AN ANALYSIS OF EFFECTIVENESS OF REMOTE MONITORING METHODS USED BY WORLD VISION INTERNATIONAL DURING COVID-19 SITUATION IN BIDI-BIDI REFUGEE SETTLEMENT

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A DISSERTATION SUBMITTED TO SCHOOL OF SOCIAL SCIENCES IN PARTIAL FULFILLMENT FOR AWARD OF THE DEGREE OF MASTER OF ARTS IN DEVELOPMENT MONITORING AND EVALUATION OF UGANDA CHRISTIAN UNIVERSITY

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UGANDA CHRISTIAN UNIVERSITY

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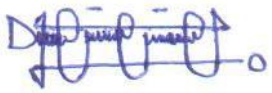
DECLARATION

I DAGA DENISH hereby declare this research work as an original document that has never been submitted for an award (master degree, bachelor degree nor a diploma) in any institution of learning. Thus, due acknowledgment has been made to other people's work incorporated in this work.

Therefore, it is submitted to Uganda Christian University to the school of post graduate, department of Development Studies.

Signature: 

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Date: 14th April, 2025

APPROVAL

This is to acknowledge that this dissertation titled “effectiveness of remote monitoring methods used during COVID-19: A case study of World Vision International in Bidi-Bidi refugee settlement in Yumbe district-Uganda” has been submitted for examination with my approval as supervisor.

Signature  25/4/2025

Associate Prof. Mary Ssonko Nabacwa.

Supervisor

DEDICATION

This study report is dedicated to the person who greatly supported me in the completion.

I therefore, dedicated it to my beloved wife Mrs. Akello Stella Grace for her great support and encouragement towards the success of this study document.

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I am pleased to convey my gratitude to different people who have greatly contributed to the success of this study report. My foremost gratitude goes to my supervisor Associate Prof. Mary Ssonko Nabacwa for the great mentorship and dedication towards the success of this research report, without her encouragement, intellectual support, and commitment, this thesis would not have been a reality.

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ABBREVIATIONS

BBOs	:	Back Born Organizations
COVID-19	:	Corona Virus 19
DFID	:	Department for International Development
GPS	:	Global Positioning System
GEMS	:	Geo-Enabling Initiative for monitoring and Supervision
IBM	:	Iterative Beneficiary Monitoring
ICT	:	Information, Communication and Technology
INGO	:	International Non-Governmental Organization
MEAL	:	Monitoring, Evaluation, Accountability and Learning
M & E	:	Monitoring and Evaluation
NGOs	:	Non-Governmental Organizations
NNGO	:	National Non-Governmental Organizations
OECD/DAE	:	Organization for Economic Co-operation and Development/ Development Assistance Committee
OPM	:	Office of the Prime Minister
RMMS	:	Remote Monitoring Methods
RWCs	:	Refugee Welfare Committees
SRMP	:	Somalia Remote Monitoring Program
SPSS	:	Statistical Package for Social Scientist

TPM	:	Third Party Monitoring
UN	:	United Nations
UNHCR	:	United Nations High Commission for Refugees
UNOCHA	:	United Nations Office for the Coordination of Humanitarian Affairs
WHO	:	World Health Organization
WVI	:	World Vision International

ABSTRACT

The COVID-19 pandemic significantly disrupted humanitarian operations worldwide, compelling agencies to adopt remote monitoring mechanisms to maintain project oversight amidst restricted field access. This study investigates the effectiveness of remote monitoring methods employed by World Vision International in Bidi-Bidi Refugee Settlement, Yumbe District, Uganda, one of the largest refugee settlements in Africa. The research was structured around three core objectives: (1) to identify the forms of remote monitoring methods used; (2) to assess the effectiveness of these methods during the pandemic and (3) to explore the challenges encountered in their implementation. Utilizing a mixed-methods design, the study integrated quantitative data from structured questionnaires with qualitative insights from key informant interviews involving staff, community monitors, and local leaders. Findings revealed that the predominant remote monitoring method were Information and Communication Technology (ICT) tools such as mobile phones, WhatsApp, Zoom, and email and the Integrated Community-Based Monitoring (ICBM) method, which leveraged local structures and leadership to facilitate data collection and reporting. These methods proved moderately effective in ensuring timely project monitoring, cost efficiency, and continuity in service delivery. However, several constraints limited their overall effectiveness. Key challenges included inadequate training on digital tools, high communication costs, inconsistent internet access, limited data verification capabilities, and security risks for community-based monitors. The study emphasizes the need for targeted policy interventions, government support for digital infrastructure, and capacity strengthening of local actors to enhance the robustness and inclusivity of remote monitoring in humanitarian settings. It contributes to the existing literature by contextualizing remote monitoring in crisis settings and offers recommendations to optimize its implementation during future emergencies.

Key terms: Remote monitoring, effectiveness, humanitarian sector, pandemic situation.

CHAPTER ONE

1.0. Introduction

Chapter one covered the background to the study, statement of the problem, purpose and objectives, research questions, scope of the study, justification, Significance of the study, conceptual frame work and definitions of operational terms and concepts.

1.1 Study background

The notion of remote monitoring method didn't start recently, it has been used by humanitarian organizations way back in the 1940s to access vulnerable populations in the America, Europe, Africa and the Asian continent affected by conflicts and health emergencies (Norman, 2012).

The boom in remote monitoring and management approaches recently took shape and became widely used by humanitarian organization around the globe due to increasingly worsening access to humanitarian population affected by conflicts, health and natural emergencies across many countries in Asia and Africa for case of Afghanistan, Iraq, Yemen, Somalia, the Sudan, Libya and others (Norman, 2012).

The rise in remote practices became rapidly used in crises situation in Asia like the 2013 Philippines typhoon disaster, 2023 Earthquake in Turkey, 2022 Ukraine war and the war in Gaza and Lebanon. Efficient ICT data collection method and ground positioning system (GPS) software supported visualization of emergency areas and response team supported by non-expert officials (JICA, 2024).

Remarkably, the emergence of the global COVID-19 pandemic in Wuhan, China in December 2019 increasingly became known as a pandemic on March 11, 2020 (World Health Organization, 2020) spreading almost all around the world, and based on its impacts, it is crucial to consider how humanitarian agencies adapted their programs in the course of the pandemic (UNOCHA, 2020).

The pandemic changed the global humanitarian and development landscape, evaluation function of many organizations that changed their monitoring and evaluation practices to suit the interest of stakeholders and donors (Dube, 2021).

The pandemic defied the status quo and the traditional practices of monitoring and evaluation implemented by humanitarian and development actors, as new procedures were introduced to contain the spread of COVID-19 (Buchanan Smith M, 2021).

In particular, restrictions on movement meant that monitoring and evaluation work had to transform from traditional approaches with more functions becoming performed virtually (Dube, 2021).

According to (UNHCH , 2020), by September 2019, there were 1.4 million refugees in Uganda, 92 percent lived in 13 settlement areas (west Nile, northern and western region), and 8 percent lived in urban (central region). (OPM, 2022) indicated that there were 277 humanitarian organizations implementing humanitarian programs in Uganda during the pandemic; with at least 89 being international agencies and 188 operated as indigenous NGOs.

1.2. Statement of the problem

The outbreak of the COVID-19 pandemic posed unprecedented challenges to the humanitarian and development sectors, particularly in the area of monitoring and evaluation (M&E), Movement restrictions and physical distancing measures disrupted traditional field-based data collection, forcing organizations to rethink how they track project implementation and assess impact (Buchanan Smith M, 2021).

In response, many humanitarian agencies adopted remote monitoring methods, using digital tools and localized methods to ensure continued accountability and learning while minimizing physical contact (Tatua, 2021). These methods such ICT through mobile phone surveys, online platforms, and community-based monitoring method through use of organized community structures were praised for their adaptability and

cost-effectiveness during the pandemic. (Dube, 2021), (Women Refugee Commission and War Child Holland, 2020).

However, while existing studies acknowledge the shift to remote monitoring and its perceived advantages, they often fall short of critically evaluating the actual effectiveness of these methods in achieving project objectives. In particular, there is limited empirical evidence on how remote monitoring has functioned in refugee contexts in Uganda, despite its large humanitarian presence. Most of the literature centers on Asia, Europe, and a few African regions (Norman, 2012), creating a gap in localized understanding.

This study therefore seeks to fill this gap by empirically examining the forms, effectiveness, and challenges of remote monitoring methods used by World Vision International during the COVID-19 pandemic in Bidi-Bidi Refugee Settlement, Uganda. It aims to contribute evidence-based insights that can inform future M&E practices in crisis-affected settings.

1.3 Objectives of the study

1.3.1 General objective

To examine the effectiveness of remote monitoring methods used during the COVID-19 pandemic by World Vision International in Bidi-bidi refugee settlement in Yumbe district, west Nile region of Uganda.

1.3.2 Specific objectives

1. To ascertain the forms of remote monitoring methods used by World Vision International during the COVID-19 situation in Bidi-bidi settlement.

2. To examine the effectiveness of forms of remote monitoring methods used by World Vision International during the COVID-19 situation in Bidi-bidi refugee settlement.

3. To explore the challenges faced by World Vision International when practicing remote monitoring methods during the COVID-19 situation in Bidi-bidi settlement.

1.4 Research questions

1. Which forms of remote monitoring did World Vision International implement in response to the COVID-19 pandemic in Bidi-Bidi settlement?
2. How effective were the remote monitoring methods implemented by World Vision International during the COVID-19 period in Bidi-Bidi refugee settlement?
3. What challenges did World Vision International faced in using remote forms/types of monitoring methods during the COVID-19 in Bidi-bidi settlement?

1.5 The Scope of the study

This section consisted of three scopes of the study namely: The content, time and geographical scope as seen below.

1.5.1 Geographical scope

The study area of interest was Bidi-bidi refugee settlement located in Yumbe district in west Nile region. This settlement was the largest in Uganda covering a total area of 234.097 Km^2 and with a population size of 272206 people in 101570 households, it was divided in to five (5) zones distributed in six (6) sub-counties of Yumbe district namely, Avwa, Obravu, Kululu, Romogi, Ariwa and Kochi sub-county. The settlement is bordered by South Sudan to the north, Moyo to the east, Arua to the south, Obongi to the south west and Koboko district to the north east (UNHCR, 2022).

1.5.2 Content scope

The study focused on examining the effectiveness of remote monitoring methods used during the COVID-19 situation by World Vision International in Bidibidi settlement in Yumbe district, west Nile region.

In this study, remote method was the independent variable which constitutes the forms of remote monitoring such as integrated community-based method, information, communication and technology and third-party monitoring methods that affects the

dependent variable “Effectiveness” on measurable indicators of usability/ applicability, Efficiency (time, and monetary cost), and sustainability (ability to replicate the usages of the tools). The researcher was interested in examining how effective the remote monitoring methods used were.

1.5.3 The time scope

The study space started from 2019 when remote monitoring methods were increasingly used globally. The period aligned well with the global COVID-19 pandemic, namely in Europe, America, Asia and Africa respectively (World Health Organization, 2020). This scope provided most recent information on remote monitoring methods thus, it was ideal for examining its effectiveness.

1.6 Justification of the study

(OPM, 2022) report indicated that 87 humanitarian organizations were implementing programs in the sectors of education, nutrition, health, protection, food security and livelihood, energy and environment benefiting population size of 197378 people in 41,990 households in Bidibidi refugee settlement.

More so, World Vision International was the lead partner in specific area of study zone three (3) located in Kululu sub-county (OPM, 2022). (Dube, 2021) concluded that remote monitoring methods used in the age of COVID-19 were more effective on projects but was this notion valid for World Vision International that used remote monitoring methods during the COVID-19?

Therefore, it was upon this hypothesis, the study sough examined the effectiveness of remote monitoring methods used World Vision International in Bidi-bidi refugee settlement during the COVID-19 period.

1.7 Significance

The lack of rigor on measure of effectiveness of remote monitoring methods whilst with information gap on local scope as stated on problem statement, through application of

empirical methods will generate metrics to evaluate the effectiveness of policies and programs thus, confirming accountability and transparency.

The study findings will also promote innovation in practice of new technologies, tools, strategies, and methods integrated to enhance better remote monitoring practices in both research, policy and other fields by humanitarian agencies, government and the communities.

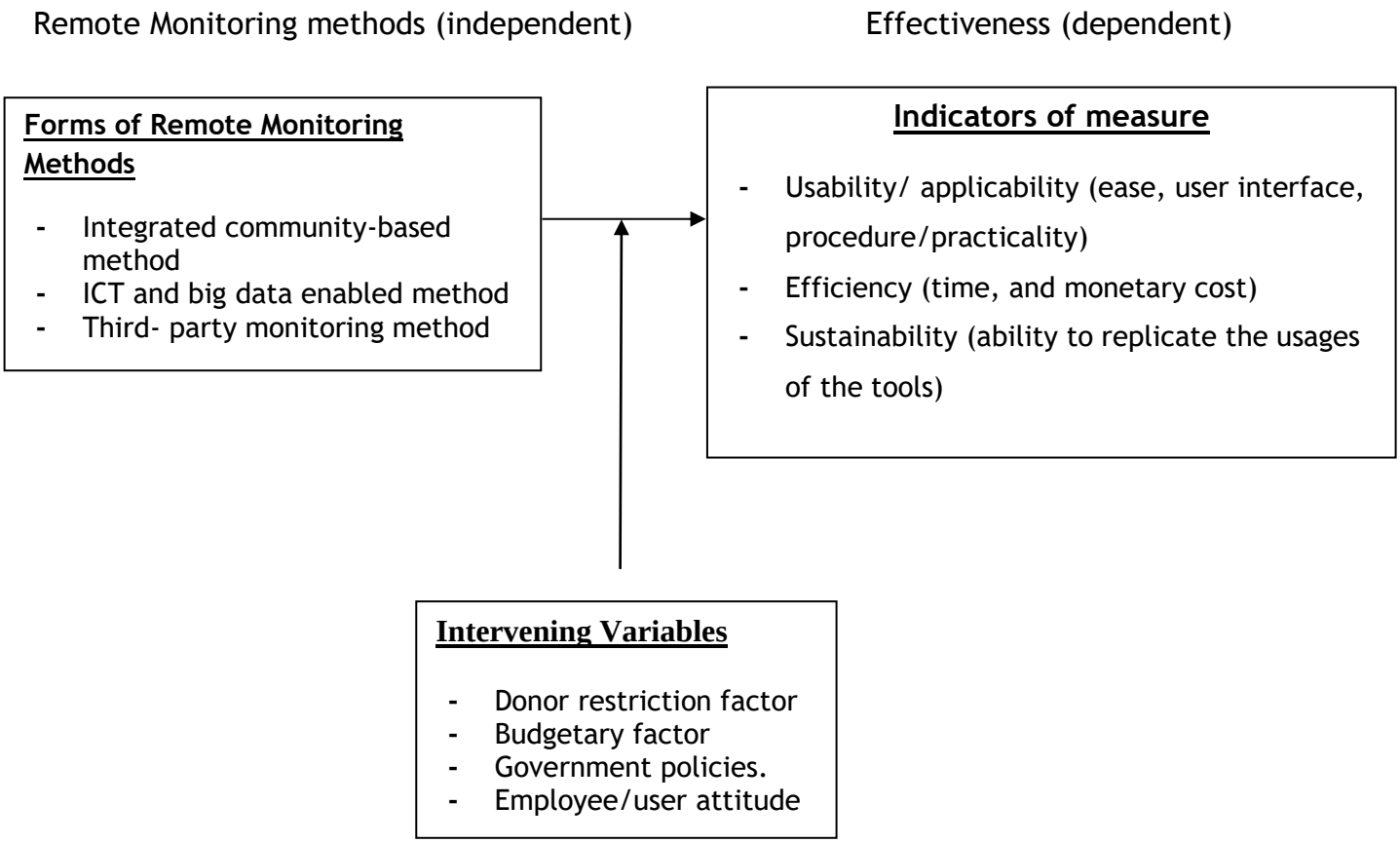
The study will also be of greater significance to the global sustainable development goals (SDGs) more particularly to SDGs 1,2,3 and 4 as it showcases the impact of crises (COVID-19, among others) on vulnerable population thus, allowing development actors to provide timely assistance vital for poverty, hunger alleviation, and access to healthcare services and quality education in the context of recovery and resilience building.

