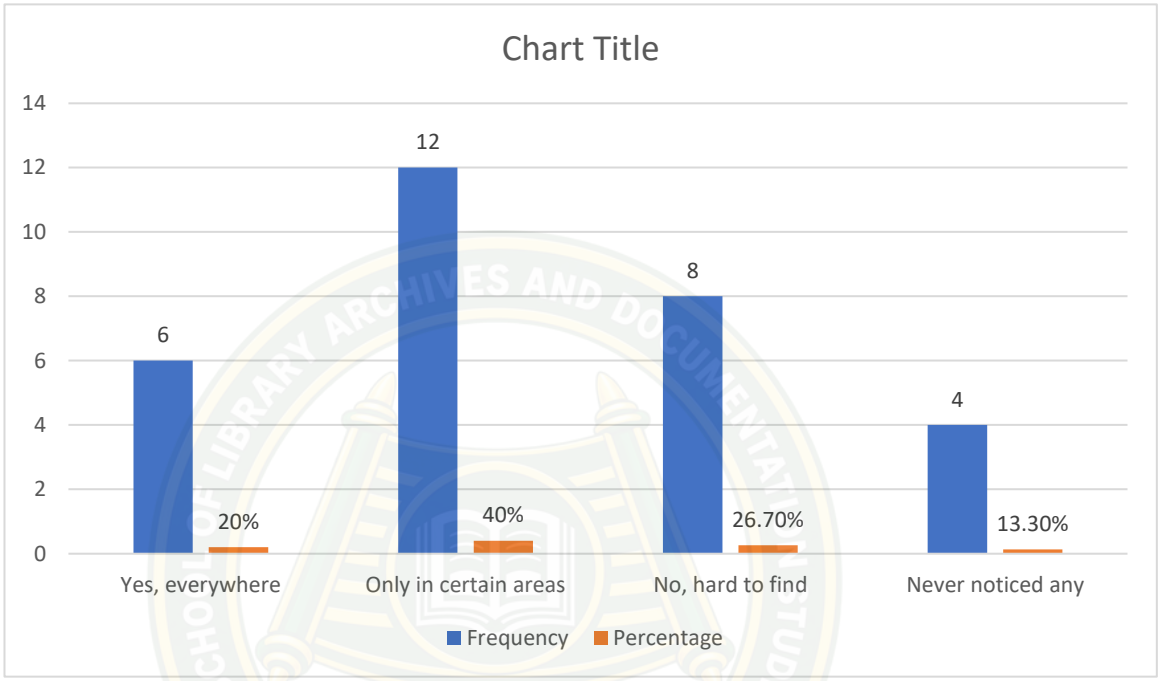
Fire was identified by the largest share of respondents (46.7%) as the greatest perceived threat, followed by water damage (30%). Interview responses from library staff further pointed to financial constraints, absence of a dedicated disaster budget, and lack of institutional prioritization as the primary barriers to establishing stronger preparedness measures — consistent with the "cycle of neglect" described in Section 2.4, whereby preparedness investment is deprioritized until a disaster actually occurs (American Library Association, 2023). Staff also cited limited coordination with the Institute's maintenance department (only 23.3% rated communication as "very effective") as a recurring obstacle to timely risk mitigation.

4.6 User Safety and Awareness (Section B Findings)

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Complementing the staff-focused findings above, Section B of the questionnaire captured user perceptions of physical safety features.

Figure 4.11: Visibility of Emergency Exit Signs



Source: Field Study (2026)

Only one-fifth of respondents reported that exit signage was clearly visible throughout the library, while 40% reported that signage was inconsistent. Similarly, when asked whether they had ever been informed of the library's evacuation assembly point, over half of the respondents (56.7% combined across "no idea" and "didn't know there was an assembly point") indicated a lack of awareness pointing to a communication gap between the institution's safety infrastructure and its day-to-day users.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents a summary of the outcome from the investigation categorized as per the objectives. The conclusion in relation to the outcome is also drawn and appropriate recommendations made in line with this study.

5.2 Summary

First, to establish the level of disaster preparedness and planning in sustaining services at NIT University digital library. The findings indicated that the level of disaster preparedness and planning at the digital library in NIT University was low. According to the outcome, the library staff admitted that the digital library could experience disasters. The respondents admitted that the digital library was not exempted from disasters like any other organization or section within the University. The outcome pointed at an availability of awareness on the part of the library staff on the likelihood of experiencing disasters

Second, to find out the disaster preparedness and planning training the staff have undergone in sustaining services at Egerton University digital library. The findings indicate that the training on planning and preparedness of disaster wasn't adequate. According to the outcome, the library has not been keen in staff training on planning and preparedness in disaster. These results imply the lack of seriousness and support that is directed to the training of library staff in preparing and planning for disasters.

