



**VALUE FOR MONEY AUDIT REPORT**

of the

**AUDITOR-GENERAL**

on the

**IMPLEMENTATION OF THE DIGITALISATION OF BROADCASTING SYSTEMS AND SERVICES PROJECT**

By

**THE BROADCASTING AUTHORITY OF ZIMBABWE (BAZ) UNDER THE MINISTRY OF INFORMATION, PUBLICITY AND BROADCASTING SERVICES**



PRESENTED TO THE PARLIAMENT OF ZIMBABWE

**VFM 2025:02**



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Ref: SB 40 VFM

Office of the Auditor-General  
48 George Silundika Avenue  
Corner S.V. Muzenda Street,  
Harare, Zimbabwe

The Hon. Dr. J. Muswere  
Ministry of Information, Publicity and Broadcasting Services  
Munhumutapa Building  
55 Samora Machel Avenue  
Harare, Zimbabwe

Dear Sir

I hereby submit my Value for Money Audit Report on Implementation of the Digitalisation of Broadcasting Systems and Services Project by the Broadcasting Authority of Zimbabwe (BAZ) under the Ministry of Information, Publicity and Broadcasting Services in terms of Section 11 of the Audit Office Act [*Chapter 22:18*].

Yours faithfully,

R. KUJINGA

**ACTING AUDITOR-GENERAL.**

Harare,

March 21, 2025



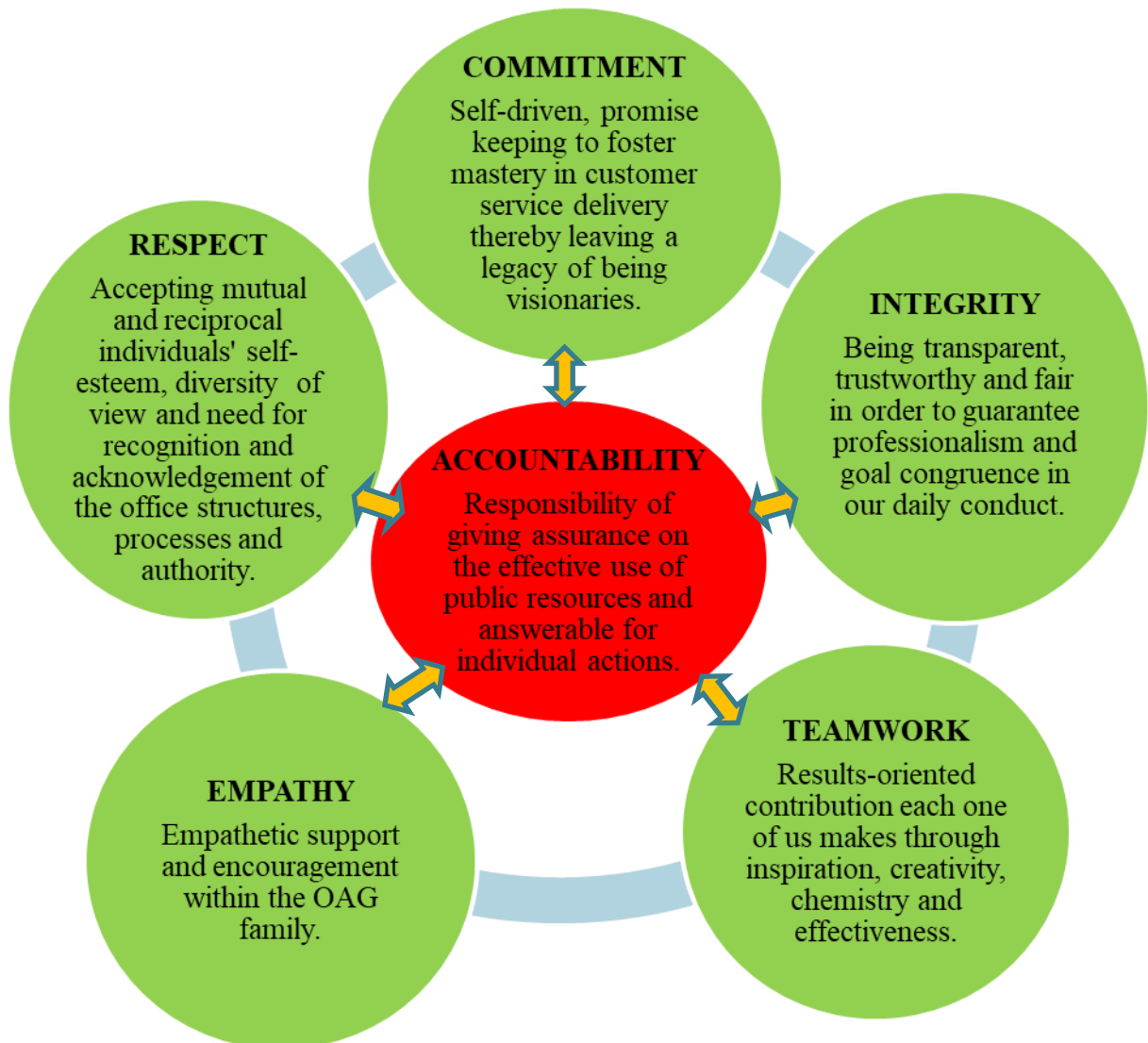
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## OAG VALUES





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## **ABBREVIATIONS**

<b>BAZ</b>	Broadcasting Authority of Zimbabwe
<b>RIDA</b>	Rural Infrastructure Development Agency
<b>DSNG</b>	Digital Satellite News Gathering
<b>DTT</b>	Digital Terrestrial Television
<b>DTV</b>	Digital Television
<b>DOB</b>	Digital Outside Broadcasting
<b>ENG</b>	Electronic News Gathering
<b>FM</b>	Frequency Modulation
<b>ITU</b>	International Telecommunication Union
<b>MAM</b>	Media Asset Management
<b>NLE</b>	Non-Linear Editing
<b>OAG</b>	Office of The Auditor-General
<b>RBZ</b>	Reserve Bank of Zimbabwe
<b>RDS</b>	Radio Data System
<b>SADC</b>	Southern African Development Community
<b>STB</b>	Set Top Boxes
<b>UPS</b>	Uninterrupted Power Supply
<b>ZBC</b>	Zimbabwe Broadcasting Corporation
<b>ZETDC</b>	Zimbabwe Electricity Transmission and Distribution Company

## DEFINITION OF TERMS

<b>Analogue television broadcasting:</b>	a television broadcasting service that uses continuous signals system of transmission.
<b>Broadcasting service:</b>	any service which delivers television or radio programmes to persons having equipment appropriate for receiving that service, whether the delivery is effected by means of or uses the radio frequency spectrum, cable, optical fibre, satellite or any other means or a combination of those means.
<b>Broadcast System:</b>	a system that transmits a signal to multiple receivers simultaneously, and can be used to transmit visual or audio information, such as television or radio data packets to all devices on a network domain.
<b>Digital dividend spectrum:</b>	excess broadcasting airwaves or frequency resources that are freed up or released due to changeover of an analogue television broadcasting technology to a digital television broadcasting technology.
<b>Equipment:</b>	all equipment related to digitalisation, broadcasting and ancillary Services.
<b>Final Acceptance Test:</b>	the final test conducted by BAZ on the whole broadcast system six months after completion of the project by the Contractor for purposes of testing whether the system operates to standards set by BAZ.
<b>Feasibility Study:</b>	preliminary exercise carried out for the ZimDigital project to determine the probability of completing the project successfully before it is undertaken.
<b>National Head-end:</b>	a facility where the content of all licensed broadcasters is received and incorporated for distribution to the transmission network including the application of conditional access and the generation of Electronic Programme Guide.
<b>Offshore Manufactured Equipment:</b>	refers to equipment which was produced or assembled in another country.
<b>Periodic Acceptance Test:</b>	the acceptance test conducted by BAZ before payment to Contractor to demonstrate that the system or solution provided at a given stage has been successful.
<b>Set-top-box/Decoder:</b>	a box-shaped device that converts an analogue television signal to digital to enable satellite television to be viewed.