This study will contribute to the body of the existing knowledge on the effectiveness of remote monitoring methods during the COVID-19 period reason being, information might be needed for literature review in the future by other scholars.

This research will help humanitarian agencies, government and other development actors in decision making on adaptation of remote monitoring methods during emergencies in the future. Furthermore, it will also provide information to program managers, evaluators, donors and stakeholders on remote monitoring methods and its usefulness on projects during emergency in the future.

1.8 Conceptual framework

The illustration below showed the summary of the inter-relationship between the (dependent variable) effectiveness and remote monitoring methods (independent variables) of the study. It also pointed out how the intervening variables affects the independent and dependent variable in the study.



From the illustration above, remote monitoring methods was an independent variable and effectiveness as the dependent variable. Remote monitoring methods application was therefore measured by standards criteria to determine effectiveness or how useful the remote tools/ methods were.

Thus, specific parameters such as applicability measure how easy the tools were to the users, user interface, procedure/practicality involved to achieve results, efficiency in terms of time and monetary costs and finally the criteria of sustainability in terms of the ability to sustain or replicate the usages of the tools in future by the organization.

These parameters showed case on how effective a particular forms of remote monitoring techniques were applied in an organization. Nevertheless, external factors for instance, donor restrictions on the use of the remote system of monitoring, Staff attitude influence acceptance, budgetary factors such as limited funds to support the adoption of specific remote monitoring methods, government policies on use of remote

devices like landline and Thuraya phones directly affects the applicability and realization of effectiveness of remote monitoring methods.

1.9 Definitions of key terms & Operational concepts

The main key terms in this study were: Remote monitoring methods, effectiveness, humanitarian sector and pandemic situation as defined below.

The term remote monitoring denotes an approach or techniques of guaranteeing project's continuity from far location from the project through use of technologies and local human resource in the implementation and monitoring processes.

While the term effectiveness denotes a measure of progress, results and standards on achieved activity objectives from the planned and implemented activities of an organization.

According to (OCHA, 2022) and (Association, 2018), humanitarian sector refers to the global system of organizations and actors that provide life-saving assistance and protection to people affected by crises, such as conflicts, natural disasters, forced displacement, and other emergencies. This sector includes United Nations agencies, non-governmental organizations (NGOs), Red Cross and Red Crescent societies, civil society groups, and governmental aid agencies.

A pandemic situation refers to the global outbreak of a disease that spreads across countries and continents, affecting a large number of people. It is more severe than an epidemic, which is typically localized to a region.

However, The World Health Organization (WHO, 2020) defines a pandemic as the "worldwide spread of a new disease" for which most people do not have immunity, often resulting in widespread illness and societal disruption.

Literature showed diverse options linked to the concept of remote monitoring, and effectiveness. However, there was an interconnection in scholarly arguments as seen and discussed below.

The concept of remote monitoring methods was understood as a techniques of tracking project progress from distance location away from project area of implementation; the technique ensures active and practical involvement of locals/stakeholders in activity monitoring process, implementation and decision making (Women Refugee Commission and War Child Holland, 2020). On a similar note, (Herbert, 2013) described the concept as tracking of project activities from a distance by means of ICT methods and use of local staff or partners thus, symbolizes remote monitoring.

Effectiveness however, has similarities as described by scholars with a common notion linked to a measure of output, outcomes and quality for instance, a measure of how well or complete a project task will be carried out, it symbolizes the ability of a project to meet its objectives and quality to satisfy the needs (Bista, 2006).

Similar to Bharat, (OECD, 2021) linked the concept of effectiveness to an aggregated measure of merits and worth of any activity, judging the extent to which its goal and objectives has been achieved. This assertion is closely interconnected to (Wysocki, 2019) opinion who referred effectiveness to improvement in managing project with the goal to improve delivery on time and budget.

However, in the Oxford learner's dictionary, effectiveness was described as producing the results that is wanted or intended.

Perfectly, there was a clear link or relationship between the key concepts in the study due to the commonality, effectiveness aspect was linked to indicator of the degree of a goal achievement whilst as a measure of output, outcomes and quality.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focused on discussing the literature linked to the study fore-mentioned research. Moreover, the sub-themes presented in the literature review were related to the specific objectives of the study as presented below.

2.1. Forms of remote monitoring methods

In this study, remote monitoring forms denotes the different types of techniques used to monitor projects remotely by humanitarian organizations in emergency context. Existing literature have identified and discussed various forms of remote monitoring methods, those regarded key were; information and communication technology (ICT) technique, integrated community-based technique, and third-party monitoring technique as discussed below.

2.1.1 ICT remote technique

Information and communication technology method refers to a technique of monitoring project progress by means of digital systems such as internet, wireless, networks, eletronic devices such as cell phones, computers, softwares, social networks, and transmiters among others to gather, analyse and disseminate project data from insecure situations. Project outcomes are certain, time saved, and data loss minimized when data was digitally managed through electronic data bases, mobile phone-based feedback and remote sensing with satellites (Corlazzoli, 2014).

In support to Corlazzoli's assertions, (Dette.R, 2016) asserted that ICT method was adoptable because it requires less advance computing skills to operate ICT remote devices like mobile phones, data entry with tablets and other online communication platforms.

Even if, Dette and his colleagues reasoned that the uses of ICT technologies devices require less knowledge and are easy use, their study undermined the aspects of technological advancement of software, and ICT gadgets verses capacity building for effective usage of the method. Thus, this study intends to address this noted gap by examining the effectiveness of ICT technique to draw a strong conclusion in supporting the method.

Another unique finding on clinical evaluation (Burri, 2014) concluded that patients' outcomes improved through remote monitoring aid because patient's data and results are regularly analyzed without physical presence hence, time waste is reduced on clinical decisions. Nevertheless, Burri statement is abstract as it did not specify the monitoring aid applied and how effective the tools were. The study therefore, sought to explore the forms/ types of remote monitoring techniques whilst the tools used by the organization during the COVID-19 situation in Bidi-Bidi settlement in order to address the missing link in Burri's study.

(Diepeveen, S, Bryant,J, 2022) highlighted the strengthen and some weakness of ICT method he argued that ICT tools can streamline data collection processes, reducing the need for physical presence and associated costs. Furthermore, Technologies like mobile surveys and online platforms facilitate timely data reporting, enabling swift decision-making. Nevertheless, Limited access to technology in certain regions can hinder the inclusivity of ICT-based monitoring. Moreso, the collection and storage of digital data raise issues regarding beneficiary confidentiality and data security.

2.1.2 Integrated community-based method

This was a remote monitoring technique where project implementers resorted to use of already existing community development structures, and resources in monitoring and evaluation in fragile situation like the COVID-19, Ebola, conflicts and other associated insecure situations like climate impacts like floods, eruptions and others in insecure situation. Involvement of embedded staff and local leaders/stakeholders enhances monitoring of projects for humanitarian actors operating in distance mode with less direct support. The technique embraces principles of local participation and

engagement hence guaranteeing sustainability (Women Refugee Commission and War Child Holland, 2020).

Despite the assertion on local's empowerment as stated by (Women Refugee Commission and War Child Holland, 2020), their deduction holds gaps in clarifying how and to what degree integrated community-based method promote effective involvement. Moreover, the concept of gender and equity is doubtful hence justifying the need to conduct this study.

In addition, (Simran C, 2019) asserted that integrated community-based method embraces remote partnership through agreements with local community leaders or embedded staff entrusted with project. This act contributes to building mutual relationship, trust and effective project outcomes.

In contrast with Simran statement, (Norman, 2012) pointed out that a potential deterioration in performance when direct supervision is limited by senior management, limited technical oversight, irregular external monitoring, limited capacity of personnel, social and political pressures on local personnel, as well as other factors.

In agreement with Norman's point of review, there is no doubt when appropriate strategies aren't clearly stated in the integrated community-based remote monitoring and partnership policy, as well as capacity building processes of the local actors, there is likelihood that, the method maybe less effective.

(Women Refugee Commission and War Child Holland, 2020) and (Norman, 2012) emphasized the strengthen and some weakness of ICBM, they argued that the method empowers community members, leading to increased accountability and relevance of interventions. Additionally, the method Utilizes local understanding to interpret data within the appropriate cultural context hance enhances cultural sensitivity. However, they further pointed that divergent levels of skills and resources among community members may also affect the quality of data collected. Moreso, Local power dynamics may also influence the objectivity of monitoring outcomes thus, causing potential Biases.

2.1.3 Third- party monitoring technique

TPM method often refers to technique of ensuring a continuous monitoring, gathering, analyzing and reporting of project data through use of external individual or consultancy firms. In this method, external consultants are hired to monitoring, gathering, and analyzing project data on behalf of the hiring organization particularly in situations of limited/risk access, though it can also be applied in a normal context.

(Harrison, 2020), asserted that apart from improving on Programme design, and optimizing performance, third-party monitoring technique equally empowers local consultancy organizations or hired individual consultants with autonomy over data collected.

In disagreement with Harrison's statement, there is a certain degree of doubt existing about third-party monitoring technique, he didn't explore in his study, the concept of cost/ affordability as well as the risk of disempowering of project managers when the entire work is carried out by hired consultants. As such, this study intends to address these notable gaps by examining the effectiveness of this method in order to draw a comprehensive conclusion.

However, (Steets, 2016) claimed that third-party monitoring method is highly effective with information flow to meet the community, donor and implementing organization's requirement because of its frequently data collection and reporting system on ground hence guaranteeing accountability.

Perhaps, another exceptional view exists in (Harrison, 2020) who reasoned out that the use TPM may affect future funding opportunities of the implementer due to the validity of data collected compared to when managed by the implementing organization. The level of understanding and interpretation of findings may differ from TPM and the implementers.

In agreement with Harrison's assertion, in an ideal world, third party monitoring mainly gather output data on beneficiaries reached, and quantities distributed among others

but it may not have the capability to measure project outcomes or impact on the beneficiaries of a particular project.

Nevertheless, Harrison, Segmeister & Streets further did not bring out in their discussion the cost associated with hiring consultants, TPM may become very expensive to finance and monitoring project remotely as operation cost associated to hire of consultants may become costly. As such, this study intends to address these notable gaps by examining the effectiveness this method in order draw a comprehensive conclusion.

2.2 Effectiveness of forms of remote monitoring methods

Remote monitoring methods gained prominence during the COVID-19 pandemic, with claims of enhanced cost-effectiveness, timeliness, and adaptability in restricted-access environments. However, understanding their effectiveness requires empirical evaluation within humanitarian and emergency contexts.

Iterative Beneficiary Monitoring (IBM) has been described by (Hogeveen, 2020) as a simple, low-cost technique that rapidly collects beneficiary feedback, enabling timely responses to emerging challenges. Empirical evidence from the International Rescue Committee's application of IBM in conflict-affected regions of Somalia and South Sudan showed improved responsiveness to community concerns and quicker adjustments in programming (IRC, 2020). However, effectiveness varied based on the technological literacy and trust levels within target communities, indicating that context matters significantly.

Similarly, ICT-based monitoring methods are praised for their resource efficiency. The (World Bank, 2019) documents the success of mobile-based data collection during the Ebola crisis in West Africa, which led to quicker data transmission, lower operational costs, and better health surveillance outcomes.

(Corlazzoli, 2014) supported these findings, showing that ICT methods enabled near real-time monitoring and minimized data entry errors. However, (Chaudhri, 2019) raises concerns about the interpretability and depth of data collected through these tools, suggesting that ICT cannot fully substitute traditional qualitative assessments. The

evidence indicates that while ICT improves operational efficiency, its effectiveness in capturing complex socio-behavioral dynamics remains constrained.

In the case of Third-Party Monitoring (TPM), (Steets, 2016) provides empirical findings from Afghanistan and Syria, where TPMs were employed due to insecurity. The studies demonstrated improved data reliability and reduced fraud, especially when TPMs complemented internal systems rather than fully replacing them. Nonetheless, issues of cost, data ownership, and disconnect between field realities and donor expectations were noted. (Harrison, 2020) corroborates these findings, observing that TPMs often provided detailed outputs but struggled to capture outcomes and contextual nuance due to their external nature.

Finally, Integrated Community-Based Monitoring (ICBM) methods have shown promise in fostering ownership and sustainability. (Women Refugee Commission and War Child Holland, 2020) documented positive outcomes in gender-based violence (GBV) programming during the COVID-19 pandemic through community-led monitoring. Similarly, (SCI, 2021) reported success with community focal points collecting feedback in Yemen, enhancing accountability despite access constraints. However, (Norman, 2012) warns of potential capacity limitations and supervision gaps that can undermine the quality of community-based monitoring when not well-supported.

In summary, while all remote monitoring methods show some level of effectiveness, empirical findings suggest that their success is highly contingent on context-specific factors, such as technological access, trust, staff capacity, and local engagement. This study builds on these empirical insights to evaluate how remote monitoring methods were employed by World Vision International in Bidi-Bidi settlement during COVID-19, and whether they achieved their intended effectiveness.

2.3. Challenges of remote monitoring methods

(World Bank, 2019) asserted that despite the many benefits linked to the use of iterative beneficiary monitoring technique, it is risk related especially with obtaining project beneficiaries lists and their contact information hence, a slow response process in

solving issues identified during the monitoring which undermines the implementation and success of the technique.