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Third, to establish the disaster preparedness and planning equipment's that can sustain services at NIT university digital library. The findings indicate that the equipment's related to planning and preparedness on disasters were not supplied adequately. This is due to the outcome of responses which pointed to unavailability of adequate disaster preparedness equipment's. Availability of disaster preparedness and planning in digital libraries is therefore a matter of concern. To be able to adequately prepare and plan for disaster, a library needs to arm itself with the necessary disaster preparedness equipment's. The few available disaster equipment's were also not strategically positioned within the digital library, therefore not making it possible to effectively tackle disaster when it happens. The available disaster equipment's were also found to be inappropriate for disaster preparedness. The findings showed that the library staff were not aware of the positioning of the disaster equipment's and they also were not aware of how to operate them. These results indicate that the library staff lack the prerequisite skills of operating the available disaster preparedness and planning equipment's thus if a disaster should occur, then they will in a position to fight it.

Lastly, the study sought to find if disasters will affect provision of services at the digital library. The findings indicate that the in the event of disasters happening services of digital library will be affected. The outcome showed that services related to the digital library will be interrupted when a disaster strikes. This is because the availability of the digital resources will be affected hence rendering the services unavailable. The outcome showed that disasters will affect the consistency of service sustainability in the library.

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5.3 Conclusion

It was established that disasters were not exempted from occurring in digital libraries just as it wasn't in any part of other organizations. The library staff were aware of the likelihood of the digital library experiencing disaster, therefore the likelihood of the staff preparing and planning for these disasters. The library was also aware that the library was at risk of disasters though it never had a documented disaster preparedness plan for the digital library. The organizations disaster preparedness policy also never covered the digital library. The study established that training on members of staff within the digital library was not keenly addressed in regards to planning and preparedness of disasters. The disaster preparedness training never considered the needs of the digital library, the personal needs of the staff, nor the particular needs of the actual section in which the staff were allocated to within the library. This means therefore that the disaster preparedness and planning training did not considered training needs analysis when it was being developed.

The study concluded that equipment's for planning and preparing for disasters were not adequate within the digital library. This made it inadequately equipped for fighting disasters. The available disaster preparedness equipment's were not strategically positioned within the digital library hence not easily accessible when needed. The disaster preparedness equipment's were also not appropriate for tackling disasters. The library staff were also not aware of their availability and how to operate the disaster preparedness equipment's. The library staff lacked the prerequisite skills of operating the available disaster preparedness and planning equipment's thus if a disaster should occur, then they will in a position to fight it.

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The study findings concluded that some of the things hampering the planning and preparedness of disasters included inadequacy of equipment's and funds together with staff training. The other challenge was lack of support from the management which is required in implementing a disaster preparedness plan. The library staff were not adequately trained in disaster preparedness and the equipment's were not regularly serviced.

5.4 Recommendations

5.4.1 Policy recommendations

i. The management of the digital library together with the institution make available necessary support and training be accorded to staff manning the digital library on planning and preparedness of disasters.

ii. A policy on planning and preparing for disasters be well developed and captured in relation to digital libraries and be part of the overall institutions policy on planning and preparedness of disasters. This will enable it gain the much needed seriousness and resources.

iii. Training on planning and preparedness of disasters be developed in a mechanism that is regular, systematic and structured.

5.4.2 Recommendations for further research

This study was focused on disaster preparedness in relation to digital libraries. The study was also based on the library at NIT University. It is important to have an overall view on disaster preparedness in relation to other academic libraries especially within public universities to have a clear picture. This study therefore recommends for a selective study encompassing a number of libraries within public libraries in Tanzania.

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As it has been established by this study, finances play a significant role in implementing disaster preparedness plans. Public universities in Tanzania are not as funded as the other private universities. This study therefore recommends a comparative study on this area to look at how prepared public and private universities are.

University digital library. The findings indicate that the training on planning and preparedness of disaster wasn't adequate.

According to the outcome, the library has not been keen in staff training on planning and preparedness in disaster. These results imply the lack of seriousness and support that is directed to the training of library staff in preparing and planning for disasters. This means that the library staff are either not completely trained or adequately trained in disaster preparedness and planning. In cases where disaster preparedness training was provided, then it did not consider the needs of the digital library as well as the personal needs of the library staff.