<b>Site:</b>	the place where the Equipment is to be installed and operated.
<b>Terrestrial:</b>	the digital transmission infrastructure built on ground surface or located on the earth's surface.
<b>ZimDigital Project:</b>	refers to the Digitalisation of Broadcasting Systems and Services project.

## EXECUTIVE SUMMARY

The implementation of the Digitalisation of Broadcasting Systems and Services Project by the Broadcasting Authority of Zimbabwe (BAZ) working together with the Zimbabwe Broadcasting Corporation (ZBC) and Transmedia Corporation was commenced in 2015.

The project sought to migrate the country's television broadcasting from operating on an analogue technology to a digital technology in line with the requirement of the International Telecommunications Union's (ITU) digital broadcasting migration deadline of June 17, 2015. The project further sought to upgrade the country's radio transmission system which had become outdated and in poor state.

The ZimDigital project is aimed to bring about universal access to diverse and quality television and radio broadcasting services unlike the analogue broadcasting technology that has large signal loss, poor receiving effect and poor transmission and receiving of the television programs by the citizens. With the digital television broadcasting technology, the frequency resources can be effectively utilized, and several channels of television programs can be transmitted simultaneously and the quality of the digital television broadcasting programming is better. The digital television broadcasting programming can also provide various value-added services and has options of different channel programs for the subscribers, which can satisfy the needs of different audiences.

However, the implementation of the project had been ongoing since 2015 without being completed. The Government injected funds into the project amounting to US\$66.5 million and ZWL\$1.2 billion during the period February 2015 to April 2024 for a project that had been estimated to cost US\$175 million in the feasibility study report.

The audit was conducted in accordance with the International Standards of Supreme Audit Institutions (ISSAIs) with the audit objective being that of assessing the economic, efficiency and effectiveness in which the implementation of the ZimDigital project was being done.

The audit methods that were used to gather information from key project implementers, that is, BAZ, ZBC and Transmedia Corporation included; review of project documents, interviews with key project personnel, inspection of sites and administering questionnaires to members of the public.

### Summary of findings

There has been delays to digitalise the country's Television Broadcasting systems and services from operating on an analogue technology to operating on a digital technology as required by the ITU. The delays are due to the following;

- Ineffective Project Financing Modalities.
- Improper Utilisation of Project Resources.
- Delays in Delivery of Project Equipment and Carrying Out Installation Services.
- Ineffective Project Monitoring and Evaluation.
- Delayed Payments to Contractor.

The detailed findings are in Chapter 3 and below is the summary of the audit findings;

### 1. Digitalisation of the Country's Broadcasting Systems and Services

My audit noted that BAZ had not been able to spearhead the completion of the ZimDigital project. According to the ITU, the migration from analogue to digital television broadcasting should have commenced in 2006 and completed within ten (10) years by June 17, 2015. BAZ engaged a Contractor to carry out the following services and integrate them to provide broadcasting services;

- (i) source all digital broadcasting equipment necessary to deliver an integrated complete digital broadcasting system or solution;
- (ii) Install digital Broadcasting and Production Studios;
- (iii) Install a nationwide broadcasting transmission system incorporating a National Head End with conditional access and ensuring universal access for Digital Television Transmission;
- (iv) Install a nationwide FM Radio broadcasting transmission system;
- (v) Install major content production facilities in Harare, Bulawayo and Victoria Falls, and minor content production facilities in Gweru, Masvingo and Mutare as provided for in the Feasibility Study;
- (vi) Install the Regulator`s broadcast monitoring solution, and provide fifty-nine (59) Radio signal receivers for content monitoring;
- (vii) Install a Web Television system; and
- (viii) Supply compatible home receiver equipment for testing, and support any person that shall supply the compatible home receiver equipment by providing all the necessary information as instructed by BAZ.

The project to digitalise the television broadcasting systems and services in the country was commenced in February 2015 and its implementation has been ongoing for more than nine (9) years without being completed. According to the project contract agreement all works were to be completed on or before February 2016, upon which the Contractor was to surrender to BAZ a complete, compatible and integrated broadcasting system.

For the period 2015 up to April 30, 2024, audit noted that out of a total six (6) installation services that were needed to integrate the digital broadcasting system for the country, the project only managed to successfully complete and install the signal distribution network. In addition, five hundred (500) compatible home receiver equipment (Set top boxes) for systems testing were acquired.

On the other hand, the Broadcasting Transmission Network had only eighteen (18) (37%) out of forty-nine (49) sites digitalised, while five (23%) out of twenty-two (22) Broadcasting Transmission sites for FM Radio were fully upgraded.

Furthermore, only six (6) 32% production centres out of nineteen (19) that needed digital installation services at the national broadcaster Radio and Television Studios, ZBC were completed. The six (6) installed production centres at ZBC included two (2) Television Broadcasting Studios (that is, the Main Studio and Commercial Studio) and four (4) none studio production centres, that is, the Master Control Room, Playout System, Electronic News Gathering (ENG) Camera System and a Power system were also installed.

However, installation services on two (2) other infrastructures that is, the Content Production Facilities and Web Television System that needed to be integrated onto the digital broadcasting system were not done, while a Regulatory Monitoring system for use by BAZ, had a Centralised Broadcast Content Monitoring equipment fully installed at Head Office. The digitalisation of a Content Monitoring equipment was also done at seven (7) of BAZ's fifty-nine (59) district offices located around the country to monitor Community Radio stations that were launched in those areas. A Technical Monitoring System and a Frequency Planning Solution meant for frequency allocation, coverage, capacity, interference management, modulation techniques, and network optimization were yet to be installed at BAZ Head Office.

Due to the delays in completing the ZimDigital project, the country's television and radio broadcasting systems and services remained largely operating on the analogue broadcasting platform. Thus, poor reception of television and radio broadcasting services continued to be experienced in most parts of the country. The partial development of the digital platform was only functional in areas where digitalisation of broadcasting transmission sites was completed. However, only a few people who received test set top boxes (decoders) from the project could access digital broadcasting programming services.

My audit noted that BAZ delayed to complete the ZimDigital project mainly due to:

### **1.1 Ineffective Project Financing Modalities**

BAZ did not take the lead in raising the required funding of US\$125 million to complete the digitalisation project. According to the project's feasibility study report, funding of the project would have been borrowed from a Financial Institution, but this financing modality was not pursued. The possibility of funding the project through the sale of the Digital Dividend spectrum was explored but did not yield the desired results.

However, when funds were not raised from the Financial Institution and Digital Dividend Spectrum, the Government of Zimbabwe funded the project and injected US\$ 66.5 million and ZWL\$1.2 billion (US\$8.1 million) out of US\$125 million required to complete the project. The project had therefore a funding deficit of US\$50.4 million which resulted in termination of project contract in October 2020 after failure to settle dues to the contractor.

### **1.2 Improper Utilisation of Project Resources**

My analysis of project expenditure revealed that US\$6.1 million (8,2%) out of US\$74.6 million (US\$66.5 million plus US\$ 8.1 million) disbursed to the project was used on assets and activities which were not covered in the project contract. The amount of US\$60.4 million (81%) was used for the procurement of broadcasting equipment, technical installation services and compatible home receivers/Set Top Boxes. I was however not able to verify how ZWL\$1.2 billion (US\$8.1 million) (11% equivalent) disbursed during 2019 to 2021 was utilized. This was because there were no project financial statements produced since 2019. An inquiry with BAZ management revealed that the money was used on maintaining the installed project infrastructure.