Perhaps, a more ideal risk of third-party monitoring lies in (Norman, 2012) who reasoned that though, third-party monitoring method is a better alternative option for remote monitoring in emergency context, the degree of beneficiary participation or representative is limited as it often neglects underprivileged groups from participating. Norman further suggested inclusive or participatory monitoring method, and increased key informants base would address issues of participation during project monitoring.

(Dube, 2021) explained the impossibility to ensure deep probing through remote monitoring method of using mobile phone and other related tele devices. He further argued that qualitative data generated through virtual means weights lesser strength compared to data generated through face to face, because observation is limited hence reading beneficiaries feelings is impossible. More still, there is the problem of access to gadgets that can be used online and the issue of internet connectivity for beneficiaries in rural areas.

ICT application often associated with many constraints in insecure context, first, the tendencies of selection bias is likely to occur hence undermining inclusive participation of all stakeholder groups during data collection and secondly, issues of safety and security of individual or local community assigned the task of collecting information or M&E at ground may not be possible (Corlazzoli, 2014).

Nevertheless, the privacy and security of big data collected from a variety of sources online may not be guaranteed, some of which are vulnerable to manipulation, security violations, and proprietary restrictions (Corlazzoli, 2014).

Perhaps one of the biggest issues associated with the use of third-party monitoring in remote context is the potential disconnection between donors and the ground realities, this can lead to data that is devoid of context, and not helpful in enhancing understanding the real issues on ground. Furthermore, the issue of trust may reduce between the partners and outsource risk.

2.4 Literature review summary

The literature review explored the concept, application, and implications of remote monitoring methods within humanitarian settings, particularly during the COVID-19 pandemic. It examined three core themes aligned with the study objectives: Forms of remote monitoring, their effectiveness, and the challenges associated with their use.

First, the review identified key forms of remote monitoring methods namely Information and Communication Technology (ICT) based methods, Integrated Community-Based Monitoring (ICBM), and Third-Party Monitoring (TPM). It highlighted that humanitarian agencies adopted these tools to maintain program oversight amidst movement restrictions as revealed in Corlazzoli, 2014; War Child Holland, 2020 who emphasized the adaptability and flexibility of ICT tools, while community-based approaches were noted for ensuring local engagement and sustainability.

Second, the literature addressed the effectiveness of remote monitoring, commonly measured by its efficiency, usability, cost-effectiveness, and ability to deliver timely and reliable data. Scholars like Dette et al (2016) and the World Bank (2019) found remote methods to be cost- and time-saving, although with limitations in data depth and quality assurance.

Lastly, the review discussed challenges, including limited digital literacy, infrastructure gaps, security risks for local monitors, data reliability concerns, and inequitable participation especially for marginalized groups. Researchers such as Dube (2021) and Norman (2012) pointed to the need for more inclusive, mixed-method approaches to overcome these barriers.

Overall, the literature affirms the relevance of remote monitoring in crisis contexts but also underscores significant implementation gaps, especially in localized humanitarian settings like Bidibidi refugee settlement. This study builds on these insights by offering context-specific evidence from Uganda to inform future programming and policy design.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter consists of the research design of the study, area of study, sources of information, study population, sample size and sample procedure, study variables, data collection methods and instruments, data quality control, validity, reliability, credibility data processing and analysis, ethical consideration, anticipated limitations of the study.

3.1 Research design

This study employed a cross-sectional research design, which involves collecting data from a sample at a single point in time. This design is particularly suitable for assessing the effectiveness of remote monitoring methods used during the COVID-19 pandemic without the need for repeated interactions with respondents. It allows for the investigation of multiple variables simultaneously, providing a snapshot of the phenomena under study (Creswell, John Creswell & David, 2013).

The Research Approach and Paradigm was guided by a pragmatic research paradigm, this study emphasizes practical solutions to research problems and supports the use of multiple methods to gain a comprehensive understanding of the research questions. Pragmatism focuses on the research problem itself and uses all available approaches to understand it, rather than adhering to a particular methodological tradition (Morgan, 2017).

The methodological choice was an embedded mixed methods approach utilized, where both quantitative and qualitative data were collected and analyzed concurrently. This approach was chosen to provide both breadth and depth to the analysis, enabling the researcher to quantify patterns while also exploring underlying explanations and perspectives. The integration of methods was particularly important for understanding the nuanced effectiveness of remote monitoring tools in humanitarian programming

during emergencies. Additionally, the choice was influenced by constraints of time and resources, necessitating simultaneous rather than sequential data collection

3.2 Area of study

The specific area of focus for this study was Zone 3 within Kululu Sub- County, one of the five designated zones in Bidi-Bidi Refugee Settlement, Yumbe District, Uganda. Zone 3 was purposively selected for two key reasons:

First, it hosts the largest refugee population in the settlement approximately 197,378 people in 41,990 households, primarily composed of South Sudanese and Congolese nationals (OPM, 2022) and (Theresa, 2019).

Second, during the COVID-19 pandemic, World Vision International was actively implementing various humanitarian programs within this zone. This made Zone 3 an ideal site for examining the effectiveness of remote monitoring methods applied by the organization during the health crisis (OPM, 2022).

3.3 Sources of information

Both primary and secondary sources were used in the study to ensure that rich information was collected and triangulated for good conclusion. Most information used was from primary sources such as interviews, primary sources provided relevant information needed by the researcher. Furthermore, secondary sources were also used such as textbooks and reports among others.

3.4 Study population

The relevant population for this study consisted of individuals and actors directly involved in the planning, implementation, and oversight of remote monitoring methods during the COVID-19 pandemic in Zone 3 of Bidi-Bidi Refugee Settlement, Uganda. This included:

- Monitoring and Evaluation (M&E) staff of World Vision International (WVI), the primary implementing organization under investigation.

- Programme officers and field staff from WVI who were involved in data collection, reporting, or decision-making using remote methods.
- Key local stakeholders such as community focal points, volunteers, and local leaders, including district sector heads, who participated in or supported remote monitoring efforts during the lockdown period.

This population was considered relevant because they possessed first-hand experience and operational knowledge of the use and effectiveness of remote monitoring techniques for instance, ICT tools and community-based methods during the constraints imposed by the pandemic.

According to (OPM, 2022), a total of 87 humanitarian organizations operated in Bidi-Bidi Settlement with 2,110 staff involved across sectors such as education, nutrition, health, protection, and livelihoods. Zone 3, located in Kululu Sub- County, was selected as the specific study site due to its high population density (197,378 people in 41,990 households) and the presence of 54 WVI staff actively engaged in project implementation during the COVID-19 lockdown.

By focusing on this well-defined and purposefully selected population, the study aimed to ensure the collection of accurate, relevant, and experience-based data on the effectiveness, challenges, and perceived outcomes of remote monitoring methods.

3.5 Sample size and sampling procedure

A sample size of 64 respondents was determined from a total population of individuals through census where all members of the population are selected in the study. The method was ideal because the size of the population was small. In addition, there was no sampling errors that occurred since every member in the population was selected.

Table1: Showing sample size and sampling procedure of the staff population.

S/N	Category of Respondents	Number of Respondents	Sampling Technique	Justification
1	Technical staff (Management team)	05	Purposive sampling	The researcher focuses on those with specific knowledge or experience relevant to the study
2	Program staff (field team)	40	Census sampling	Sampling errors are reduced because of the small size.
3	Volunteer Team (Enumerators)	10	Census sampling	All individuals are included thus, enhances more accurate and reliable data collection
4	Community block leaders	05	Purposive sampling	Focus on participants who are relevant to the study.
5	District Officials (Heads of Department)	05	Purposive sampling	Refer to above comments

3.6 Sample selection

Since census was used to determine the size of its respondents, the researcher used readily established list of staff (staff registers) from the organization to guarantee participation. Furthermore, the researcher acquired list of field volunteers who were involved in monitoring process in the organization during the COVID-19 period.

The government officials such as district heads of department were selected through non-random by means of purposive-heterogeneity sampling. The researcher was interested in respondents who he thinks were willing and can provide the best information to achieve the study objectives.

3.7 Study variables

In this study, remote monitoring methods was the independent variable and effectiveness was the dependent variable. The first variable (remote monitoring) was very important because it determines the amount of information to collected in field and how it affects the dependent variable (effectiveness).

3.8 Procedure/protocols for data collection

Once the proposal was endorsed, it followed with request for an official introduction letter from the school of research and post graduate studies of Uganda Christian university which was presented to various offices in the area of study for instance, the settlement commander, World Vision International field coordinator, and zone block/cluster leaders and highlighting the purpose and the need for their co-operation. The researcher hired one local person as research assistant, who helped in navigation in settlement during data collection process in the area of study.

3.9 Data collection instruments

The data collection instruments were basically two namely: Key informant interview and questionnaire.

3.9.1 Key informant interview guide

Key informant interview guide was administered by researcher to the respondents in World Vision International and local government heads of department, through a face-to-face interview method and this was done by formulating predetermined set of questions containing open-ended questions to encourage flexibility in sharing thoughts

as well as specific questions developed to elicit detailed information linked to the study.

The researcher used this method because it was comprehensive and systematic because questions were formulated prior to the interview. Moreover, face-face interview was prepared to facilitate a direct interaction with the respondents that was, asking questions and getting responses in return thus, enhances flexibility and relationship building through the rapport.

The researcher believed, by adopting the method, helped gain the ground for a favorable interactive environment with respondents thus enabled deeper probing and minimizing response errors that would likely occur if tools were administered virtually.

3.9.2 Research questionnaire

The study employed this tool through use of structured interviews that is to say, predetermined list of opened and closed ended questions and this helped the researcher to remain focused or in line with the topic without deviating out from the research topic. Moreover, standardization is factored in as all respondents receives the same question to ensure consistency.

The tool was administered to the respondents in world vision international mainly Programme staff and volunteers at community level. The tool was regarded appropriate because of its cost and time effectiveness.

Furthermore, Bidi-bidi refugee settlement, particularly zone three (3) had average literacy levels of 8 percent of refugee youths who have attained secondary level of education (Uganda Bureau of Statistics (UBoS), 2019/2020).

3.10 Data quality control

Data safeguarding for the purpose of maintaining accuracy and completeness depended on the validity and reliability of the instrument used for quantitative data while credibility for qualitative data.

3.10.1 Validity

Validity refers to the extent to which an instrument of data collection measures what it was designed to measure (Creswell, John Creswell & David, 2013). Content validity refers to how well an instrument includes a representative sample of questions that relate to the domain being measured (Patton, 1990).

To ensure content validity of the study instruments, the researcher conducted an extensive literature review of independent and dependent variables and other literature to develop appropriate instrument content. (Creswell, John Creswell & David, 2013)

In addition, my supervisor and the ethical research committee of Uganda Christian university critiqued the content of the formulated questionnaire to determine whether the instruments had clear and appropriate content as considered necessary to measure the study objectives.

The experts were asked to identify any area of study that were not well represented in the research instrument and proposed possible questions and instructions and once completed, revisions were done and the final instruments were developed.

3.10.2. Reliability

Reliability is the extent to which results of a study are consistent over time and there is an accurate representation of the total population under study (Golafshani, 2003). Reliability analysis aims at finding out the extent to which a measurement procedure will produce the same result if the process is repeated over and over again under the same conditions.

3.10.3. Credibility

(Guba, 1985) termed credibility in qualitative research as the concept of internal consistency in research process and communication with people. In order to ensure quality control in the qualitative data gathered, the study observed trustworthiness by

ensuring prolonged engagement with people, continued observation, participant checks and validation. Moreover, the researcher ensured thorough description of sources of data and a fit between the data and the emerging analysis in addition to the thick descriptions.

3.13 Strategy for data processing and analysis

Data analysis was involved identifying differences and relationships between data obtained through key informant interviews and questionnaires.

The quantitative data processing followed three procedures which include; data editing, coding into a computer micro soft excels IBM SPSS (Version 27) for analysis, the program helped the researcher to generate summary statistics such as frequency tables, means, standard deviations, and graphs.

At univariate level, data analysis was based on relative frequencies (percentages) and at bivariate level, analysis of qualitative data was done in descriptive manner respondent's quotes or in descriptive statements and present it in form of texts and citations. Descriptive statements enable the researcher to provide a more illustrative explanation of the respondents' comments.

3.14 Ethical consideration

(Creswell, 2018) observe that, during the process of planning and designing a study, researchers need to consider what ethical issues that might surface during the study and to plan how these issues need to be addressed.

Therefore, based on Creswell's opinion, the researcher observed three (3) ethical principle during the study namely: The principle of informed consent, which states that participants should be fully aware on the nature, purpose and risks associated with the study, should willingly agree to participate without being forced. This principle was applied through briefing and well introduction of the study, methodology, tools and the purpose to all the selected participants during the study.

Moreover, the principle of respect for persons which emphasizes that the researcher should respect the dignity and autonomy of participants, recognizing their rights to make decisions regarding their participation. This researcher showed respect to respondents who declined to answer certain questions and accepts to adopt to their convenient time of participate in the study.

Finally, the principle of confidentiality emphasizes that the researcher must protect the privacy of participants by maintaining their identity and information collected secret. The researcher advised participants not to use their correct names as they engage with data collection instrument. More so, during data analysis process, coding assignment table was used to generate participants codes, through the coding system and data management procedures, the researcher ensured the confidentiality of participants.

3.15 Encountered limitations in the study

The researcher encountered 2 (two) primary challenges namely: slow and bureaucratic procedures on data collection process at field level for instance, the researcher took 4 (four) days before granted clearance at the office of the prime minister (OPM), this resulted to time loss which further resulted to extra cost on transportation from area of residence to the OPM office.

More so, the researcher also faced challenges on the side of respondents (staff) who became very unreliable to attend or fill the research questionnaires thus, it affected the planned schedule leading to extra cost in the field.

However, the researcher solved these challenges by patience and consistence in follow up of approval process and collection of completed questionnaires from the respondents. Furthermore, the researcher politely discussed and requested rescheduling of interviews date for key informants and collection of completed questionnaires.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF RESULTS

4.0 Introduction

This chapter consists of presentation and interpretation of the results consistent with the research objectives found in charter one. It's composed of demographic characteristics of the respondents 4.1, forms/types of remote monitoring methods presented in section 4.2, effectiveness of remote monitoring method/techniques presented in section 4.3, whereas, the challenges encountered in the application of the remote techniques are presented in section 4.4 as seen below.

Also, the quantitative data was backed up by the qualitative data analysis generated from the key informant interview guide to provide an in-depth understanding of the findings.

4.1 Demographic characteristics of the respondents

This section composed of variables which include duration in the project (years), sex, the education level of the respondents, and duration in humanitarian sector. It also presented the data in frequency and percentages form for easy interpretation.