5.3 Conclusion

It was established that disasters were not exempted from occurring in digital libraries just as it wasn't in any part of other organizations. The library staff were aware of the likelihood of the digital library experiencing disaster, therefore the likelihood of the staff preparing and planning for these disasters. The library was also aware that the library was at risk of disasters though it never had a documented disaster preparedness plan for the digital library. The organizations disaster preparedness policy also never covered the digital library.

The study established that training on members of staff within the digital library was not keenly addressed in regards to planning and preparedness of disasters. The disaster preparedness training never considered the needs of the digital library, the personal needs of the staff, nor the particular needs of the actual section in which the staff were allocated to within the library. This means therefore that the disaster preparedness and planning training

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The study findings concluded that some of the things hampering the planning and preparedness of disasters included inadequacy of equipment's and funds together with staff training. The other challenge was lack of support from the management which is required in implementing a disaster preparedness plan. The library staff were not adequately trained in disaster preparedness and the equipment's were not regularly serviced.

Based on the outcome of the study, it can be concluded service provision and sustainability would be affected in case of a disaster at the digital library. This is because the resources would become unavailable and it would result in interruption of services until the digital library can recover from that particular disaster. The library will not be in a position to sustainable provide services because of the destruction caused by the disaster.

5.4 Recommendations

5.4.1 Policy recommendations

i. The management of the digital library together with the institution make available necessary support and training be accorded to staff manning the digital library on planning and preparedness of disasters.
ii. A policy on planning and preparing for disasters be well developed and captured in relation to digital libraries and be part of the overall institutions policy on planning and preparedness of disasters. This will enable it gain the much needed seriousness and resources.
iii. Training on planning and preparedness of disasters be developed in a mechanism that is regular, systematic and structured.

5.4.2 Recommendations for further research

This study was focused on disaster preparedness in relation to digital libraries. The study was also based on the library at NIT University. It is important to have an overall view on disaster preparedness in relation to other academic libraries especially within public universities to have a clear picture. This study therefore recommends for a selective study encompassing a number of libraries within public libraries in Tanzania.

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As it has been established by this study, finances play a significant role in implementing disaster preparedness plans. Public universities in Tanzania are not as funded as the other private universities. This study therefore recommends a comparative study on this area to look at how prepared public and private universities.

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APPENDIX I

QUESTIONNAIRE

I am **SABRINA MOHAMMED MASOUDI** a student at school of library achieves and documentation studies (SLADS). I am conducting research as a part of my diploma studies titled as; **An Assessment on Availability of Disasters Preparedness in Academic Library. A case study of Dar es salaam**. Dear respondent, this questionnaire is aimed to gathering data about the study so please remain assured that the questionnaire is anonymous and the information contained in it will be treated as confidential and used for academic purpose only.

SECTION A: STAFF AWARENESS AND INSTITUTIONAL POLICY

This section evaluates the administrative and technical readiness of the library personnel.

1. Does the DIT Library have a written, up-to-date Disaster Management Plan?

A) Yes, and I have read it.

B) Yes, but I have not read it.

C) No, there is no written plan.

D) I am not sure.

2. How often does the library conduct disaster response training or fire drills for staff?

A) Annually.

B) Every two years.

C) Rarely/Irregularly.

D) Never.

3. Are you aware of the location of the "Disaster Closet" or emergency supply kit (e.g., mops, plastic sheeting, gloves)?

A) Yes, I know exactly where it is.

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B) I know it exists but not the location.

C) We do not have an emergency supply kit.

D) I am not sure.

4. Who is primarily responsible for leading the library's disaster response team?

A) The Head Librarian.

B) A designated Disaster Committee.

C) Campus Security.

D) No one has been designated.

5. How would you rate the library's current fire detection system (smoke detectors/alarms)?

A) Excellent and regularly tested.

B) Functional but rarely tested.

C) Non-functional.

D) Non-existent.

6. Is there a backup system for the library's digital catalog and institutional repository?

A) Yes, automated off-site backup.

B) Yes, manual on-site backup.

C) No backup system exists.

D) I am not sure.

7. In the event of a water leak, do you know the procedure for "triage" (prioritizing which books to save first)?

A) Yes, I am fully trained.

B) I have a general idea.

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C) No, I would not know what to do.

D) We have no priority list.

8. Does the library conduct regular "Risk Audits" (checking for faulty wiring, roof leaks, or pests)?

A) Yes, monthly.

B) Yes, annually.

C) Only when a problem occurs.

D) Never.

9. Are the library's rare or high-value collections stored in protective enclosures (acid-free boxes, raised shelves)?

A) Yes, all of them.

B) Only some of them.

C) No, they are on open shelves.