I further noted from a review of the project implementation status report and interviews held with management that two (2) building properties were acquired from available funds without prioritising completion of the project's digital infrastructure. One (1) of the acquired properties was being used as BAZ Head Offices while the use of the other building could not be established at the time of audit.

A further analysis of audited 2015 to 2018 financial statements and interviews held with management revealed that a total of eight (8) project vehicles valued at US\$494 776 were also acquired from the project funds. There was no evidence submitted for audit to show that the vehicles had been budgeted for. The vehicles were registered in the Ministry's name and two (2) were converted to condition of service for senior management within the Ministry.

There was also an amount of US\$360 000 paid to a service provider in 2016 for purposes of formulating project awareness campaign strategies and conducting the awareness. Audit could not establish whether the funds were used for the intended benefit of the project as there was no documented evidence that the project awareness campaigns were conducted.

I further noted that though BAZ had initially acquired five hundred (500) Set Top Boxes (STBs) for purposes of systems testing, it further procured an additional fifty thousand (50 000) Set Top Boxes during the period 2022 to 2023 valued at US\$1.1 million though construction of the project infrastructure had not been completed.

### **1.3 Delays in Delivery of Project Equipment and Carrying Out Installation Services**

I noted that out of eight (8) services which Project Contractor was supposed to deliver to the project on or before February 2016 one (1), the supply of compatible home receiver equipment for testing was delivered in full. The other five (5) services listed below were partially done:

- Source all digital broadcasting equipment,
- Install digital Broadcasting and Production Studios,
- Install a nationwide broadcasting transmission,
- Install a nationwide FM Radio broadcasting transmission system and
- Install the Regulator`s broadcast monitoring solution.

Two (2) other services, that is, installation of major content production facilities and installation of a Web Television system were not done.

On the other hand, on termination of the contract at the end of October 2020 equipment worth US\$7.9 million had not been delivered and as at the time of concluding my audit on April 30, 2024 the equipment had still not been delivered.

### **1.4 Ineffective Project Monitoring and Evaluation**

My audit noted that the monitoring and evaluation of the project was not consistently conducted. The Ministry of Information, Publicity and Broadcasting Services is responsible for the oversight role in the implementation of the project. BAZ Board of Directors also provide project oversight through its review meetings on the project. However, there was no evidence that issues which were causing delays to the project implementation were addressed.

Though BAZ carried out the day to day administrative activities for the project, strategic plans for the period 2016 to 2020 did not include the project indicating that it was not prioritised. Inclusion of the project in the strategic plan would have assisted the management to prioritise project objectives and determine the manner in which to achieve those objectives.

### **1.5 Delayed Payments to Contractor**

I noted that BAZ failed to meet the payment terms to the Contractor as outlined under Article 10 of the Project Contract Agreement. A review of the project progress implementation report revealed that there had been a delay of over 5 years in effecting payments of outstanding arrears to the Contractor. As a result, the contract was terminated in October 2020. The outstanding payments to the Contractor amounted to US\$15.5 million for delivered offshore manufactured equipment, software, additional works and interest. No new works were done ever since except maintenance services on the developed infrastructure.

#### ***Delays to complete the ZimDigital project resulted in the following:***

- Failure by the citizens to access Digital TV and Radio broadcasting services particularly those in remote areas such as Siakobvu and Maphisa where the project objective was to enable the communities to access both TV and Radio services.
- Loss of qualified personnel to steer the project as evidenced by twenty-six (26) out of thirty-three (33) trained engineers who resigned from the project.
- Wastage of resources as acquired equipment is idle while there are also maintenance costs being incurred. Furthermore, the equipment is depreciating in value and will soon be obsolete due to changes in technology.
- Financial losses incurred on engaging a consultant to come up with project awareness campaign strategies. Also, financial losses were incurred on trainings of

broadcast content producers, purchased content producing equipment and production of the content. The costs could have been incurred after completion of the project.

- Insurance costs as manufacturers' warranties expired before equipment was put to use. The insurance costs could not be ascertained by audit as BAZ indicated that the work to ensure project equipment was yet to be started although the manufacturers' warranties on most equipment had expired.
- Possible reputational risk with ITU and other member states which may negatively affect future investment opportunities.
- Possible loss of potential market for local artists and content producers to supply their content.
- Wastage of the country's bandwidth/frequencies due to continued use of the analogue technology which is not efficient in frequency usage. The digital technology uses less frequencies. The completion of the digitalisation project could have assisted in frequency savings allowing more players to come aboard.
- Abandonment and vandalism of uncompleted installations at transmission sites, for example, the transmission tower erected at Siakobvu site had missing bolts. At Maphisa transmission site there were illegal gold panning activities being undertaken.
- Payment of annual lease rentals for the satellite facility without deriving full benefit from signal distribution service. According to audited 2015 to 2018 financial statements and 2022 to 2023 financial records availed to audit, an amount totaling US\$4,4 million was paid towards satellite services.
- Continued use of analogue transmitters interfere with the digital television services of other countries, and their digital services interfere with Zimbabwe analogue television services which are still in use.

## **2. RECOMMENDATIONS**

In order to address the delays affecting the completion of the ZimDigital project there is need to re-look at the whole project and come up with a robust plan to improve service delivery to the citizens of Zimbabwe. The following recommendations can be considered:

**2.1** BAZ should engage the Ministry of Finance, Economic Development and Investment Promotion for alternative sources of financing such as Public Private Partnerships (PPPs), Cooperating Partners, and Investors so that the project is completed. In addition, the cost to completion should be established so that the actual requirements are known.

**2.2** BAZ should enhance expenditure control so that available funds are used on key project areas and expenditure outside the scope of the project is not incurred.

Further, BAZ should follow up with the service provider on project awareness funds and also reinvest funds realised from sales of set boxes into the project.

**2.3** BAZ should rank project activities and embark on manageable activities at a time to make effective use of the available resources. At least it is better to concentrate on few sites and complete them rather than to spread and have non completed sites.

In addition, BAZ should find alternative source of equipment required for the outside broadcasting vehicles so that they can be put to use.

**2.4** To improve on project monitoring and evaluation activities, the following should be considered:

- The Ministry management responsible for the oversight of the project should come up with effective strategies such as project completion plan or Gantt chart that can serve as a road map for completion of the project.
- BAZ management should in future negotiate payment plans with Contractors in consultation with Ministry of Finance, Economic Development and Investment Promotion (MoFEDIP) to enable timeous payment of dues.
- The Ministry and BAZ management should liase with MoFEDIP to prioritise paying off the Contractor to avoid further interest charges.
- The Ministry and BAZ management should meet regularly to review progress and come up with mitigation measures where there are challenges.
- Engineering students at the various tertiary institutions under the supervision of qualified engineers and technicians can be of assistance to boost manpower levels in implementing the project.

## CHAPTER 1: INTRODUCTION

### 1.1 Background

The implementation of the Digitalisation of Broadcasting Systems and Services Project commenced in 2015 running under the name ZimDigital project. The project sought to develop and digitalise the country's television broadcasting services and systems to international standards by June 17, 2015 as was scheduled by the International Telecommunications Union (ITU). The project also sought to upgrade the country's radio transmission system which the Government of Zimbabwe noted had become aged and in poor state.

The ITU required member states to digitalise the television broadcasting and migrate from current analogue television broadcasting by June 17, 2015. The decision was reached in 2006 with the migration conditions set as follows: "Those countries that continue to operate analogue television transmission system after June 17, 2015 will do so provided that their analogue transmitters do not interfere with the digital television services of other countries, and their analogue television services do not claim protection from the digital services of other countries".

According to the ITU reports, by 2014, most countries in the world had completed the digital television broadcasting migration. Also, some member states in the Southern African Development Community (SADC) such as Namibia and Malawi successfully carried out the digital television migration process in 2012 and 2013 respectively.