4.1.1 Distribution category by duration in the project/organization (years)

The findings revealed that 39% of the respondents had spent 3 (three) years in a project more so, in a face-to-face interview with P002 (respondent) on the 26/01/2024, stated that "many staff joint World Vision International (WVI) during the COVID-19 due to various protection projects that emerged such as gender-based violence, child protection and counselling and psycho-social support targeting the refugee population in Bidi-Bidi settlement".

Furthermore, the study also established that, out of 39% employees who spent 3 years in the organization, 67% were female staff constituting the highest ratio compared to the male 33%.

In support to the finding, qualitative information from P001 (respondent) during face-to-face interview on 22/1/2024 said that “the organization implementation strategy for social protection projects such as child protection, gender based-violence, psychosocial support and counselling had a female-lead agenda designed to promote women participation in social development”.

The study revealed that 29% had spent 4 (four) years, data showed that 82% were male staff and 8% female. Results also exposed that 15% of the respondents had spent 5 (five) years in the project with 75% representing males and 15% females.

7% had spent 2 (two) years, data showed that 80% majority were females and 20% were males and 4% spent one (1) year representing 100% females. Whereas, 2% of spent 6 (six) to 7 (seven) years in the project/organization, data showed 100% were males and 0% females. The study also discovered that this category of respondents was those in senior management positions.

Table 2: Showing distribution category (years) by duration in the project / organization

Duration (years) in the project/ organization	No. of respondents/ frequency	Male	Female	Percentage %
1 year	2	0	2	4%
2 years	5	1	4	9%
3 years	21	7	14	39%
4 years	16	13	3	29%

5 years	8	6	2	15%
6 years	1	1	0	2%
7 years	1	1	0	2%
Total	**54**	**29**	**25**	**100%**

Source: Primary Data

4.1.2 Distribution category by sex of the respondents.

Findings revealed that 54% of staff in World Vision International retained during the COVID-19 period were male while, 46% were female staff. Thus, this results further confirmed that females were most affected by downscaling factor in World vision during the COVID-19 period.

Besides, in a face-to-face interview with P005 (respondent) on the 23/01/2024, said "the retention procedures employed by the World Vision International (WVI) during COVID-19 were primarily based on technical and working experience basis of the employees". This statement therefore, clearly suggests that the male dominance in World Vision International during the COVID-19 period was attributed to expertise and experience level of staff.

Table 3: Showing distribution category by sex.

Sex	No. of Respondents	Percentage %
Female	25	46
Male	29	54

Total	54	100

Source: Primary Data

4.1.3 Distribution category by age of the respondents

The study revealed out that 61% of the respondents were between the age bracket of 29-38 years with data showing that 55% were males and 45% females. This finding therefore implies that workers between the age of 29-38 years were dominant in World Vision International. This was because this age bracket consisted of staff at youthful age and majority have skills and required qualification.

The findings further revealed out that 20% of the respondents were between the age bracket of 19-28 with data indicating that 55% representing female and 45% representing males. The findings also revealed that respondents between the age this bracket of (19-28) took the second domination at World Vision International because this age bracket consisted of incentive volunteers, and support staff who have minimum skills and qualification. More so, qualitative information generated from face-to-face interview with P003 (respondent) on the 26/01/2024 confirmed that the organization recruited many field volunteers to support remote monitoring and reporting of activities during the COVID-19 in different settlement blocks.

Furthermore, the findings exposed that 13% of the respondents were between the age of 39 to 48 with data indicating 72% representing males and 28% representing females. However, this age bracket consists of those staff in senior Programme and management positions and mainly experts with extensive experience in humanitarian services.

However, 2% of the respondents were at age of 18 years, data showed that 100% were males and 0% females. Moreover, respondents in age bracket were minority in World Vision International because, this bracket was associated with unskilled personnel who were mostly school going students. However, 4% of the staff wouldn't be identified by their age due to response error.

Table 4: Showing distribution category by age of the respondents

Age	No of Respondents	Male	Female	Percentage%
18	1	1	0	2
19-28	11	5	6	20
29-38	33	18	15	61
39-48	7	5	2	13
No response	2	0	2	4
Total	**54**	**29**	**25**	**100**

Source: Primary Data

4.1.4 Distribution category by marital status.

Findings revealed that 78% of respondents were married and they took the largest percentage of staff working for World Vision International in Bidi-Bidi refugee settlement during the Covid-19 period. More so, out of the 78%, data showed that 55% of respondents were male staff whereas, 45% were female staff, this suggests that male married staff were the majority compared to female married staff.

Nevertheless, the research also showed that 13% of the respondents were not married, data showed 57% of respondents were males whereas, 43% were females. The primary reasons for the high number of male staff being single was attributed to being new at job and lack of enough finance to establish a family. Moreover, qualitative information generated from a face-to-face interview with P002 (respondent) on the 26th January

2024, said that “I have just spent 2 years working, I need more money to settle myself before getting married”.

In addition, 17% of the respondents were separated or divorced by their husbands or wives, data showed that 75% of the respondents were females whereas, 25% were males. The study also revealed that the primary reason for the high number of female staff separated or divorced was linked to domestic violence mainly family neglect as reported by both male and female respondents.

Moreover, qualitative information generated from an interview with P008 (respondent)in Yoyo zone three on 21/01/2024, said “my husband abandoned me with my three (3) children after arriving to the refugee settlement from South Sudan in 2019, had I had to struggle to feed, educate and provide all basic needs to my children, since then, I have lived alone without remarrying again”.

Table 5: Showing distribution category by marital status

Marital status	No. of respondents	Male	Female	Percentage%
Single	7	4	3	13
Married	42	23	19	78
Separated	4	1	3	7
No response	1	1	0	2
Total	54	29	25	100

Source: Primary Data

4.1.5 Distribution category by education level.

The findings revealed that 48% of respondents have attained university education either Bachelors or master's degree in different fields, data showed the male staff taking the highest percentage of 65% compared females with 35%.

Qualitative information generated from face-to-face interview with P002 (respondent) on the 26/1/2024 said "I have obtained bachelors and masters thus, the key reason of the management position in the organization"

Finding also showed that 37% of respondents have attained diploma qualification in different fields, data showed the females taking the highest percentage of 55% compared to 45% for males. More so, qualitative information generated from a face-to-face interaction with P004 (respondent) revealed that lack of financial support has hindered the access university education hence, diploma course became the only reliable option.

Study also showed that 13% have attained secondary education either ordinary certificate (senior 4) or advance certificate (Senior 6), data showed that 72% were females and 28% were males. Result also found that staff under this category were mainly support staff and incentive volunteers.

In addition, study further showed that 2% of the respondents have attained primary education that is to say primary 7 certificate, data showed 100% representing 1 (one) female respondent.

Qualitative information generated from face-to-face interview with P008 (respondent) on the 21/1/2024 said that "I only completed primary education, and would only work as field assistant in the organization.

Table 6: Showing distribution category by education level.

Education	No. of respondents	Male	Female	Percentage%
Primary	1	0	1	2
Secondary	7	2	5	13
Diploma	20	9	11	37
University	26	18	8	48
Total	54	29	25	100

Source: Primary Data

4.1.6 Distribution category by experience (years) in humanitarian sector

Findings revealed out that 79% of respondents had worked in humanitarian sector for at least 1-5 years, data further showed that of the 79% respondents, 54% were male respondents while, 46% respondents were females. This suggests that males were the majority staff who had experience in humanitarian sector compared to female staff. More so, qualitative information generated from interview with P001 (respondents) in World Vision International on 22nd January, 2024 said "I had worked in 3 different humanitarian NGOs before joining World Vision International".

Findings also revealed that 17% of the staff had worked in the sector for at least 6-10 years, data showed that of the 17% respondents, 67% were male staff and 33% were females. Findings further revealed that this category of staff were those within managerial and programming unit. When interviewing P003 (respondents) on 26th January 2024, said "I have worked for 9 years since 2015 in the program unit tasked

with project design and lobbying" this statement further justified the reasons for retention of some key staff in an organization.

The research further found that 4% of the respondents representing 1 female had less than 1-year experience in the sector. The category of staff under this bracket includes those who got employed newly in the organization.

Table 7: Showing distribution category by experience in humanitarian sector.

Experience in Humanitarian Sector	No. of respondents	Male	Female	Percentage %
Less than 1 year	2	0	2	4
1-5	43	23	20	79
6-10	9	6	3	17
Total	**54**	**29**	**25**	**100**

4.2 FORMS OR TYPES OF REMOTE MONITORING METHODS

This section consists of data generated from the first study objective that sought ascertain the forms of remote monitoring methods used by World Vision International during the COVID-19 situation in Bidi-bidi refugee settlement as presented in section 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6 and 4.2.7 below.

4.2.1 Findings on the understanding of the concept of remote monitoring techniques used by the staff in World Vision International during COVID-19 period.

Findings revealed out that 63% of the respondents understood the connotation of remote monitoring methods or technique as "monitoring of activities without reaching beneficiaries using digital means like telephone and community structures like outside staff. More so, the study also found out that of the 63% respondents, the females were the majority with 62% (21 respondents) and 38% (13 respondents) were males.

Qualitative information generated from face-to-face interview with P004 (respondent) on the 19/1/2024 also understood remote monitoring concept as "coordination project activities without physical presence through the aid of remote devices like phones, internet and so on."

Besides, 33.3% of the respondents also defined remote monitoring method or techniques as "monitoring project activities far from the organization project areas by organization staff". The study further found out that of the 33.3% respondents, the males were the majority with 83% (15 respondents) and 17% (3 respondents) were females.

In an interview with P006 (respondent) on the 28/1/2024, similarly understood remote monitoring concept as "support to activities by third party agents i.e. those personnel hired to perform tasks on behalf of the organization in absence of the project team during emergencies like war, pandemic, natural disasters etc."

The study also found out that 3.7% of the respondents view remote monitoring method or technique as “activities conducted with recommended monitoring tools to support implementation of activities”, of the 3.7% respondents, the males were with 50% (1 respondent) and 50% (1 respondent) were females.

In a face-to-face interview with P003 (respondent) on the 26/1/2024, understood remote monitoring concept as “a systematic monitoring of activities using a well programmed tools such as Kobo collect, supported with ICT resources like internet, tablets, among others.”

Table 8: Findings on the understanding of the concept of remote monitoring techniques used by world vision international staff.

Concept of remote monitoring technique	**No. of respondents**	**Male**	**female**	**Percentage %**
Activities conducted with recommended monitoring tools to support organization implement activities	2	1	1	3.7
Monitoring of activities without reaching beneficiaries using digital means like telephone and community structures like outside staff	34	13	21	63
Monitoring project activities far from the organization project areas by organization staff	18	15	3	33.3

Total	**54**	**29**	**25**	**100.0**

Source: Primary Data

4.2.2 Findings on the involvement of World Vision Staff in remote monitoring during the COVID-19 period.

Findings revealed that majority of respondents (94%) reported involvement in remote monitoring, signifying unanimous engagement in remote monitoring of activities during the COVID-19 period. During an interview with P004 (respondent) on 19th January 2024, said that "When the COVID-19 lockdown was declared, the staff were restructured, I was among the few staff who remained working remotely from home and I would coordinate activities through phone calls and internet meetings to ensure continuity of our projects in Bidi-bidi refugee settlement".

The study also found out that of the 94% respondents, the males were majority with 53% (27 respondents) reported involvement in remote monitoring methods compared to 47% (24 respondents) females. The reason was attributed to the downscaling factor which affected female staff most compared to male staff working in world vision international during the onset of the COVID-19.

During an interview with P002 (respondent) on 26th January 2024, said that "Major of female staff were affected most by the restructure policy, few females who remained were those in senior technical position because management believed that male majority would handle the situation, better than their counterparts (female)".

On the other hand, 2% of the respondents declared no involvement in remote monitoring of activities during the COVID-19; the main reason was attributed to unfamiliarity on the remote monitoring technique. Furthermore, the study also found out that those staff who responded to have not been involved, majority were volunteer with low qualification and skills.

However, 4% of the respondents didn't response to the question on if they were involved or not involved in remote monitoring of activities during the covid-19 period.

Table 9: Findings on the involvement of World Vision International staff in remote monitoring during the COVID-19 period.

Involvement in any remote project monitoring	No. of respondents	Male	Female	Percentage %
No	1	0	1	2
Yes	51	27	24	94
No response	2	2	0	4
Total	**54**	**29**	**25**	**100**

Source: Primary Data

4.2.3 Findings on the type or form of remote monitoring method used by World Vision International during the COVID-19 period.

The study identified two (2) main forms/types of remote monitoring methods predominantly used by World Vision International during the COVID period specifically, integrated community-based method and information, communication and technology (ICT) methods.

The findings further showed that integrated community-based method 56% was largely used in monitoring activities during the COVID-19 compared other methods like ICT method, the study further clarified that integrated community-based method primarily involved engagement of locally existing community structures such as community leaders, block leaders, women groups, youths, refugee welfare committee to support

activity monitoring and reporting in the absence of World Vision International project staff on ground during the COVID Period.

In an interview with P009 (respondent) on 29th January 2024, said “thanks to well organized community existing structures like LC1s, RWCs, LC3 and religious leaders, mobilization, coordination and monitoring of activities was simplified because they understand the activities, and community social dynamics very well, a phone call, or WhatsApp texts was enough to gather information during that time”.

Furthermore, the findings exposed a high percentage 60% of male staff in World Vision International acknowledged the use of integrated community-based method during the COVID-19 period compared to 40% of female respondents.

Interviews with P002 (respondent) on 26th January 2024, said “the organization largely relied on the field volunteers, community block leaders and the refugee welfare committees (RWCs) on ground to give feedback on the project activities in different locations through the aid of telephone nevertheless, internet platforms also played a major role in coordination with the community structures, supporting in sharing reports, activity photos among others”.

The findings further revealed that the use of integrated community-based method wouldn’t be possible without application of ICT platforms like telephone, internet services, emails, software applications like WhatsApp, zoom, mails among others because both methods complement each other to ensure desired outcome during the COVID-19 period.

In an interview with P005 (respondent) on 23rd January 2024, said “even though the Refugee welfare committees, and the LC1,2, &3 were on-ground, it was clearly difficult to contact and engage them in monitoring the activities, but through phone call, or WhatsApp facilitated the process”

Findings also showed that information, communication and technology (ICT) method took the second spot with 44% in monitoring project activities during the covid-19,

findings further clarified that ICT method largely involved the use of ICT platforms like telephone, internet services, emails, software applications like WhatsApp, zoom, mails among others.

Moreover, results also showed that 54% of female respondents in World Vision International agreed to have used information, communication and technology method during the COVID-19 period as well as 46% of male respondents. This implies that female staff were more contented in applying information, communication and technology (ICT) method compared to other forms of remote monitoring. Whereas, male staff found it easy to apply integrated community-based method.

Findings also revealed that third party monitoring technique or method was not used (0%) by World Vision International during the COVID-19.