D) We do not have high-value collections.

10. How effective is the communication channel between the library and the Institute's maintenance department?

A) Very effective; repairs are immediate.

B) Somewhat effective; repairs take time.

C) Ineffective; maintenance is slow.

D) There is no formal communication channel.

11. Do you feel confident in your ability to operate a fire extinguisher?

A) Very confident.

B) Somewhat confident.

C) Not confident.

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D) I have never been shown how.

12. Does the library have a formal agreement with external vendors for "freeze-drying" or professional restoration services?

A) Yes, a contract is in place.

B) No, but we have identified potential vendors.

C) No, we have no external support.

D) I am not sure.

SECTION B: USER SAFETY AND AWARENESS

This section evaluates the library from the perspective of students and faculty.

13. Are emergency exit signs clearly visible and illuminated within the library?

A) Yes, everywhere.

B) Only in certain areas.

C) No, they are hard to find.

D) I have never noticed any.

14. Are the library aisles kept clear of obstructions that could hinder an evacuation?

A) Always clear.

B) Usually clear.

C) Often blocked by carts or bags.

D) Always congested.

15. Have you ever seen or been informed about the library's emergency evacuation assembly point?

A) Yes, through orientation/signs.

B) I have seen the signs but don't remember where it is.

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C) No, I have no idea where to go.

D) I didn't know there was an assembly point.

16. How would you rate the visibility of fire extinguishers in the library?

A) Very visible and accessible.

B) Visible but blocked by furniture.

C) Hard to find.

D) I haven't seen any.

17. If an alarm sounded today, would you know which exit is the closest to your current study area?

A) Yes, immediately.

B) I would have to look around.

C) No, I would follow the crowd.

D) I would wait for instructions.

18. Do you feel that the library staff is prepared to lead users to safety during an emergency?

A) Highly confident.

B) Somewhat confident.

C) Not confident.

D) I have never thought about it.

19. Is there an audible public address (PA) system in the library to give instructions during a disaster?

A) Yes, it is loud and clear.

B) Yes, but it is hard to hear.

C) No, there is no PA system.

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D) I am not sure.

20. Are the library windows fitted with security bars that might prevent exit during a fire?

A) No, they are clear.

B) Yes, but they have emergency releases.

C) Yes, and they are permanently fixed.

D) I am not sure.

21. How often do you notice "Safety and Security" posters or instructions on the library notice boards?

A) Frequently.

B) Occasionally.

C) Rarely.

D) Never.

22. In your opinion, what is the greatest threat to the DIT Library?

A) Fire.

B) Water damage (floods/leaks).

C) Theft/Vandalism.

D) Pests (termites/Mold).

23. Does the library provide lockers or safe storage to prevent the theft of personal items during a chaotic evacuation?

A) Yes, adequate lockers.

B) Limited lockers.

C) No lockers available.

D) I don't use them.

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24. Would you be interested in attending a brief "Library Safety and Disaster Awareness" workshop?

A) Yes, definitely.

B) Maybe, if I have time.

C) No, I am not interested.