However, for Zimbabwe the planning of the project commenced following the visit by the former President to the People's Republic of China in 2014 where the Government of Zimbabwe through the then Ministry of Finance and Economic Development, entered into a Memorandum of Understanding with Huawei Technologies on August 18, 2014 for a Feasibility Study to be carried out on a digital broadcasting migration for Zimbabwe including a funding solution. Thereafter, the Government assigned the Broadcasting Authority of Zimbabwe (BAZ) to spearhead the implementation of the digital broadcasting migration. BAZ is a Government wholly owned institution established and mandated by an Act of Parliament, the Broadcasting Services Act [*Chapter 12:06*] to regulate and develop the broadcasting industry in Zimbabwe.

Since 2015, BAZ working together with the Transmedia Corporation and Zimbabwe Broadcasting Corporation (ZBC) and other Government Ministries had been working on the project.

### 1.2 Motivation

The Value for Money audit on the ZimDigital project was motivated by the findings in the 2021 Auditor-General's financial audit report under the Ministry of Information, Publicity and Broadcasting Services. The financial audit findings had revealed that the Ministry had not been adequately monitoring and evaluating the implementation of the ZimDigital project despite having been disbursing funds to the project every year. Amounts totalling US\$66,5 million and ZWL\$1,2 billion were injected into the project during the period February 2015 to April 30, 2023.

In addition to the financial audit findings, the audit of the ZimDigital project was further motivated by negative reports that were being raised consistently in newspapers about the delay in the completion of the project. For instance, in the Herald newspaper of January 27, 2017, it was stated that 'progress of the digitalisation project was being doubted due to conflicting reports coming from the line Ministry and BAZ. The Ministry was indicating that

the project was 25% complete, whereas, BAZ was saying the project completion was at 34%.

Furthermore, the Chronicle newspaper article of November 10, 2021 further revealed that the Chairperson of the Committee for the Parliamentary Portfolio on Information, Media and Broadcasting Services highlighted that the project was moving at a slow pace since only eighteen (18) out of forty-eight (48), (38%) high definition transmitter sites for television, and five (5) out of twenty-five (25), (20%) radio transmission sites had been completed since the inception of the project in 2015.

It is against this background that I carried out a Value for Money Audit on the ZimDigital project to assess the efficiency and effectiveness of the implementation of the ZimDigital project.

### **1.3 Audit Design**

This part covers the audit objective, scope, questions and criteria, data collection methods and sampling.

#### **1.3.1 Audit Objective**

The audit objective was to assess the efficiency and effectiveness of the implementation of the ZimDigital project.

#### **1.3.2 Audit Scope**

The audit focused mainly on how the Broadcasting Authority of Zimbabwe (BAZ) working together with the Zimbabwe Broadcasting Corporation (ZBC) and Transmedia Corporation have implemented the project. Audit covered the period February 2015 to April 30, 2024.

#### **1.3.3 Audit Questions and Criteria**

The audit questions and criteria given below guided on the information to be collected to assess the implementation of the project.

### **Q1 Was implementation of the ZimDigital Project done in line with set standards?**

#### **Criteria**

According to the ZimDigital Project Contract Agreement, the project seeks to develop and digitalise all broadcasting services and systems in Zimbabwe, primarily, the broadcasting transmission network, Radio and Television Studios, the Signal Distribution network, a regulatory Monitoring system, Content Production facilities, a Web Television System and compatible home receiver equipment by June 17, 2015. However, all works shall be completed on or before February 2016, upon which the Contractor shall surrender to BAZ a complete, compatible and integrated broadcasting system.

### **Q2 Were adequate project financing measures put in place?**

#### **Criteria**

(1) According to Section 8.1 of the project feasibility study report, the Ministry of Information, Publicity and Broadcasting Services will apply for a loan to finance the project from a Financial Institution.

(2) Furthermore, according to the Project Contract Agreement with Huawei, the digital dividend spectrum to be realised from the project will also be sold to mobile operators by BAZ to fund the project.

### **Q3 Were available funds prioritised on project digital broadcasting infrastructure?**

#### **Criteria**

According to Section 45 (b) of the Public Finance Management (General) Regulations, 2019, an employee of a public entity shall to the extent that it is competent for the employee be responsible for the effective, efficient, economical and transparent use of the financial and other resources of the public entity.

### **Q4 Were project services provided and equipment fully delivered?**

#### **Criteria**

According to Article 4 of the Project Contract Agreement, BAZ engages Huawei International Private Limited for a Turnkey Digital Broadcasting system or solution for Zimbabwe, and the Contractor agrees to provide services, supply and install equipment.

### **Q5 Was project monitoring and evaluation effective to ensure efficient implementation and completion of the project.?**

#### **Criteria**

According to the ZimDigital Project Implementation Structure the Ministry of Information, Publicity and Broadcasting Services will oversee the implementation of the project.

#### **Q5.1 Was BAZ coming up with strategies to complete the project?**

#### **Criteria**

Section 22 (1) (b) and (c) of the Public Entities Corporate Governance Act [*Chapter 10:31*] states that the Board of every public entity shall draw up a strategic plan for which it is responsible, to determine the manner in which the entity is to achieve those objectives and priorities and strengthen the entity's management systems with a view to achieving those objectives and priorities.

### **Q6 Were payments to the Project Contractor paid on time?**

#### **Criteria**

According to Article 10 of the Project Contract Agreement, all payments to the Contractor-Huawei shall be made in United States Dollars by BAZ by Telegraphic Transfer and as per the agreed payment schedule.

#### **1.4 Audit Data Collection Methods**

I used the following data collection methods during the audit; documentary reviews, interviews and inspections.

##### **1.4.1 Documentary Review**

Documentary reviews were done at BAZ, ZBC, Transmedia Corporation Offices and transmission sites for the purposes of gathering information on status of project implementation and equipment deliveries. The reviewed documents and reasons for reviewing the documents are listed on Annexure A.

##### **1.4.2 Interviews**

Interviews were carried out with personnel at BAZ, ZBC and Transmedia Corporation involved with the project to corroborate documentary reviews and also obtain information on roles and responsibilities of key personnel to the project. Refer to Annexure B for the interviewed personnel and reasons for interviewing them.

I also interviewed 50 out of 100 people in Karoi who were issued with project testing STBs (decoders). The interviews were done through phoning and visiting the STBs receivers for purposes of confirming receipt, inspecting the STBs and gather if they were receiving DTV services. Of the fifty (50) interviews made, two (2) interviews were made with Traditional Chiefs, forty-one (41) with individuals and seven (7) with Government institutions. Table 1 below provides further details.

**Table 1: Number of Test Set Top Boxes Recipients Interviewed in Karoi.**

<b>Set Top Boxes Recipients</b>	<b>Number of Test Set Top Boxes Issued</b>	<b>Number of Interviewed Test Set Top Boxes Recipients</b>	<b>Number of Set Top Boxes Recipients Not Interviewed</b>
Individuals	73	41	32
Institutions	14	7	7
Chiefs	13	2	11
<b>Total</b>	<b>100</b>	<b>50</b>	<b>50</b>

*Source: Set Top Box Dispatch Forms.*

### **1.4.3 Inspections**

I inspected broadcasting transmission sites for the DTV installation and FM Radio transmitter upgrading works done by Huawei. The inspections were done at fifteen (15) out of forty-nine (49) total broadcasting transmission sites nationwide. The fifteen (15) inspected broadcasting transmission sites were in six (6) of the country's ten (10) provinces, that is, in Harare one (1), Mashonaland West three (3), Bulawayo one (1), Matebeleland South three (3), Manicaland four (4) and Masvingo provinces three (3).

I also inspected the ZimDigital Project works and equipment installed at ZBC Harare's Pockets Hill Studios and ZBC Bulawayo's Montrose Studios.

Project inspections were also done in Harare at Transmedia Corporation for the installed digital transmission equipment and at BAZ for installed digital broadcast content monitoring equipment and power supply supporting equipment.