Table 10: Showing the types or forms of remote monitoring method used by World Vision International during the COVID-19 period.

Forms of remote monitoring method	No. of respondents	Male	Female	Percentage %
ICT methods	24	11	13	44
Integrated community-based methods	30	18	12	56
Third- Party Monitoring technique	0	0	0	0
Total	**54**	**29**	**25**	**100**

Source: Primary Data

4.2.4 Findings on motivation factors for selection of the form/type of remote monitoring method used by World Vision International during the COVID-19.

The study established that 56% of the respondents agreed that convenience factor (devices requires less technical knowledge) encouraged World Vision International staff to use remote monitoring methods, data showed that 63% of female respondents supported the statement whereas, 37% of male respondents also agreed.

More so, during a face-to-face interview with P001 (respondents), said "it is simple to use personal cell phone to get information from field volunteers and community block leaders regarding on the progress of activities and vice-verse".

Findings also found out that 26% of the respondents agreed on the statement that remote monitor method was the available option for conducting monitoring of activities during the COVID-19, data showed that 78% of male respondents backed the statement whereas, 22% of female respondents also agreed.

In an interview with P005 (respondent) on the 23.01.2024, said that "only ICT platforms such as phones, internet applications like WhatsApp, google mails among others and support from existing community structures like the refugee welfare committee, block leaders, women groups and youths were readily available to facilitate project monitoring that time"

Furthermore, 10% of the respondents said the affordability of devices used in remote monitoring methods motivated the organization to use the method.

In an interview with P005 (respondent) said, "ICT platform and tools such as telephone, and airtime were affordable in terms of cost, many staff already possess one or two devices at that time and airtime allowance were provided by the organization".

The table 10 below provide data on the findings on the motivation factor for selection of the form of remote monitoring methods used by World Vision International during the covid-19.

Table 11: Showing motivation factors for selection of forms/types of remote monitoring method used by World Vision International during the COVID-19 period.

Motivation factor for selecting of RMM	No. of respondents	Male	Female	Percentage %
Convenience of the tool/ devices requires less technical knowledge	30	11	19	56
Affordability of devices and services	10	7	3	18
Availability of remote monitoring options	14	11	3	26
Total	**54**	**29**	**25**	**100**

Source: Primary data

4.2.5 Findings on sector of humanitarian services supported by the remote monitoring methods or forms during the COVID-19.

The study established that remote monitoring methods (ICT and integrated community-based method) were largely used in the protection sector 51%, this sector constitute of social programs or projects that focus on gender-based violence, mental health and psychosocial support to children, women, men and elderly in Bidi-bidi refugee settlement. The primary reason was attributed to the increased social protection cases such as rape, theft, suicides and domestic violence during the COVID-19 period which gave rise to increased donor support on social protection programs.

More so, qualitative information generated from a face-to-face interview with P002 (respondent) confirmed that projects namely, child protection, and psychosocial support implemented by WVI during the COVID-19 period were purely social protection projects.

Finding also showed that health and food security and livelihood sector both recorded 17% in application of remote monitoring techniques during the COVID-19, and 13% on Wash sector this is because most health and wash projects were directly implemented by the government during the COVID-19 period.

In an interview with P007 (respondent) on the 30.01.2024, said "the district authority with support from humanitarian organization was the lead agency implementing health and WASH component, during COVID-19, the government decided to directly implement such project to ensure smooth monitoring of national indictors especially for the health sector was paramount."

The study further revealed the education sector has been less monitored by the remote monitoring methods (2%) during the COVID-19, this is because of effects of lockdown on education sector as most of the learning centers were closed during the COVID-19 period.

Table 12: Showing findings on sector of humanitarian services supported by the remote monitoring methods or forms during the COVID-19.

Humanitarian sector	**No. of respondents**	**Percentage %**
Education sector	1	2
Heath sector	9	17
Wash sector	7	13

Protection sector	28	51
Food security and livelihood	9	17
Total	54	100

Source: Primary data

4.3.0 EFFECTIVENESS OF THE FORMS OF REMOTE MONITORING METHODS USED DURING COVID-19 PERIOD BY WORLD VISION INTERNATIONAL.

This section consists of data established from the second study objective that sought examine the effectiveness of the forms of remote monitoring methods used by World Vision International during the COVID-19 situation in Bidi-bidi refugee settlement; it further categorized the findings to specific sections namely: 4.3.1, 4.3.2 and 4.3.3 as seen below.

4.3.1 Findings on the definition of effectiveness by the staff in WVI

The study asked the respondents on the definition of effectiveness, results showed that 72% majority of the respondents agreed to the statement that effectiveness denotes "achievement of project objectives and goals in a timely manner within available resources". Thus, this indicates a moderate level of comprehension regarding the meaning of effectiveness within the sample, data further showed that of the 72%, 67% of male and 33% of female respondents agreed with the statement.

In an interview with P002 (respondent) on 26/1/2024 said that, "effectiveness is doing something or an activity well within the available means, resources and time meeting the stated goal."

Findings also revealed that 24% of the respondents agreed to the statement that effectiveness means "measurable progress achieved in terms of output, outcomes achieved and objectives", data showed that 77% of female and 23% of male respondents agreed with the statement. Nevertheless, 4% of the respondents agreed to the statement that effectiveness represents "achieving of output, and quality of planned activities", data also revealed that only 100% of female respondents agreed with the statement.

In an interview with P003 (respondent) on the 26/1/2024, similarly understood remote effectiveness as "the degree of attaining tangible project come out of a plan activity in measurable and justifiable means by the organization."

Table 13: Showing findings on the definition of effectiveness by the staff of World Vision International (WVI).

Effectiveness	No. of respondents	Male	Female	Percentage%
Achieving of output, and quality of planned activities.	2	0	2	4
Achieving project objectives and goals in a timely manner within available resources	39	26	13	72
Measurable progress achieved in terms of output, outcomes achieved and objectives	13	3	10	24
Total	54	29	25	100

Source: Primary data.

4.3.2 Findings on participation in formal trainings on remote monitoring methods by staff of world vision international during the COVID-19 period.

The study established that 74% of the respondents agreed that they were not trained on remote monitoring methods by the organization during the period of COVID-19, data showed that of the 74%, 57% of female and 43% of male respondents supported the statement.

In an interview with P003 (respondent) on 26.01.2024, said “resources (time, money and materials) were limited to facilitate online trainings to all the retained staff however, the organization utilized the ready remote monitoring options such the usage

of ICT and local structures in the community to reach the beneficiaries, collect information and reports on project progress".

Results also showed that 13% of the respondents agreed to have received training on remote monitoring methods during the covid-19 period, data showed that of 13%, 93% of male and 7% of female respondents supported the statement.

Nevertheless, qualitative information generated from a face-to-face interview with P002 (respondents) said that "few key staff received orientation on line on remote methodology and professional ethics organized by the management".

Results further showed that, 2% of the respondents didn't response to the question on if they were involved or not involved in remote monitoring training during the covid-19 period.

Table 14: Findings on participation in formal trainings on remote monitoring methods by staff of World Vision International during the covid-19 period.

Participation in RMM trainings	No. of respondents	Male	Female	Percentage %
No	40	17	23	74
Yes	13	12	1	24
No response	1	0	1	2
Total	54	29	25	100

Source: Primary Data

4.3.3 Findings on the effectiveness of remote monitoring methods used by World Vision International during COVID-19 period.

The study asked the respondents to rate effectiveness of remote monitoring methods based on three selected indicators refer to the table below.

On average, results showed a high score of 81.5% efficacy rate of remote monitoring methods on the measurable indicator of time and monetary cost associated with the methods applied during the COVID-19 period, suggesting a substantial outcome regarding remote monitoring methods.

In an interview with P005 (respondent) said, "ICT platform and tools such as telephone, and airtime were affordable in terms of cost, many staff already possess one or two devices at that time and airtime allowance were provided by the organization".

The study further found out that, of the 81.5% efficacy rates on time and monetary cost, 64% efficacy was attributed to the use of Information, communication and technology (ICT) method and devices such as use of mobile cell phones, laptops, ICT applications such as zoom, WhatsApp, skype, google and others whereas, 36% efficacy rate was attributed to the use of integrated community-based method which involved the use of existing local structures like block leaders, youths, refugee welfare committee, women groups and other structures.

Findings also revealed that 60% female respondents confirmed the efficacy of integrated community-based method and 37% females also agreed with the ICT technique. In contrarily, 63% of male respondents agreed with ICT method efficacy rate and 40% males agreed with integrated community-based method. This therefore, implies that female staff were more contented in applying integrated community-based method compared to other forms of remote monitoring. However, male staff found it easy to apply information, communication and technology (ICT) method.

In an interview with P003 (respondent) on 26th January 2024, said "field roles were done by volunteers, community block leaders and the refugee welfare committees (RWCs)

who monitor and report directly through telephone, WhatsApp group were created for sharing of activity photographs and also voicemails which were listen to and transcript in to complete report".

Nevertheless, in a similar interview with P007 (respondent) on 31st January 2024, said "ICT methods played a vital role in coordination and reporting of activity outcomes during the COVID-19 period, the field volunteers, community block leaders and the refugee welfare committees (RWCs) report through telephone and sometimes on WhatsApp still, internet programs also played a major coordination with stakeholders, donors especially organizing meetings, and sharing reports".

More so, the results further showed a moderate score of 76% of efficacy on the measurable indicator of Sustainability (easy to replicate the usages of the tools/devices), results further indicated that information, communication and technology method (ICT) recorded 61% efficacy rate on the sustainability indicator while, 39% efficacy rate was realized on the use of integrated community-based method.

Findings also revealed an average score of 57% efficacy of remote monitoring methods on a measure of convenience to use (easy applicability) associated with the methods applied during the COVID-19 period, results further indicated that information, communication and technology method (ICT) scored 62% efficacy rate on the convenience to use (easy applicability) indicator, this implied that respondents found it easy to apply ICT devices like cell phones, applications like WhatsApp and others while, 38% efficacy rate was realized on use of integrated community-based method.

Results further showed that, others responses on rating scale felt blow the average reporting point as seen blow. The primary reason was linked to the degree of results achieved from the three measurable indicators thus, the reason for low response by respondents.

Therefore, on average count, the study revealed that remote monitoring method(s) were effective in monitoring/ tracking project activities, signifying a generally positive

perception of its usefulness during the COVID-19 situation as used by World Vision International.

Table 15: Showing findings on the effectiveness of remote monitoring methods used by World Vision International during COVID-19 period.

The study asked the respondents to rate the effectiveness of the remote monitoring method(s) in improving their project activities during the COVID-19 situation. The responses were rated on a five-point scale where: **1** = Not effective **2** = Partial effective **3** = Effective **4** = Very effective and **5** = Not Sure as seen below.

Indicators of effectiveness of remote methods	Not effective	Percentage (%)	Partial Effective	Percentage (%)	Effective	Percent (%)	Very effective	Percent (%)	Not Sure	Percent (%)	Total Num	Total (%)
Efficient in term of time management factor.	0	0%	0	0%	44	81.5%	10	18.5%	0	0%	54	100
Convenience to use (easy applicability)	0	0%	3	6%	31	57%	20	37%	0	0%	54	100
Sustainability (easy to replicate the usages of the tools/devices)	0	0%	11	20%	41	76%	1	2%	1	2%	54	100

4.3.4 Findings on other tools or technologies better integrated to assist with remote monitoring during the covid-19 period.

The findings revealed that 14% of the respondents suggested for integration of ground positioning systems (GPS) satellites and devices along site remote monitoring

techniques/methods more so, data showed that 87% of male and 13% of female respondents agreed with the statement.

In an interview with P005 (respondent) on the 23rd January 2024 said that "data accuracy was lacking to support verification and evidence-based information needed by donors thus integrating due GPS data system would be key option to ensure accuracy and validity of data sources".

Results also revealed that 6% of the respondents suggested for integration of drone devices and offline communication devices such as Thuraya phones, radio landline and drone device in remote monitoring process, data further showed that 67% of male and 33% of female respondents agreed with the statement.

In an interview with P009 (respondent) on the 29th January 2024 said that "alternative devices like off line phones are idea to supplement existing tools because offline devices like landline, satellite phones would reduce costs linked to airtime purchase and service, also network challenges would be minimized".

However, study further revealed that 2% of the respondents suggested for integration of radio communication systems for sensitization proposes through talk shows, data showed that 100% of female respondents agreed with the statement.

Nevertheless, the study further showed that 72% of the respondents did not respond to the question on if there are any tools or technologies that would be integrated to assist with remote monitoring, data showed that 46% of male and 54% of female respondents didn't respond with the statement.

Table 16: Findings on other tools or technologies better integrated to assist with remote monitoring during the covid-19 period.

Alternative tools/ technologies	No. of respondents	Male	Female	Percentage %

Drones devices	3	3	0	6%
GPS software and devices	8	7	1	14%
Radio stations for sensitization	1	0	1	2%
Use landlines devices	3	1	2	6%
No response	39	18	21	72%
Total	54	29	25	100%

Source: Primary data

4.4 CHALLENGES ENCOUNTERED IN THE APPLICATION OF REMOTE MONITORING METHODS BY WORLD VISION INTERNATIONAL DURING THE COVID-19 PERIOD.

This section consists the challenges encountered in the application of remote monitoring methods, how it affected project monitoring, proposed way forward to address the challenges, the strategies adopted to address the challenges, area of remote monitoring methods that requires improvement and finally other tools or technologies better integrated to assist with remote monitoring during the covid-19 period as seen below in section 4.2.1, 4.4.2, 4.4.3, 4.4.4 and 4.4.5.

4.4.1 Findings on challenges encountered by World Vision International in the application of remote monitoring method during COVID-19 period.

Findings revealed out that 74% of the respondents strongly agreed on the statement that using remote monitoring methods is difficult to obtain reliable data because triangulation and mixed monitoring methods is limited, 24% of the respondents partially agreed with the statement and 2% strongly disagreed with the statement.

In an interview with P001 (respondent) on 22nd January 2024 said that, “data reliability is unpredictable during the COVID-19 period, data collection and reporting of field activities were done online by the volunteers or block leaders, detail information was largely missing in the field reports”.

Findings further revealed that 55.5% of the respondents strongly agreed with the statement that remote monitoring method was associated with high cost related to hiring of third partner monitors, human resource capacity development and online monitoring communication costs whereas 37% of the respondents partially agreed while 5.5% of the respondents strongly disagreed with the statement and 2% of the respondents were not sure of the statement.

In an interview with P001 (respondent) on 22nd January 2024 said that, “ICT platforms and the use of existing community structures resulted to over spending on structural and communication funds for instance, the organization retained 54 staff and 20

volunteers during the lock down, each staff receive 100,000 Ugandan shillings monthly as communication allows whereas, the volunteer at gets 150,000 Uganda Shillings monthly incentives".