D) I don't think it's necessary for student

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APPENDIX II

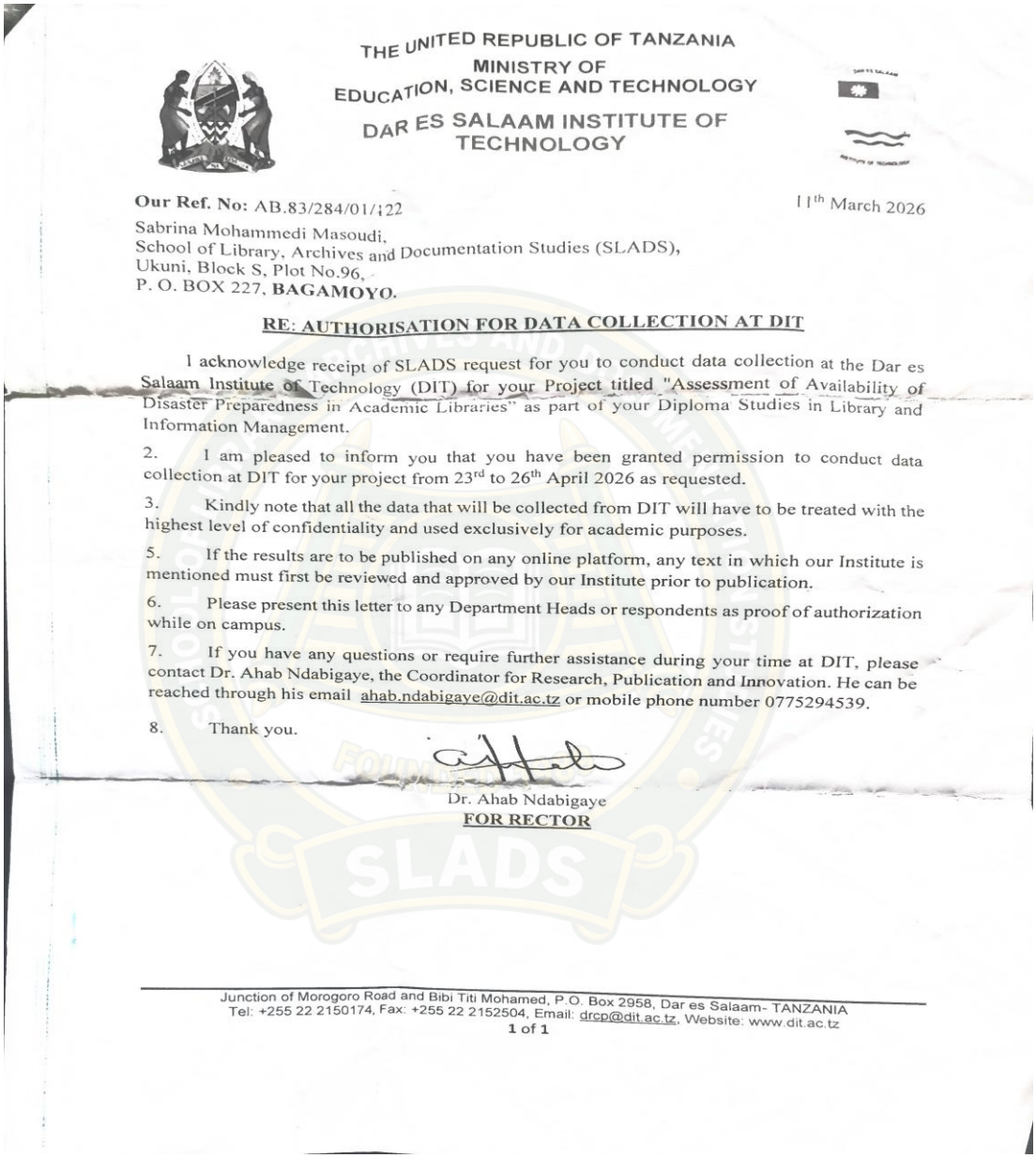
PROPOSED BUEGET FOR THIS STUDY

S/N	ITEMS	TARE	TOTAL
A	TRANSPORT (BAGAMOYO –DARE ES SALAAM-	3000 X 6	18,000/=
B	STATIONARY		
	PHOTOCOPY COST	100 X 50 X 50	250,000/=
	TYPING COST	1,000 X 50	50,000/=
	BINDING OF BOOKLETS	30,000 X 3	90,000/=
C	MEALS ALLOWENCE COST	30 Days X 15,000	450,000/=
	TOTAL		860,000/=

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APPENDIX III

APROVE LETTER



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF
EDUCATION, SCIENCE AND TECHNOLOGY
DAR ES SALAAM INSTITUTE OF
TECHNOLOGY

Our Ref. No: AB.83/284/01/122

11th March 2026

Sabrina Mohammedi Masoudi,
School of Library, Archives and Documentation Studies (SLADS),
Ukuni, Block S, Plot No.96,
P. O. BOX 227, **BAGAMOYO.**

RE: AUTHORISATION FOR DATA COLLECTION AT DIT

I acknowledge receipt of SLADS request for you to conduct data collection at the Dar es Salaam Institute of Technology (DIT) for your Project titled "Assessment of Availability of Disaster Preparedness in Academic Libraries" as part of your Diploma Studies in Library and Information Management.

2. I am pleased to inform you that you have been granted permission to conduct data collection at DIT for your project from 23rd to 26th April 2026 as requested.

3. Kindly note that all the data that will be collected from DIT will have to be treated with the highest level of confidentiality and used exclusively for academic purposes.

5. If the results are to be published on any online platform, any text in which our Institute is mentioned must first be reviewed and approved by our Institute prior to publication.

6. Please present this letter to any Department Heads or respondents as proof of authorization while on campus.

7. If you have any questions or require further assistance during your time at DIT, please contact Dr. Ahab Ndabigaye, the Coordinator for Research, Publication and Innovation. He can be reached through his email ahab.ndabigaye@dit.ac.tz or mobile phone number 0775294539.

8. Thank you.

Dr. Ahab Ndabigaye
FOR RECTOR

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