### **1.4.4 Audit Sampling**

Out of the country's ten (10) provinces, six (6) provinces namely, Harare, Mashonaland West, Bulawayo, Matebeleland South, Manicaland and Masvingo were selected and visited to assess and verify the extent to which project sites had been developed.

Harare was selected because it possesses the largest population in the country which uses television and radio sets. The province is the only one that has both a broadcasting transmission Site and two (2) Broadcasting Studio sites for the national broadcaster.

Mashonaland West province was selected because it had one of its six (6) Signal Transmission Sites situated in Karoi fully digitalized with some people and institutions in the area issued test set top boxes/decoders for testing the functionality of the installed digital system and services.

Bulawayo was selected because other than Harare province, it has both a broadcasting transmission Site and another Broadcasting Studio site for the national broadcaster. Bulawayo province is also second to Harare in terms of the population that uses television and radio sets.

Matebeleland South province was selected on the basis that besides being closer to Bulawayo for economic reason for the audit, the province is also located near the country's borders with South-Africa and Botswana. The television and radio broadcasting signals from

these countries may easily interfere or be accessed by the people in the province. Thus, dissociating the province from national information and development.

On the other hand, Manicaland province was selected as it had the largest number of broadcasting transmission sites that were digitalised. Of the total six (6) broadcasting transmission sites in the province, three (3) of them had been developed and completed, two (2) were partially developed while one (1) was still to be developed. The province had also two (2) broadcasting transmission sites whose FM Radio transmission system were upgraded. A total of five (5) out of twenty-two (22) required broadcasting transmission sites across the whole country had the FM Radio transmission system upgraded.

Whereas, Masvingo province was selected because the project's transmission sites status report had shown that the province had the least number of completed broadcasting transmission sites in Chiredzi, yet it had the largest number of broadcasting transmission sites eight (8) which were to be developed and digitalized. Thus, I needed to assess and evaluate the extent of project development that had taken place in the province. Refer to Table 2 for areas visited.

**Table 2: Provinces Covered by Audit.**

<b>Province</b>	<b>Project Sites in the Province</b>	<b>Project Sites Covered in the Province</b>
Harare	1 Broadcasting Transmission Site and 2 National Broadcasting Station Sites	1 Broadcasting Transmission Site and 1 National Broadcasting Station Site
Mashonaland West	6 Broadcasting Transmission Sites	3 Broadcasting Transmission Sites
Bulawayo	1 Broadcasting Transmission Site and 1 National Broadcasting Station Site	1 Broadcasting Transmission Site and 1 National Broadcasting Station Site
Matebeleland South	6 Broadcasting Transmission Sites	3 Broadcasting Transmission Sites
Manicaland	6 Broadcasting Transmission Sites	4 Broadcasting Transmission Sites
Masvingo	8 Broadcasting Transmission Sites	1 Broadcasting Transmission Sites

*Source: Sites Visited During the Audit.*

## CHAPTER 2: SYSTEM DESCRIPTION

This chapter describes roles and responsibilities of ZimDigital project key players and key project processes and activities.

### 2.1 ROLES AND RESPONSIBILITIES OF KEY PROJECT PLAYERS

Below are roles and responsibilities of key project players:

#### 2.1.1 Ministry of Information, Publicity and Broadcasting Services

According to the project implementation contract and interviews held with the Ministry's Accounting Officer, the Ministry's roles and responsibilities to the ZimDigital project were that of oversight, supervising and giving project direction.

#### 2.1.2 Broadcasting Authority of Zimbabwe (BAZ)

According to the Project Contract Agreement responsibility matrix, BAZ should;

- provide sites on which project equipment would be installed,
- prepare the sites,
- conduct acceptance testing, and
- make project payments.

There are six (6) BAZ divisions to perform the following project roles and responsibilities;

##### 2.1.2.1 Technical Services Division

- Set technical standards for project implementation in line with ITU and local standards,
- Ensure that project works were done according to agreed contract terms,
- Take part in project Technical Committee meetings comprised of members from ZBC and Transmedia Corporation,
- Monitor implementation of the project as a whole,
- Inform and advise the Chief Executives for BAZ, Transmedia and ZBC on any conflicts regarding technical issues for the project,
- Train under graduate engineers recruited for the project,
- Approve any technical changes to the project,
- Conduct acceptance tests on project works and issue acceptance test certificates and
- Monitor progress of project and produces reports.

##### 2.1.2.2 Broadcasting Content Compliance Division

- Prepare broadcast content for the project through working with independent content producers,
- Capacitating independent broadcast content producers engaged by the project through trainings and funding, and
- Handling project broadcast content creation issues through working together with representatives from Transmedia, ZBC, Zimbabwe Film and Television of Southern Africa (ZIFTSSA) and the line Ministry.

##### 2.1.2.3 Finance, Human Resources and Administration Division

- Project budget preparation,
- Project financial management and maintaining the financial records,
- Making project payments,
- Preparation of Project financial statements, and
- Maintaining Project asset registers.

#### **2.1.2.4 Procurement Unit**

- Procure project equipment and accessories.

#### **2.1.2.5 Legal and Licensing Division**

- Provide project legal services, particularly during discussions with project contractors, and
- Give legal advice on project implementation.

#### **2.1.2.6 Internal Audit**

- Evaluate internal control systems for the project and
- Monitoring project implementation through carrying out audits.

#### **2.1.3 Transmedia Corporation**

According to management of the Transmedia Corporation, The Transmedia Corporation assists the project in developing the digital transmission infrastructure by providing the following;

- Technical input,
- Signal site preparation,
- Supervision of the Contractor, and
- Conducting acceptance tests on installed project equipment.

#### **2.1.4 Zimbabwe Broadcasting Corporation of Zimbabwe**

According to interviews held with the ZBC Technical Director, ZBC's project roles are;

- Technical input with particular focus on Digital TV and FM Radio studio setups,
- Coming up with scope of works for the studios,
- Supervising installation of project equipment in studios by the contractor, and
- Participating in acceptance testing of installed project in accordance with broadcasting standards.

#### **2.1.5 Huawei International Private Limited**

The Project Contract Agreement's Responsibility Matrix states that Huawei International Private Limited shall supply and install project equipment and train graduate Engineers.

#### **2.1.6 Rural Infrastructure Development Agency (RIDA)**

BAZ contracted RIDA (formerly known as DDF) to construct access roads to new transmission sites in view of the responsibilities it was assigned in the Project Contract Agreement's Annexure F on Responsibility Matrix.

#### **2.1.7 Zimbabwe Electricity Transmission and Distribution Company (ZETDC)**

BAZ contracted ZETDC to provide power connection to new transmission sites and upgrade power on the existing transmission sites in view of the responsibilities it was assigned in the Project Contract Agreement's Annexure F on Responsibility Matrix.

#### **2.1.8 ARUP International Company**

BAZ contracted ARUP to carry out the tasks below on its behalf in view of the responsibilities it was assigned to in the Project Contract Agreement's Annexure F on Responsibility Matrix;

- Approval of transmission tower designs,
- Approval of transmission site foundations, and
- Approval of all civil works done at project sites.

#### **2.1.9 EUTELSAT**

According to BAZ management, EUTELSAT was responsible for leasing satellite facility for distribution of digital television and radio signal to the transmitter sites.