Findings also showed that 61% of the respondents strongly agreed with the statement that remote monitoring methods are associated with limited accountability and high risks of fraud and diversion of funds and project resources as well as project data/ information security whereas 37% of the respondents partially agreed and 2% of the respondents disagreed with the statement.

Findings also discovered that 61% of the respondents strongly agreed with the statement that remote monitoring methods are associated with high exposure of local/embedded staff and beneficiaries to insecure situation (risk transfer), 32% of the respondents partially agreed and 7% of the respondents strongly disagreed with the statement.

The study results also revealed that 59% of the respondents strongly agreed with the statement that remote monitoring methods doesn't guarantee community and beneficiary engagement (un equal representation & participation of beneficiaries), 22% of the respondents partially agreed and 19% of the respondents strongly disagreed with the statement.

Table 17: presents findings on challenges encountered by World Vision International in the application of remote monitoring method during COVID-19 period.

Rate	**Difficulty in obtaining Data**		**High cost**		**Limited accountability**		**High exposure**		**community participation uncertainty**	
SA	40	74%	30	55.5%	33	61%	33	61%	32	59%
PA	13	24%	20	37%	20	37%	17	32%	12	22%

D	0	0%	0	0%	1	2%	0	0%	0	0%
SD	1	2%	3	5.5%	0	0%	4	7%	10	19%
NS	0	0%	1	2%	0	0%	0	0%	0	0%
Total	54	100%	54	100%	54	100%	54	100%	54	100%

Source: Primary data

4.4.2 Findings on how the challenges of using remote monitoring methods affected project monitoring in World Vision International during the covid-19 period.

The study asked the respondents on how the challenges encountered in using remote monitoring methods have affected project monitoring in World Vision International during the COVID-19;

Findings revealed out that, 37% of the respondents said that it has caused high operation cost on communication against planned budget. Data further exposed that of the 37% respondents, 80% of male and 20% of female respondents agreed with statement. Nevertheless, in an interview with P001 (respondent) on 22nd January 2024 said that, "ICT platforms and the use of existing community structures resulted to over spending on structural and communication funds for instance, the organization retained 54 staff and 20 incentive support staff during the lock down, each staff receive 100,000 Ugandan shillings monthly as communication allows".

Findings also revealed that 28% of the respondents said that manipulated data affected credibility of information or reports submitted to donors. Finding further revealed that of the 28% respondents, 67% of female and 23% of male respondents agreed with statement.

This was equally confirmed during an interview with P003 (respondent) on 26th January 2024 who said that "data reliability was unpredictable during the COVID-19 period, data

collection and reporting of field activities were done online by the volunteers or block leaders, detail information was largely missing in the field reports".

The study also showed that 18% of the respondents revealed that there has been reduced communication and engagement of beneficiaries in project activities because few people are involved in the process. Data further revealed that of the 18% respondents, 50% of female and 50% of male respondents agreed with statement.

However, the results also showed that 15% of the respondents said that remote monitoring methods resulted to inadequate field data reported due to irregular updates by field focal personnel. Data further revealed that of the 15% respondents, 63% of female and 27% of male respondents agreed with statement.

Moreover, 2% said that the methods affected the feedback and complaint channel due to delayed responses and reporting of field findings. Data revealed that of the 2% respondents, 100% of female respondents agreed with statement.

Table 18: Findings on how the challenges of using remote monitoring methods affected project monitoring in World Vision International during the covid-19 period.

Statement /indicators	Number of respondents	Male	Female	Total Percentage (%)
High cost of operation on communication against planned budget	20	16	4	37
Inadequate field data reported due to irregular updates by field focal personnel	8	3	5	15

Delayed feedback and complain channel	1	0	1	2
Manipulated data/ information affected credibility of information / reports submitted to donors	15	5	10	28
Reduced communication and engagement of beneficiaries	10	5	5	18
Total	54	29	25	100

Source: Primary data

4.4.3 Findings on proposed way forward to address the challenges encountered in application of remote monitoring methods during the covid-19 period.

The study asked the respondents on the proposed way forward to address the challenges encountered in using remote monitoring methods during the COVID-19,

Findings revealed out that 46% of the respondents proposed sensitization and training of field focal personnel on monitoring and reporting mechanism, data further revealed that of the 46% respondents, 60% of female and 40% of male respondents agreed with statement.

More so, these findings also aligned well with information generated during an interview with P010 (respondent) on 29th January 2024 said that "training of staff and community incentive volunteers is crucial, it's a requirement that staff should understand the ethical code and procedures of conducting remote monitoring thus online orientations on the remote monitoring methodology and procedure should be implemented to ensure data reliability and trustworthiness".

Results also showed that 28% of the respondents proposed the need for triangulation of data/information sources to ensure information trustworthiness arising from data manipulation, findings further revealed that of the 28% respondents, 87% of male and 13% of female respondents agreed with statement. Whereas, 18% proposed strengthening of existing community structures through regular incentive support to enhance active commitment at field level, data showed that of the 18% respondents, 80% of female and 20% of male respondents agreed with statement.

Moreover, 6% of the respondents proposed the need for effective planning and strengthening of communication budget to support smooth coordination process, data also revealed that of the 6% respondents, 100% of male respondents agreed with statement.

Nevertheless, 2% of the respondents proposed that networking with partners to enhance verification of field data and information, data revealed that of the 2% respondents, 100% of male respondents agreed with statement.

Table 19: Findings on proposed way forward to address the challenges encountered in application of remote monitoring methods during the covid-19 period.

Statements	Number of respondents	Male	female	Total percentage (%)
Networking with partners to enhance verification of field data and information	1	1	0	2%
Sensitization and training of field focal personnel on monitoring and reporting mechanism	25	10	15	46%

Triangulation of data sources to ensure data/ information reliability.	15	13	2	28%
strengthening of existing community structures through regular incentive support to enhance active commitment at field level	10	2	8	18%
Effective planning and strengthening of communication budget to support smooth coordination process	3	3	0	6%
Total	54	29	25	100

Source: Primary data

4.4.4 Findings on area of remote monitoring methods that requires improvement.

The study revealed out that 44% of the respondents agreed that data collection and reporting mechanism requires most improvement" besides, data showed that 67% of male and 33% of female respondents agreed with the statement.

More so, during a face-to-face interview with P004 (respondent) on the 19th January, 2024 said that "The procedure of data collection and reporting was very informal due to absence of specific tools such as online data collection and reporting templets".

Findings also revealed out that 26% of the respondents acknowledge the need for improvement on the area of knowledge and application of remote monitoring system, devices and ethical code of conduct, data showed that 36% of male and 64% of female respondents agreed with the statement.

Moreover, 17% of the respondents confirmed the need for improvement on the area of beneficiary engagement and participation during monitoring process, data showed that 67% of male and 33% of female respondents agreed with the statement.

However, 13% of the respondents acknowledged the need for to improve on data safety and security of information, data also showed that 28% of male and 72% of female respondents agreed with the statement.

Table 20: Findings on area of remote monitoring methods that requires improvement.

Area of remote monitoring methods that requires the most improvement	**Number of respondents**	Male	Female	**Total in percentage %**
Data collection and reporting mechanism	24	16	8	44%
Knowledge and application of remote system, devices and ethical code	14	5	9	26%
Beneficiary engagement and participation	9	6	3	17%
Data safety and security	7	2	5	13%
	54	29	25	100%

Source: Primary data

4.2.5 Findings on lessons learnt from the application of the form/type of remote monitoring methods.

On average, the study revealed an underscored degree (37%, 24%, 22% &17%) of lessons learned from remote monitoring activities, suggesting a significantly low level of insights gained from their experiences while using the remote monitoring methods during the COVID-19 situation; the primary reason being, remote monitoring methods and its associated devices for instance, ICT technique like phones, laptops, internet and applications like WhatsApp, zoom, google meet, emails and others have being used alongside traditional monitoring methods even before COVID-19 thus, the technique was viewed as common practice by the respondents.

In an interview with P003 (respondent) on 26th January 2024, said "before COVID-19, World Vision International have being supplementing the traditional monitoring method such as on-checks/physical site visits with remote monitoring methods such as information, communication and technology (ICT) through use of telephones and internet platforms as well as the use of existing community structures like the local leaders, women and youths and so on".

Nevertheless, 37% of the respondents agreed that the remote monitoring methods promotes self-supervision and empowerment, data further showed that 70% of female and 30% of male respondents agreed with statement.

In an interview with P010 (respondent) said, "ICT platform and tools such as telephone, are self-managing, less need for supervision compared to physical monitoring thus, one is empowered to plan and self-direct, and manage time and other duties like planning and reporting".

However, 24% agreed that remote monitoring methods were applicability in both normal and during emergency context, data also showed that 69% male and 31% female respondents agreed with the statement.

Still, 22% learnt that the method works best with availability ICT devices and community structures during emergencies. Moreover, 17% learnt that Manipulation of results is common.

In an interview with P005 (respondent) on 23rd January 2024, said "even though the Refugee welfare committees, and the LC1,2, &3 were on-ground, it was clearly difficult to contact and engage them in monitoring the activities, without the use phone, or WhatsApp facilitated the process".

Table 21: Findings on lessons learnt from the application of the form/type of remote monitoring methods.

Lessons learnt	No. of respondents	Male	Female	Percentage%
Promotes self-supervision and empowerment	20	6	14	37
RMM are applicable to both normal and during emergency context	13	9	4	24
Remote monitoring methods can only work best with availability ICT devices and community structures in emergency	12	10	2	22
Manipulation of results is common	9	4	5	17
Total	54	29	25	100

Source: Primary data

CHAPTER FIVE

DISCUSSION OF RESULTS

5.0 Introduction

In this chapter, the discussion of the study findings was presented. The discussion of the results was organized based on the three objectives of the study starting with the first objective of the study which sought to ascertain the forms of remote monitoring methods practiced by world vision international during the COVID-19 situation shown in section 5.1, section 5.2 presented the discussion on second objective of the study that sought to examine the effectiveness of forms of remote monitoring methods used by the World Vision International during the COVID-19 situation.

Finally, section 5.3 consists of the discussion on the third study objectives that sought to explore the challenges faced by World Vision International while practicing remote monitoring methods during the COVID-19 situation. Moreover, the discussions were interlinked with literature review arguments to find the agreement and disagreement of findings with the existing literature view of the study.

5.1 Discussion of the findings in relation to forms of remote monitoring methods practiced by World Vision International during the COVID-19 situation.

In this section, the study pursues to explore the forms of remote monitoring methods, understanding of the concept of remote monitoring, motivation factor for the choice of remote methods, training on remote techniques, sector application of the remote methods during COVID-19.

The study revealed mainly two forms of remote monitoring method used during COVID-19 by World Vision International that is, Information Communication Technology (ICT) method which denotes the application of platforms such as telephone, internet services, emails, software applications like WhatsApp, zoom, mails to communicate, monitor and share reports between program staff and stakeholders (Community members, volunteers, local leaders and donors).

Moreover, the second method was Integrated Community-Based remote monitoring method which denotes the involvement of existing community structures such as local leaders, youths, women groups, religious institution among others to support project monitoring, and reporting at community level. Findings further revealed that the method was largely used and preferred by male staff compared to females. This finding therefore, agrees with Women Refugee Commission and War Child Holland, (2020) who equally asserted that involvement of embedded staff and local leaders/stakeholders enhances monitoring of project progress for humanitarian actors operating in distance mode with less direct support hence guaranteeing sustainability ensuring sustainability.

Moreover, the study also showed a moderate level of comprehension/understanding of the concept of remote monitoring practices among the World Vision staff denoted by similarities on key words used in explaining the concept for instance as online, far from project location, tracking of progress and outputs etc. Therefore, this implies that the staff in World Vision International have the knowledge of remote monitoring concept as exposed by the findings. This finding therefore, agrees with Herbert (2013) and Women Refugee Commission and War Child Holland, (2020) understanding on remote monitoring methods concepts.

The study also showed that capacity building on ICT and ICBM forms of remote monitoring system was conducted to the staff, signifying a moderate comprehension and unanimous engagement on remote monitoring of activities during the COVID-19 period. This further, suggesting an assumption that the assertions made by Corlazzoli (2014) and Dette.R et al, (2016) regarding the convenience of remote methods like ICT may have directly influenced the finding.

The study further revealed out that respondents confirmed to have used information, communication and technology (ICT) method, findings also discovered that females were majority users on assumption that found it easier and comfortable to use ICT compared to other forms of remote monitoring. This result further agrees with assertions made by Corlazzoli (2014) and Dette. R et al, (2016) who resolved that less

effort, skills and time are required to operate ICT remote devices like mobile phones, data entry with tablets and other online communication platforms.

The study has also addressed the literature gap existing in (Burri, 2014) clinical evaluation which suggested that information, communication and technology (ICT) platforms like telephone, internet services, emails, software applications like WhatsApp, zoom, mails were reliable means and aid for enhancing remote feedback mechanism in real life situation which would have directly informed his study findings on improved patients' outcomes through remote monitoring aid.

The study found a unique symbiosis relationship between integrated community-based and ICT method, results showed both methods complement each other to ensure desired outcome during the COVID-19 period for instance, using integrated community-based method requires the use of existing community structures to support project monitoring at community level which wouldn't be possible without application of ICT platforms like telephone, internet services, emails, software applications like WhatsApp, zoom, mails to communicate and vice-verse. This finding agrees with (Burri, 2014) clinical evaluation conclusion on improved patients' outcomes through remote monitoring aid where feedbacks are given without necessary physical presence the project implementers and beneficiaries.

The study also found out that convenience factor was the primary reason for using a particular form or type of remote monitoring techniques according to male respondents. For instance, qualitative data from an interview with one respondent in World Vision International said "it is simple to use personal cell phone to call the volunteers and community block leaders to enquire on the process of the projects and vice-verse". This finding also aligned well with assertions made by Corlazzoli (2014) and Dette.R et al, 2016) regarding the convenience of remote methods like ICT adoptability which requires less advance computing skills to operate devices like mobile phones, data entry with tablets and other online communication platforms.

Findings revealed that staff were not trained on remote monitoring system during the period of COVID-19. Qualitative information from an interview with a respondent said

"the resources were limited to facilitate online trainings to all the retained staff". Besides, few staff received training on remote monitoring. This result simply confirmed Dette. R et al, (2016) who concluded that ICT technology devices require less knowledge and skills to apply hence, it's affordable and doesn't request trainings.

5.2 Discussion of the findings in relation to the effectiveness of forms of remote monitoring methods used by World Vision International during COVID-19 situation.

The second study objective sought to examine the effectiveness of forms of remote monitoring methods used by the humanitarian agencies during the COVID-19 situation in Bidibidi refugee settlement.