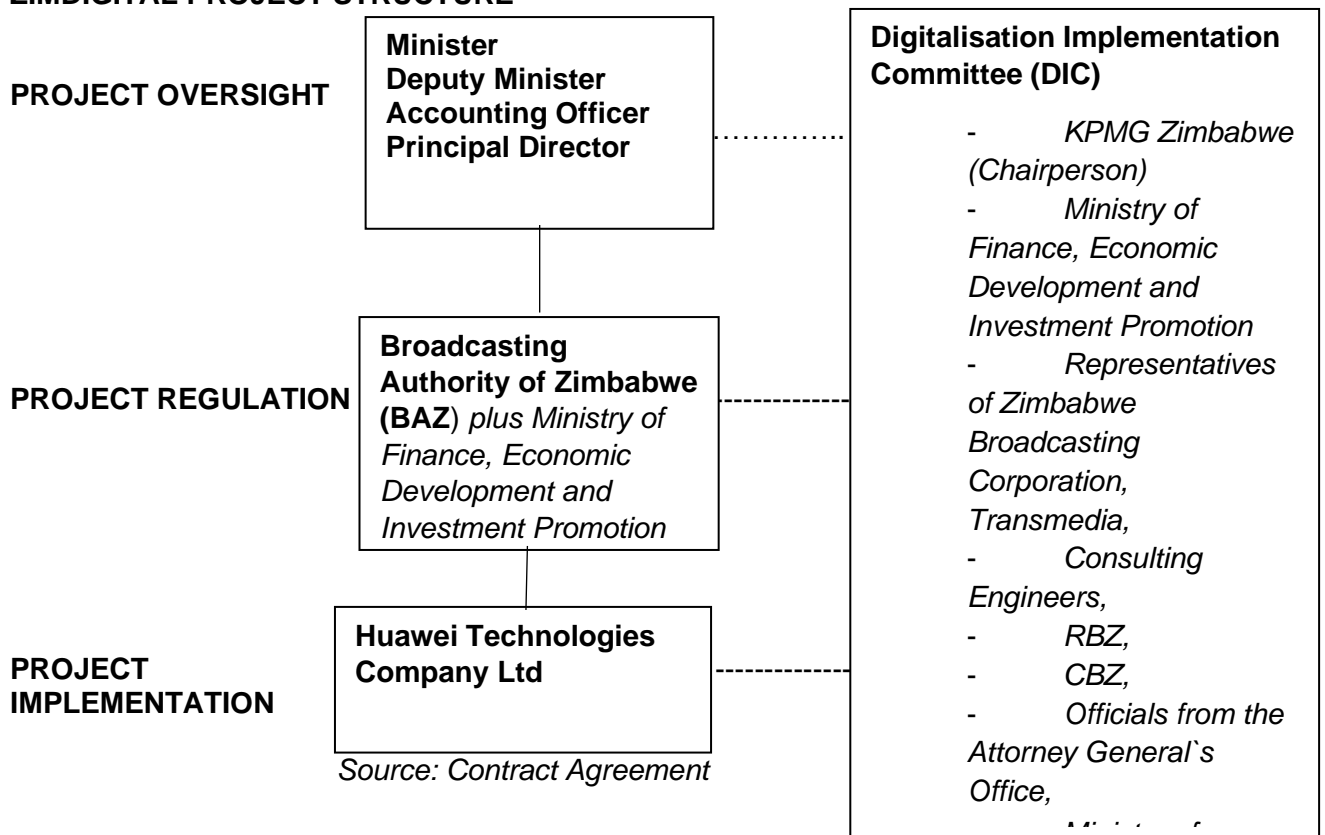
## 2.2 The ZimDigital Project Implementation Structure

The project’s implementation structure was headed by an Oversight team comprised of the Minister, Deputy Minister, Accounting Officer and Principal Director in the Ministry of Information Publicity and Broadcasting Services.

Below the Project Oversight team is the Project Regulation team made up of BAZ and the then Ministry of Finance, Economic Development. The Project Implementer/Contractor, Huawei International Private Limited directly reports to BAZ.

There was also a Digitalisation Implementation Committee whose purpose was to provide advisory services to the Oversight team, Regulation team and project implementer, Huawei International Private Limited. Refer to the ZimDigital Project Implementation Structure below for further details.

### ZIMDIGITAL PROJECT STRUCTURE



## 2.3 ZimDigital Project Funding

The ZimDigital project was funded by the Government of Zimbabwe. During the period 2015 to April 2024, a total amount of US\$74.6 million had been injected into the project. Refer to Table 3 below.

**Table 3: The ZimDigital Project Funding for the Period 2015 to 2023.**

Year	Government Disbursements		Interbank/ Mid-Rate at December 31 US\$ = ZWL\$	US\$ Equivalent	Annual Disbursement s in US\$
	US\$	ZWL\$			
2015	32 752 218	-	-	-	32 752 218
2016	16 207 596	-	-	-	16 207 596
2017	5 000 000	-	-	-	5 000 000
2018	10 582 000	-	-	-	10 582 000
2019	-	35 738 000	1:16.7734	2 130 635	2 130 635
2020	-	199 400 000	1:81.7866	2 438 052	2 438 052
2021	-	300 778 000	1:108.666	2 767 913	2 767 913
2022	2 000 000	506 000 000	1:684.3399	739 399	2 739 399
2023	-	200 000 000	1:6104.7226	32 761	32 761
<b>Total</b>	<b>US\$66 541 814</b>	<b>ZWL\$1 241 916 000</b>		<b>US\$8 108 760</b>	<b>US\$74 650 574</b>

Source: Project Funds Disbursements Records.

## 2.4 DESCRIPTION OF KEY PROJECT ACTIVITIES

### 2.4.1 Digital Broadcasting Migration Project Objective

According to Article 1 of the Project Contract Agreement, the Digital Broadcasting Migration project seeks to develop and digitalise all broadcasting services and systems in Zimbabwe. These are the broadcasting transmission network, Radio and Television Studios, the Signal Distribution network, a regulatory Monitoring system, Content Production facilities, a Web Television System and compatible home receiver equipment. This will help to achieve universal access and diverse broadcasting services by Zimbabweans to realize the ITU digital broadcasting migration deadline of June 17, 2015.

#### 2.4.1.1 Funding and Utilisation of Project Resources

According to section 8.1 of the feasibility study report, funding for project assets estimated to cost US\$137 million shall come from a loan that the Ministry of Information, Media and Broadcasting Services shall borrow from a Financial Institution with the then Ministry of Finance and Economic Development being the guarantor. The period of the loan shall be twenty (20) years (including a grace period of five (5) years), with an annual interest rate of not more than 2%. After the grace period, the Ministry of Information, Media and Broadcasting Services shall repay the loan every half year within fifteen (15) years, with March 21 and September 21 of each year being the repayment dates.

According to Annexure L of the Project Contract Agreement, the estimated project cost of US\$137 million was reduced to US\$125 million at the implementation stage broken down into project equipment (US\$94 million) and project services (US\$31 million). Refer to Annexure C for further details.

Also, according to the preamble of the Project Contract Agreement with Huawei, funding for the project would also come from sale of US\$200 million worth of digital dividend spectrum to be realized from the project.

#### 2.4.1.2 Delivery of Project Services and Installation of Equipment

According to Article 4 of the Project Contract Agreement, BAZ was to engage Huawei International Private Limited for a Turnkey Digital Broadcasting system or solution for Zimbabwe, and the Contractor agrees to provide the following service;

- (i) Source all digital broadcasting equipment necessary to deliver an integrated complete digital broadcasting system or solution; Install digital Broadcasting and Production Studios;
- (ii) Install a nationwide broadcasting transmission system incorporating a National Head End with conditional access and ensuring universal access for Digital Television Transmission;
- (iii) Integrate all of the above to provide a broadcasting service to specified standards;
- (iv) Install a nationwide FM Radio broadcasting transmission system;
- (v) Install major content production facilities in Harare, Bulawayo and Victoria Falls, and minor content production facilities in Gweru, Masvingo and Mutare as provided for in the Feasibility Study;
- (vi) Install the Regulator`s broadcast monitoring solution, and provide fifty-nine (59) Radio signal receivers for content monitoring;
- (vii) Install a Web Television system; and
- (viii) Supply compatible home receiver equipment for testing, and support any person that shall supply the compatible home receiver equipment by providing all the necessary information as instructed by BAZ.

The digitalisation of the ZBC`s broadcasting systems and services will involve transformation of the Television studio equipment including the outdoor recording and broadcasting equipment vehicles. A WebTV will also be developed to provide users in Harare and Bulawayo with video access solutions through use of computers and other intelligent terminals. There will also be a content hub or digital program production system to be developed and will include digital program recording and production equipment to provide the local private TV stations and overseas TV stations with digital program production leasing services.

Whereas, at Transmedia Corporation, the digitalisation will involve development and construction of a complete set of Digital Terrestrial TV (DTT) network that include construction of Head-End in Harare and digital transformation of the existing twenty-four (24) TV broadcasting signal transmission sites, and construction of another twenty-four (24) new signal transmission sites so as to provide digital TV broadcasting services to more than 80% of the population in the country.

The digitalisation at BAZ will involve installation of a Regulatory Monitoring System comprised of Technical Monitoring System, a Frequency Planning Solution and a Video and Audio Content Monitoring System.

In homes, a small gadget called a Set Top Box (STB) will be connected to television sets which are still analogue since digital technology is not directly compatible with analogue television sets still found in most homes.

#### **2.4.1.3 Payments to Project Contractor**

According to Article 10 of the Project Contract Agreement, all payments to the Contractor-Huawei shall be made in United States Dollars by BAZ through Telegraphic Transfer. The payments shall be for equipment supplied and services rendered. An advance payment of 10% of the total contract price amounting to US\$12.5 million shall be payable within seven (7) days of receipt of an invoice by BAZ from the Contractor.

The project contract amount of US\$125 million was to be settled as given in Table 4 below.

**Table 4: Agreed Payment Schedule for the Project Contractor.**

<b>Payment Timelines</b>	<b>Amount in Millions (US\$)</b>
27/2/2015	12.5
15/3/2015	4
1/4/2015	5.5
1/5/2015	25
15/6/2015	29.4
1/7/2015	3.5
1/8/2015	3.4
1/9/2015	4.4
1/10/2015	14.3
1/11/2015	2.8
12/12/2015	2.8
1/1/2016	1.1
1/2/2016	1.3
1/8/2016	15
<b>Total</b>	<b>US\$125</b>

*Source: Project Contract Agreement Document.*

Any delay by over one month by BAZ in effecting payment for services or works done after certification, the Contractor upon written notification of demand to BAZ, would claim liquidated damages amounting to the sum of 0.03% of the price of the work or services completed calculated on a daily basis.

## CHAPTER 3: FINDINGS

This chapter details my audit findings on implementation of the ZimDigital Project.

### 3.1 Delays to Digitalise the Country’s Broadcasting Systems and Services

According to Article 1 of the Project Contract Agreement, the ZimDigital Project seeks to develop and digitalise all broadcasting services and systems in Zimbabwe. The seven (7) broadcasting services and systems to be developed are highlighted in Table 5 below. The purpose was to achieve universal access to diverse broadcasting services by Zimbabweans. This was to be realized within the ITU digital broadcasting migration deadline of June 17, 2015.

My review of the ZimDigital project implementation reports dated September 6, 2022 revealed that implementation of the ZimDigital Project which was commenced in February 2015 was not concluded by the ITU deadline of June 17, 2015. At the time of my audit on April 30, 2024, nine (9) years later, the project implementation had not been concluded as some activities were still outstanding. Out of the seven (7) systems and services to be developed and installed only two (2), the signal distribution network and compatible home receiver equipment had been completed by February 2016.

Table 5 below shows the project components and the progress made as at April 30, 2024. The Broadcasting Transmission Network system had 37% of the Digital Television Transmission Sites and 23% for Upgraded FM Radio Transmission Sites digitalised and upgraded respectively. With regards to Television Studios, forty (40%) were digitalised while there was no much progress made on Radio Studios except for the civil works or renovation works. The Regulatory Monitoring System had 33% of required components completed, while the Content Production Facilities and Web Television System had not been installed at the time of audit.

**Table 5: Status of Digitalisation of Broadcasting Services and Systems as at April 30, 2024.**

	<b>Broadcasting Services and Systems to be Digitalised</b>	<b>Percentage (%) Completion by June 17, 2015</b>	<b>Percentage (%) Completion by April 30, 2024</b>
1	The Signal Distribution Network	0%	100%
2	The Broadcasting Transmission Network	0%	37% of the Digital Television Transmission Sites 23% FM Radio Transmission Sites Upgraded
3	Radio and Television Studios	0%	40% Digital Television Studios 0% Digital Radio Studios
4	A Regulatory Monitoring System	0%	33% of Required Components
5	Content Production Facilities	0%	0%
6	A Web Television System	0%	0%
7	Compatible Home Receiver Equipment	0%	100%

*Source: Implementation Status Reports.*

My audit attributed the delays to complete the ZimDigital project to:

- **Ineffective Project Financing Modalities.**
- **Improper Utilisation of Project Resources.**
- **Delays in Delivery of Project Equipment and Carrying Out Installation Services.**
- **Ineffective Project Monitoring and Evaluation.**
- **Delay in Payments to Project Contractor.**

### **3.1.1 Ineffective Project Financing Modalities**

BAZ did not manage to raise the required funding of \$125 million to complete the digitalisation project. According to the project's feasibility study report funding of the project would have been borrowed from a Financial Institution but, this financing modality was not pursued. The Government of Zimbabwe however, funded the project and had since injected US\$ 66.5 million and ZWL\$1.2 billion (US\$8.1 million) out of US\$175 million required to complete the project.

Also, according to the preamble of the Project Contract Agreement with Huawei, funding for the project would also come from sale of the digital dividend spectrum which would be realized from the project. Digital dividend spectrum are excess broadcasting airwaves that are realised from the process of changing from an analogue broadcasting technology to a digital technology. A review of board minutes dated February 11, 2020 revealed that BAZ tried to sell the digital dividend spectrum to NetOne, the mobile operator in 2015 before implementation of the project but the sale did not materialize after an amount of US\$200 million was deposited into BAZ's bank account on December 16, 2014 by the Reserve Bank of Zimbabwe on behalf of NetOne. The deposited amount was a loan by the Reserve Bank of Zimbabwe (RBZ) to Netone to purchase the digital spectrum from BAZ. The transaction was however cancelled on the same day by the RBZ due to the fact that NetOne had failed to honour terms of the loan.

### **Management Response**

**The Government of Zimbabwe continues to explore funding options. Currently the Government is pursuing the sale of the digital dividend spectrum as well as Public Private Partnerships.**

### **3.1.2 Improper Utilisation of Project Resources**

My analysis of project expenditure revealed that US\$6.1 million (8,2%) out of US\$74.6 million disbursed to the project was used on assets and activities which were not covered in the project contract. While US\$60.4 million (81%) was used for the procurement of broadcasting equipment, technical installation services and compatible home receivers/Set Top Boxes. I was not able to verify how ZWL\$1.2 billion (11%) US\$8.1 million equivalent disbursed during 2019 to 2023 was utilized. An inquiry with BAZ management revealed that the money was used for maintaining the installed project infrastructure. Refer to Table 6 below for details.

**Table 6: Analysis of Project Expenditure during the Period 2015 to April 30, 2024.**

Year	Total Expenditure as per financial records	Project Expenditure	Expenditure not covered by the Contract
	US\$	US\$	US\$
2015	47 378 612	46 275 937	1 102 675
2016	6 341 798	4 069 736	2 272 062
2017	8 253 562	6 869 662	1 383 900
2018	2 567 842	1 280 231	1 287 611
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	1 883 002	1 883 002	-
2023	41 399	41 399	-
2024 (April 30)	75 599	-	75 599
<b>Total</b>	<b>US\$66 541 814</b>	<b>US\$60 419 967</b>	<b>US\$6 121 847</b>

Source: 2015 to April 30, 2024 Project Financial Records and Disbursement Schedules.