The study revealed a high score regarding the meaning of effectiveness among staff of World Vision International thus, an indicator of a moderate level of comprehension on the connotation of effectiveness; this further implies that remote monitoring system was not a new technique to the staff. The finding more so aligned well with the OECD/DAE (2009), Wysocki (2011) and Bharat Bista, (2007) whose assertions emphasized that a measure of output, outcomes and quality, judging the extent to which goal and objectives have been achieved denotes effectiveness. Besides, the results also revealed similarities with the scholarly literature.

The study showed a high efficacy rate of remote monitoring methods on time management factor while, some degree of efficacy was linked to use of information, communication and technology (ICT) methods such as use of mobile cell phones, laptops, ICT applications such as zoom, WhatsApp, skype, google among others. Notably, certain degree of efficacy was also attributed to the use of integrated community-based method which involved the use of existing local structures like block leaders, youths, refugee welfare committee, women groups and so on. Thus, this result provides an assumption on a substantial project outcome realized by World Vision International through use of remote monitoring methods during the COVID-19 period. The finding undoubtedly agrees with Taptue, Hoogeveen and the world bank (2019) who concluded that remote methods/techniques are time saving; potentially decreases cost

associated with transportation, printing, data entry and staff hours hence ensures effective use of resources.

The study revealed an underscored degree on lessons learned from using remote monitoring methods, suggesting a significantly low level of insights gained from using remote monitoring methods during the COVID-19 situation. The primary reason being, remote monitoring methods have been used alongside traditional monitoring methods even before COVID-19 thus, the technique was viewed as an existing practice by the respondents. Nevertheless, the study further acknowledged a limitation in establishing tangible findings on lessons gained from using remote method because of limited response rate from the research tool (questionnaire). In addition, few respondents managed to answer to the question during face-to-face interview.

5.3 Discussion of the findings in relation to the challenges faced by World Vision International when practicing remote monitoring methods during the COVID-19 situation.

The third study objectives to sought to explore the challenges faced by World Vision International when practicing remote monitoring methods during the COVID-19 situation in Bidibidi settlement.

Findings revealed out that using remote monitoring methods is difficult to obtain reliable data because triangulation and mixed monitoring methods is limited thus, finding agrees with scholarly literature of (Dube, 2021) who explained that remote monitoring of activities through ICT techniques like using phones to collect data often limits deep probing that affects trustworthiness of the data.

Findings further revealed that remote monitoring method was associated with high cost related to hiring of monitors, human resource capacity development and online monitoring communication costs, this further disagrees with (Hogeveen, 2020) and (World Bank, 2019) who asserted that ICT method is cost saving effective method in remote monitoring context on assumption that it decreases cost associated with transportation, printing, data entry and cleaning, coding and staff hours hence ensures

effective use of resources. Moreover, the study certainly addressed the notable information gaps found in (Harrison, 2020) and (Steets, 2016) who did not bring out in their discussion the cost associated with using remote monitoring methods linked to hiring consultants, communication and purchase of digital devices like laptops, tablets, Thuraya phones and so on.

The study has therefore addressed the notable gap found in Harrison (2020), Segmeister & Streets (2016) as well as disagreeing with (Hogeveen, 2020) and (World Bank, 2019) regarding cost saving effectiveness of remote methods in emergency situation.

Findings also showed that remote monitoring methods are associated with limited accountability and high risks of fraud and diversion of funds and project resources as well as project data/ information security. Thus, it disagrees with (Steets, 2016) who reasoned out that third party monitoring method (TPM) reduces fraud cases globally since independent monitors can help validate outputs and processes, even as the quality of the data collected and the level of accountability achievable.

Findings also discovered that remote monitoring methods are associated with high exposure of local/embedded staff and beneficiaries to insecure situation (Risk Transfer) hence, agrees with (Corlazzoli, 2014) who pointed the issues of safety and security of individual or local community assigned the task of collecting information on ground may not be possible as they are vulnerable to risks associated with the nature of the emergency.

The study results also revealed that remote monitoring methods doesn't guarantee community and beneficiary engagement (un equal representation & participation of beneficiaries). This perfectly agrees with (Norman, 2012) who reasoned that the degree of beneficiary participation or representative is often limited as it neglects underprivileged groups from participating. Norman further suggested for inclusive or participatory monitoring method, and increase key informants base would address issues of participation during project monitoring. Furthermore, (Corlazzoli, 2014) equally pointed out that the tendency of selection bias is associated with ICT method

hence inclusive participation of all stakeholder groups during data collection is undermined.

5.4. Summary of the study finding.

This study examined the forms, effectiveness, and challenges of remote monitoring methods employed by World Vision International during the COVID-19 pandemic, with a focus on operations within the Bidibidi refugee settlement. The findings revealed that two primary forms of remote monitoring namely, Information and Communication Technology (ICT)-based methods and Integrated Community-Based Monitoring (ICBM) were adopted, often used to complement to each other. Staff demonstrated a moderate level of understanding of remote monitoring concepts, with gender related variations in method preference, as males favored community-based methods while females leaned toward ICT solutions.

In terms of effectiveness, the study found that remote monitoring facilitated time efficiency and cost management, especially through ICT tools such as mobile phones, Zoom, and WhatsApp. However, the effectiveness was tempered by limited learning insights, as the practice was not entirely new to the staff and often ran parallel to traditional monitoring approaches.

The study also identified several critical challenges, including limited data reliability, increased operational costs (contrary to some existing literature), accountability concerns, risks to local monitors' safety, and inadequate community engagement. These findings challenge some existing scholarly views that present ICT-based monitoring as cost-effective and secure, thereby filling a notable gap in the literature.

Overall, the study underscores the need for balanced, context-specific application of remote monitoring methods, supported by adequate training, risk mitigation measures, and strategies to enhance inclusion and data reliability in humanitarian operations during emergencies.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.0 Introduction

In this chapter, conclusion and recommendation of the study are presented on section 6.1 conclusion, section 6.2 recommendation and 6.3 future study.

6.1 Conclusion

This study sought to examine the forms, effectiveness, and challenges of remote monitoring methods adopted by World Vision International during the COVID-19 pandemic in Bidibidi refugee settlement. The findings contribute to a deeper understanding of how remote monitoring practices were applied in a humanitarian context under emergency constraints.

The first objective, which aimed to ascertain the forms of remote monitoring methods used, the study identified two primary forms of remote monitoring namely, Information and Communication Technology (ICT) methods and Integrated Community-Based Monitoring (ICBM). ICT methods involved the use of digital platforms such as mobile phones, email, WhatsApp, Zoom, and other online tools for communication and reporting whereas, ICBM relied on local structures, including community leaders, youth groups, and women's associations, to facilitate grassroots monitoring activities. These two forms were found to be complementary, each enhancing the effectiveness of the other. Moreover, ICT tools were preferred by female staff for their convenience while male staff largely favored community-based methods due to its practical applicability. Despite moderate levels of training, the staff demonstrated an adequate understanding of remote monitoring concepts, enabling effective implementation during the pandemic.

The second objective, which sought to examine the effectiveness of these methods, the study found that remote monitoring was largely effective in terms of time management and resource efficiency. ICT tools enabled rapid communication and

reduced physical movement, while community-based methods ensured data collection at the grassroots level. These findings affirm the adaptability and utility of remote monitoring during crisis conditions. Moreso, the study also found a limited ability to draw substantial lessons from the use of these methods, primarily due to the already existing use of remote practices and low engagement in feedback tools, indicating a need for improved documentation and learning mechanisms.

Finally, in relation to the third objective, which explored the challenges of using remote monitoring methods, quite a few limitations were identified. These included difficulties in ensuring data reliability due to reduced triangulation opportunities, high implementation costs associated with technology and human resource requirements, limited accountability, and data security concerns. Moreover, remote monitoring posed significant safety risks to local monitors and often excluded vulnerable or marginalized groups from participation. These findings contradict with some existing literature that suggests that ICT methods are cost-effective and inherently secure. Instead, the study highlights critical risks such as selection bias and insufficient community engagement, pointing to the need for more inclusive and ethically sound remote monitoring practices.

Conclusively, while remote monitoring methods provided practical solutions to project monitoring during COVID-19, the study emphasizes the importance of comprehensive training, equitable participation, and robust security measures to improve future remote monitoring initiatives in humanitarian settings.

6.2 Recommendation

In light of the findings from this study, the following recommendations are proposed to enhance the implementation and effectiveness of remote monitoring methods used by humanitarian organizations like World Vision International in similar emergency contexts:

Based on above study conclusion, the study established the following recommendations for the key actors namely, the humanitarian agencies (NGOs) and government for future remote monitoring practice.

Recommendation to the Non-Governmental Organizations (NGOs)

The study suggests that humanitarian agencies (INGOs, NNGOs and BBOs) should review their M&E frameworks and assess how to incorporate remote monitoring system not as an alternative monitoring option but as an ideal complementary to the traditional monitoring methods in both real life and emergency situations.

The study suggests that humanitarian agencies (INGOs, NNGOs and BBOs) should embrace capacity building (training) of staff on remote monitoring systems with focus on professional ethics, device application and software operation associated with remote monitoring system.

The study suggests that humanitarian agencies (INGOs, NNGOs and BBOs) should avoid risk transfer by ensuring that remote monitoring approaches identify and address the risks to staff, partners and communities through establishment of safety and wellbeing protocols and how to remotely monitor activities. Besides, NGOs should provide safety and protection tips, materials and information to personnel supporting the monitoring process at community levels in the future.

Finally, the study suggests that humanitarian organizations should embrace networking spirit through sharing of information, materials and knowledge to address the challenge of reliability and trustworthiness of data generated through remote monitoring method during emergency situation.

Recommendation to the government

The study suggests propose integration of ICT and community-based methods by government through its relevant ministries for instance Ministry of ICT, Ministry of Relief and Disaster Preparedness to support humanitarian actors by investing in

community digital infrastructure and promoting hybrid remote monitoring models that blend ICT tools with local leadership structures to enhance coverage and sustainability.

Furthermore, the study proposes government Standardize and regulate remote monitoring practices by develop clear national guidelines and frameworks for remote monitoring to ensure consistency, data protection, and ethical practices, especially in fragile settings like refugee settlements.

The study also suggests the strengthening of digital infrastructure and access in refugee and rural settings by investing in reliable internet connectivity and distribution of mobile devices to under-resourced zones like Bidi-Bidi. This would enhance the effectiveness and reliability of remote monitoring systems during emergency and normal situation.

Finally, the study propose government through the office of the prime minister (OPM) to Institutionalize data sharing protocols by developing collaborative frameworks for real-time data sharing between NGOs, community structures, and government agencies to strengthen coordinated responses and improve monitoring efficiency.

6.3 Further research

This study contributes to the growing body of knowledge on remote monitoring practices in humanitarian settings, particularly within the context of public health emergencies such as the COVID-19 pandemic. While it reaffirms findings from earlier studies such as the utility of ICT tools (Corlazzoli, 2014; Dette et al 2016) and the role of community-based method (War Child Holland, 2020) it also addresses underexplored areas, including the operational challenges and gendered dynamics in remote monitoring practices. However, several areas emerged that warrant further investigation:

1. Comparative analysis across humanitarian contexts. Even though this study focused on World Vision International's operations in Bidibidi refugee settlement, further research could examine how remote monitoring practices differ across various humanitarian settings (e.g., urban vs. rural, conflict zones vs. stable areas). A cross-agency or multi-

country comparison could offer broader insights into contextual adaptations and best practices.

2. Gender dynamics in remote monitoring. The study found notable gender-based differences in the adoption and preference of monitoring tools for instance, female staff favoring ICT methods while males preferred ICBM. Further research is needed to explore the underlying factors behind these differences and how remote monitoring systems can be designed to better support gender inclusion.
3. Long-term impact and sustainability of remote monitoring. Since this study was limited to the pandemic period, future research should investigate the long-term effectiveness and sustainability of remote monitoring methods beyond emergency settings. This could include examining whether these methods remain cost-effective, participatory, and accurate over time.
4. Digital equity and access. As the study confirmed that remote monitoring heavily relies on digital tools, further studies should examine issues related to digital divide, especially among community monitors and vulnerable populations. This includes investigating barriers to access, digital literacy, and the implications for equitable participation in project monitoring.

   Therefore, by building on the basics of previous studies, future research can help refine remote monitoring strategies to be more inclusive, cost-effective, and contextually adaptable in both emergency and non-emergency settings

APPENDIX

APPENDIX I: RESEARCH QUESTIONNAIRE INSTRUMENT

Location: _____ Date: _____ Time: _____

INTRODUCTION

Hello! my name is Denish Daga, a student of Uganda Christian University Mukono perusing Master degree in Development Monitoring and evaluation. The purpose of this research is to examine the usefulness/effectiveness of remote Monitoring methods during the COVID-19 pandemic of humanitarian agency (NGO) implementing refugee programs in Bidibidi refugee settlement in Yumbe district. I will be conducting interviews and discussions with various people who have been involved in the monitoring process of different humanitarian projects during the Covid-19.

The findings will be written up into a report and shall be submitted for examination at Uganda Christian. This interview will cover three main areas. Although, I will be asking your name, the information will be confidential and your name will not be linked to anything you say in the final report. I understand you are probably very busy and I hope this will not take much more than 30 minutes. I really appreciate your willingness to answer my questions but please be assured that this is entirely voluntary so if there is anything you don't want to answer or if you need or want to stop this interview at any time, just let me know.

SECTION A: PERSONAL DATA

0.1 Name: _____

0.2 Full Job Title: _____

0.3 Name of the organization: _____

0.3 Length of time involved in project and role: _____

1. **Parish** _____ Village_____

2. **Sex:** Male ☐ Female ☐

3. **Age:** 18 Years ☐ 19-28 years ☐

29-38 years ☐ 39-48 years ☐

49 above ☐

4. **Marital status:**

Single ☐ Married ☐

Separated ☐ Others (specify) _____

5. **Education level:**

Primary ☐ Secondary (S.4, S.6) ☐

Diploma ☐ University education ☐

Others specify_____

6. How many years of experience do you have in humanitarian work?

i. Less than 1 year ☐
ii. 1-5 years ☐
iii. 6-10 years ☐
iv. More than 10 years ☐

SECTION B: FORMS OR TYPES OF REMOTE MONITORING METHODS

1. What do you understand by remote monitoring technique?

_____

_____

2. Have you been involved in any remote project monitoring during the COVID-19 period?

Yes ☐ No ☐

3. If yes, what type or form of remote monitoring method did your organization adopted during the COVID-19 period? (Tick all that apply)

i. ICT Remote technique ☐
ii. Integrated Community-Based method ☐
iii. Third- Party Monitoring technique ☐
iv. Others (please specify) _____

4. If No, how did your organization carry out project monitoring during the COVID-19 lockdown period?

_____

_____

_____

5. What motivated your organization to select the type or form of remote monitoring method identified in question three above?

_____

_____

Yes

No ☐

6. Which sector of humanitarian service is the selected form of remote monitoring method applied in your organization during the COVID-19 period?
   i. Education Sector ☐
   ii. Health sector ☐
   iii. WASH sector ☐
   iv. Protection sector ☐
   v. Food security and livelihood ☐
   vi. Others (please specify) _____
7. Prior to COVID-19, which monitoring methods did your organization predominantly use?
   i. On-site visit ☐
   ii. ICT technique ☐
   iii. Integrated community-based method ☐
   iv. Third-party monitoring technique ☐

v. Others (specify)_____

SECTION C: EFFECTIVENESS OF THE FORMS OF REMOTE MONITORING METHODS

1. How do you define effectiveness?

   _____

   _____

   On a scale of 1-5, how would you rate the effectiveness of the remote monitoring method(s) in improving your projects during the COVID-19 situation?

   Where: **1** = Not effective **2** = Partial effective **3** = Effective **4** = Very effective

   5 = Not Sure

S/N	**Indicators of effectiveness of methods**	**1**	**2**	**3**	**4**	**5**
1	Efficient in term of time, and monetary cost.					
2	Easy to apply and adopted by users, less operational procedure/practicality.					
3	Sustainability (easy sustain the results or replicate or the usages of the tools					
4	If you have other effective indictors, please specify. _____					

   _____

   _____

2. Have you participated in any formal training or workshops related on remote monitoring?

   YES ☐ NO ☐

3. Are there any tools or technologies that you wish were available or better integrated to assist with remote monitoring? Please specify:

   _____

   _____

SECTION D: CHALLENGES ENCOUNTERED IN THE APPLICATION OF REMOTE MONITORING METHODS DURING THE COVID-19?

4. What challenges did your organization encountered in the application of the form/type of remote monitoring method identified in section B question 3 during the COVID-19 situation?

   Below are statements that present possible challenges of application of remote monitoring methods which may apply to your organization. Please indicate your level of agreement with each statement.

   Where: **SA**= Strong agree **PA**= Partially agree **D**= Disagree **SD**= Strongly disagree **NS**= Not sure

S/N	Possible challenges	SA	PA	D	SD	NS
1	Difficulty in obtaining reliable data because triangulation and mixed monitoring methods is limited, experience and adoptability to the monitoring systems by locals.					
2	High cost related to hiring of Third partner monitors, human resource capacity development and online monitoring communication costs.					

3	Limited accountability and high Risks of fraud and diversion of funds and project resources as well as project data/ information security.					
4	High exposure of local/embedded staff and beneficiaries to insecure situation (Risk Transfer).					
5	Un reliable community and beneficiary engagement (un equal representation & participation of beneficiaries).					
4	If you have other encountered challenges, please specify. _____					

5. How have these challenges affected project monitoring of your organization?

   _____

   _____

   _____

6. What suggestions do you propose to address the challenges mentioned above?

   _____

   _____

7. In your opinion, which area of remote monitoring methods requires the most improvement?

   i. Data reliability and collection ☐

   ii. Reducing costs ☐

   iii. Training and capacity building ☐

   iv. Ensuring data security ☐

v. Beneficiary engagement and participation ☐

vi. Others (specify)_____

_____

_____

8. Apart from the effectiveness of the remote monitoring methods in your organization, what lessons did you learnt from the application of the form/type of remote monitoring methods identified in section B.

Thank you very much for your responses May God bless you!

APPENDIX II: KEY INFORMANT INTERVIEW GUIDE

Location: _____ Date: _____ Time: _____

INTRODUCTION

Hello! my name is Denish Daga, a student of Uganda Christian University Mukono perusing Master degree in Development Monitoring and evaluation. The purpose of this research is to examine the effectiveness of remote Monitoring methods used during the COVID-19 pandemic of humanitarian agency (NGO) implementing refugee programs in Bidibidi refugee settlement in Yumbe district. I will be conducting interviews and discussions with various people who have been involved in the monitoring process of different humanitarian projects during the Covid-19. The findings will be written up into a report and shall be submitted for examination at Uganda Christian. This interview will cover four main areas. Although, I will be asking your name, the information will be confidential and your name will not be linked to anything you say in the final report. I understand you are probably very busy and I hope this will not take much more than 30 minutes. I really appreciate your willingness to answer my questions but please be assured that this is entirely voluntary so if there is anything you don't want to answer or if you need or want to stop this interview at any time, just let me know.

SECTION A: FORMS OR TYPES OF REMOTE MONITORING METHODS

1. What do you understand by the term remote monitoring methods or technique?

   _____

   _____

2. If yes, what type or form of remote monitoring method did your organization adopted during the COVID-19 period?

   _____

   _____

3. Which sector of humanitarian service was the selected form of remote monitoring method applied in your organization during the COVID-19 period?

   _____

4. Prior to COVID-19, which monitoring methods did your organization predominantly use?

_____

_____

SECTION B: EFFECTIVENESS OF THE FORMS OR TYPES OF REMOTE MONITORING METHODS

1. How do you define the term effectiveness?

_____

_____

2. Have you participated in any formal training or workshops related on remote monitoring?

_____

_____

3. Are there any tools or technologies that you wish were available or better integrated to assist with remote monitoring? Please specify:

_____

_____

SECTION C: CHALLENGES ENCOUNTERED IN THE APPLICATION OF REMOTE MONITORING METHODS DURING THE COVID-19?

4. What challenges did your organization entered in the application of the form/type of remote monitoring method identified in section A question 3 during the COVID-19 situation?

_____

_____

5. How have these challenges affected project monitoring of your organization?

_____

6. Please list and prioritize the solutions you propose to address these challenges.

   _____

   _____

7. What lessons did your organization learnt from the application of the form/type of remote monitoring methods?

   _____

   _____

Thank you very much for your responses May God bless you!!

APPENDIX III: RESEARCH ACTIVITY PLAN FOR DATA COLLECTION/ FIELD ACTIVITY

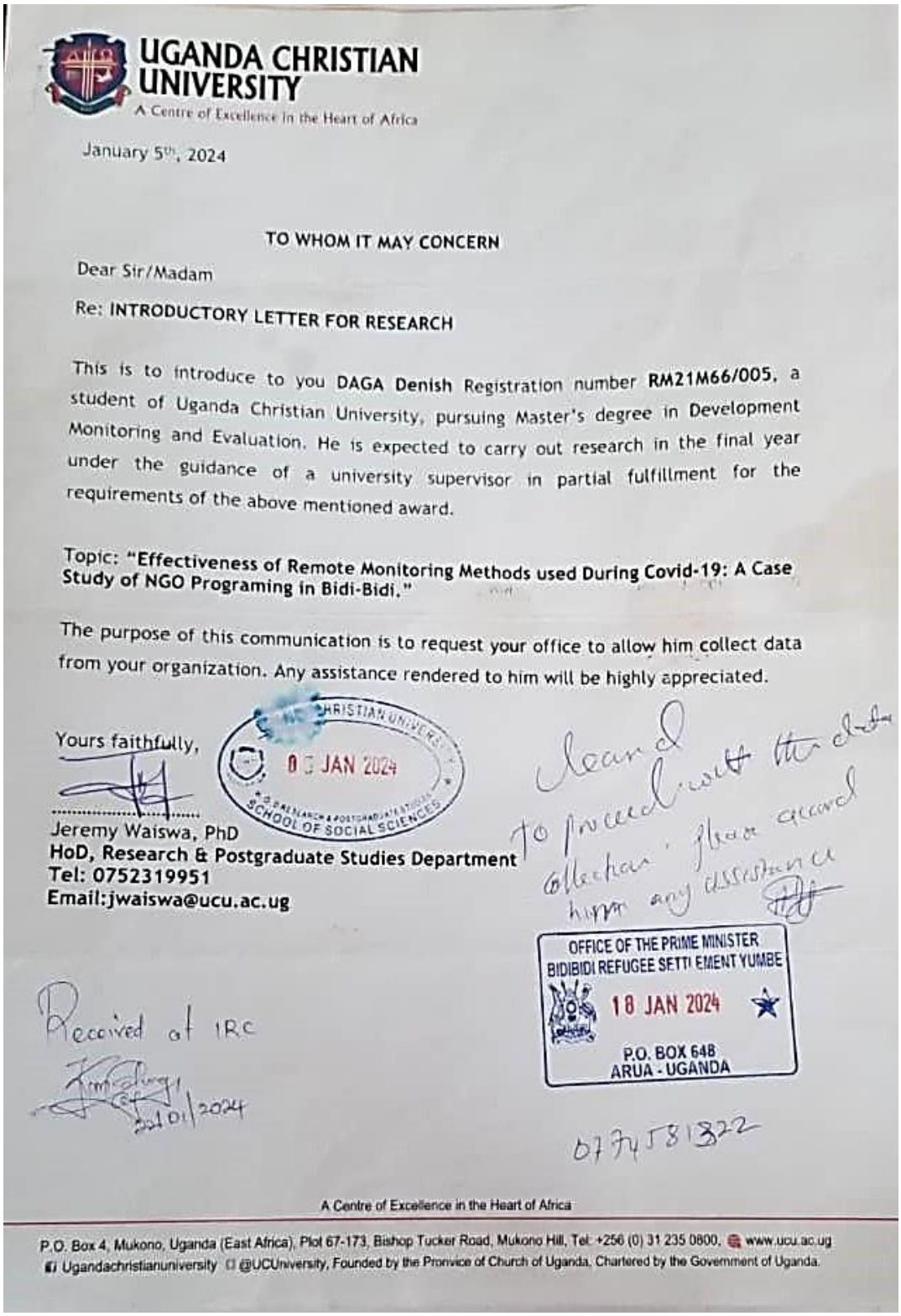
S/N	Activity Description	December 2023				January 2024				February 2024			
		W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
1	Letter from Research Ethical Committee												
2	Field Preparation (mobilization of resources)												
3	Travelling to the field for data collection												
4	Identification and Recruitment of research assistant and training												

5	Dissemination of letters to targeted district leaders and NGO administration												
6	Scheduling key informant interviews												
7	Questionnaires dissemination and collection												
8	Return from field												
9	Data analysis process												
10	Final Report writing												
11	Final Report printing and submission to the university												

KEY

	December 2023
	January 2024
	February 2024

APPENDIX IV: RESAERCH INTRODUCTION AND APPROVED LETTER



UGANDA CHRISTIAN UNIVERSITY
A Centre of Excellence in the Heart of Africa

January 5th, 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Re: **INTRODUCTORY LETTER FOR RESEARCH**

This is to introduce to you **DAGA Denish** Registration number **RM21M66/005**, a student of Uganda Christian University, pursuing Master's degree in Development Monitoring and Evaluation. He is expected to carry out research in the final year under the guidance of a university supervisor in partial fulfillment for the requirements of the above mentioned award.

Topic: **"Effectiveness of Remote Monitoring Methods used During Covid-19: A Case Study of NGO Programing in Bidi-Bidi."**

The purpose of this communication is to request your office to allow him collect data from your organization. Any assistance rendered to him will be highly appreciated.

Yours faithfully,

Jeremy Waiswa, PhD
HoD, Research & Postgraduate Studies Department
Tel: 0752319951
Email:jwaiswa@ucu.ac.ug

CHRISTIAN UNIVERSITY
08 JAN 2024
RESEARCH & POSTGRADUATE STUDIES
SCHOOL OF SOCIAL SCIENCES

Received at IRC
22/01/2024

Heard
To proceed with the data collection, please accord him any assistance

OFFICE OF THE PRIME MINISTER
BIDIBIDI REFUGEE SETTLEMENT YUMBE
18 JAN 2024
P.O. BOX 648
ARUA - UGANDA

0774581322

A Centre of Excellence in the Heart of Africa

P.O. Box 4, Mukono, Uganda (East Africa), Plot 67-173, Bishop Tucker Road, Mukono Hill, Tel: +256 (0) 31 235 0800, www.ucu.ac.ug
Ugandachristianuniversity @UCUniversity, Founded by the Province of Church of Uganda, Chartered by the Government of Uganda.

APPENDIX V: PARTICIPANT CONSENT FORM

Participant Consent Form

Study Title:

Examining the Effectiveness of Remote Monitoring Methods Used During the COVID-19 Pandemic by World Vision International in Bidibidi Refugee Settlement, Yumbe District, West Nile Region of Uganda

Principal Investigator: Denish Daga
Institution: Uganda Christian University Mukono
Contact Information: Email: denishveron.daga@yahoo.co.uk: Tel: +256780325315

Introduction:

You are highly invited to participate in a research study whose aim is to analyze the effectiveness of remote Monitoring methods used during the COVID-19 pandemic by World Vision International in Bidibidi refugee settlement in Yumbe district. Therefore, the purpose of this form is to provide you with information about the study, so you can make an informed decision about your participation.

Purpose of the Study:

This study aims to examine the effectiveness of remote monitoring methods employed by World Vision International during the COVID-19 pandemic in Bidibidi refugee settlement. Specifically, it seeks to:

1. Ascertain the forms of remote monitoring methods used.
2. Examine the effectiveness of these remote monitoring methods.
3. Explore the challenges faced while using these methods during the COVID-19 pandemic.

Why You Are Being Invited:

You are being invited to participate because you may have knowledge, experience, or involvement in project implementation, monitoring, or coordination at World Vision International or within the humanitarian response in Bidibidi settlement during the COVID-19 Pandemic.

Participation Procedures:

If you agree to participate in this study:

- You will be asked to respond to a questionnaire and/or participate in an interview.
- The duration will be approximately 30–45 minutes.
- Participation is entirely voluntary, and you may withdraw at any time without consequence.

Confidentiality:

- Your responses will be kept strictly confidential.
- No names or identifying information will be used in any reports or publications.
- All data collected will be stored securely and used solely for academic purposes.

Potential Risks and Benefits:

There are no known risks associated with participating in this study. However, the findings may inform better practices and policies in humanitarian programming, especially for monitoring during emergencies.

Voluntary Participation:

Your participation in this study is entirely voluntary. You are free to decline to answer any question or to withdraw from the study at any time, without penalty or loss of benefits.

Contact Information:

If you have questions or concerns about this study, please contact: Denish Daga on +256780325315 or by email: denishveron.daga@gmail.com Or the research supervisor: Associate Prof. Mary Ssonko Nabacwa, Uganda Christian University, on email address: msonko@devstudies.ucu.ac.ug

Consent Declaration

Please tick the boxes to confirm your understanding:

☐ I have read and understood the purpose and details of this study.
☐ I have had the opportunity to ask questions and receive satisfactory answers.
☐ I understand my participation is voluntary and I can withdraw at any time.
☐ I consent to participate in this study.

Name of Participant: _____
Signature: _____
Date: _____

Name of Researcher: _____
Signature: _____
Date: _____

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