I also noted from a review of the project implementation status report for September 2022 and interviews held with BAZ Internal Audit manager that two (2) properties and eight (8) vehicles were acquired from the project funds. The value of the vehicles was US\$494 776 and the cost for the properties were BAZ offices US\$440 000 and Kingstone House US\$ 1 310 000. One (1) of the properties was to be used by BAZ as offices and the other property used for storage of project equipment and sale of set top boxes. There was no evidence on the budget for the vehicles and properties submitted for audit. The vehicles were registered in the Ministry's name and two (2) were converted to condition of service vehicles for senior management within the Ministry.

Furthermore, audit noted from review of project financial statements that US\$1.9 million was used on broadcast content activities and equipment which were not part of the project scope and were also done before completion of the project infrastructure. The broadcast content activities were comprised of training of content producers, payment of their salaries and purchase of content production equipment.

I also did not get evidence on how an amount of US\$360 000 intended for the project public awareness was utilised. The amount was paid to a Supplier in 2016 who had been hired by the Ministry for purposes of formulating project awareness campaign strategies and conducting the awareness campaigns to the Zimbabwean public. However, there was no documented evidence that the project awareness campaign exercises were held.

I further noted that Digital Satellite News Gathering (DSNG) Vans and Digital Outside Broadcasting (DOB) Truck-Horse which were delivered on July 26, 2017 and November 12, 2018 respectively did not have the outside broadcasting equipment so that they could be put to use. The vehicles had been idle for seven (7) and six (6) years respectively. The purchase prices for the Vans could not be ascertained at the time of audit but their values had been depreciating due to the vagaries of weather. An inquiry with ZBC management on delivery of the vehicle equipment revealed that the Contractor was yet to deliver the remaining equipment and the trailer. However, there was no documented evidence as to whether or not delivery of the Outside Broadcasting Vans and equipment had been paid for in full prior to delivery. See Pictures 1 and 2 below for delivered vehicles without the broadcasting equipment.

**Picture 1 Digital Satellite News Gathering Vans.**



Source: Picture 1 taken by OAG.

**Picture 2 Digital Outside Broadcasting Truck-Horse.**



Source: Picture 2 taken by OAG.

Improper utilisation of project resources was also witnessed on distribution of five hundred (500) Set Top Boxes (Decoders) provided by the Contractor for testing of the digital system by local residents in completed areas. One hundred and ninety-three (193) Set Top Boxes were not accounted for. Refer to Table 7 for further details on the distribution of the Set Top Boxes.

**Table 7: Distribution of ZimDigital Project Tests Set Top Boxes for Project Testing.**

Recipient	Purpose	Date	Quantity
ZBC	ZBC News Channel Pilot Test	23/08/19	50
Transmedia	Staff distribution	-	60
ZIFM	Signal Test	03/03/22	1
3KTV	Signal Test	02/03/22	6
Glendale Branch	Monitor ZBC signal	09/03/22	1
DTT Binga Launch	Project launch in Binga	21/05/22	70
Transmedia CEO and Driver	-	05/02/21	3
ZANU PF	Campaign live coverage	11/02/21	4
Binga Chiefs	Deployment to Binga Chiefs.	09/04/21	2
Former Chief Operations Officer	-	05/05/21	1
3KTV	Test unit	28/07/21	1
Karoi DTV Launch	DTV launch Demo installations	09/4/21	100
ZBC Outside Broadcasting	Outside Broadcasting Van Off air monitoring	04/09/19	2
Deputy Minister	-	02/11/21	2
ZTN	Zimpapers Chair	04/05/21	2
BAZ	-	20/11/21	2
<b>Total</b>			<b>307</b>

Source: Project Equipment Dispatch Forms.

A follow up on twenty-seven (27) people issued with the Tests Set Top Boxes (STB) in Karoi revealed that only fourteen (14) had received the STBs. Whilst the other thirteen (13) indicated that though their names had been listed on the STBs distribution records submitted for audit by Transmedia Corporation, they had not received the STBs.

I further noted that BAZ procured other fifty thousand 50 000 Set Top Boxes during the period 2022 and 2023 amounting to US\$1.1 million though construction of the project infrastructure had not been completed.

### Management Response

The audit observations are noted. Below is some information on disbursements and utilization for the period 2019 to 2024.

Year	Purpose	Amount ZWL\$
2019	Project infrastructure	35 738
2020	Project infrastructure	199 778
2021	ZBC Studio equipment	76 000 000
2021	Project management costs	83 976 808

The US\$2m disbursed in 2022 was used as follows:

Purpose	Amount US\$
Signal Distribution Lease	350 000
Headend Upgrade	558 002
Set Top Boxes and accessories	1 016 399
Project Management Costs	75 598

The ZWL\$200million disbursed in 2022 was used as follows:

Purpose	Amount ZWL\$
Broadcasting Equipment	57 083 598
Project Laptops	8 919 000
Project Management Costs	133 997 402

Disbursements for 2023 and 2024 were used for signal distribution which was Euro 665 457 and US\$ 695 765 respectively. With regards the two (2) properties, the BAZ offices cost was US\$440 000 and Kingstone House cost was US\$1 310 000. BAZ contributed US\$655 000 towards the purchase price for the Kingstone House. The other property, being Kingstone Building, is not subject to the Huawei contract. The properties were acquired to capacitate BAZ in the execution of its regulatory activities e.g., establishing a call centre for regulatory queries.

The two properties were purchased under the instruction of the parent Ministry. All funds for the Digitalization Project are utilized in accordance with instructions which may be received by BAZ from the parent Ministry who represent Government interest. The position, therefore, is that just like any project work the funds were utilized in the manner that the Ministry had instructed. BAZ has an obligation to comply with any directions of the Ministry.

The transfer of the vehicles to Ministry personnel (Senior Management) was approved by the Public Service Commission and the Ministry of Transport and Infrastructure Development.

The audit observation on broadcast content activities and equipment is noted. The Ministry embarked on a program to fund content producers to ensure that when Digital Television services are launched the country has a pool of capacitated independent TV producers who are capacitated to produce content.

The service provider for purposes of project public awareness campaign was engaged through the Ministry to come up with a concept, strategy and to execute an awareness campaign around the Digitalization Project. However, as BAZ, we had held several meetings with the service provider to review its costs and resolve the issue without success since there was no clear explanation on how the paid figure was arrived at. There was only an engagement letter that did not specify clear deliverables and management suggested that a proper contract needed to be drafted along the same lines as the Digitalization Project contract considering that the Project had been making use of some of the works done by the same service provider. However, before the contract could be concluded, a request was made by the Ministry for a part payment to be made of US\$360 000 on the basis of the proposed percentages of 10% to 20% of US\$ 1.2 million total charge for the project public awareness campaign.

The audit observation on vans and truck horse is noted. The Contractor had been instructed to procure vehicles specifically from Germany. After the vehicles were transported from Germany to China for installation of the equipment, payment for the equipment became a challenge. China, however, has a time limit on the period which a right-hand drive vehicle may stay in China. That period lapsed before payment for the equipment could be made thus prompting the Contractor to just ship the vehicles to Zimbabwe without the equipment.

The reconciliation of the set top boxes is as follows:

Total units dispatched .....	449
Units currently in stock.....	45
Headend Monitoring .....	6
TOTAL.....	500

The 50 000 STBs were procured by the GoZ for distribution in the areas where DTT services are now available as part of the transitional process.

### **Evaluation of Management Response**

*The evidence for authority to procure properties from the Ministry was not availed for audit.*

#### **3.1.3 Delays in Delivery of Project Equipment and Carrying Out Installation Services**

According to Article 4 of the Project Contract Agreement, the Contractor agreed to provide the following services:

- (i) Source all digital broadcasting equipment,
- (ii) Install digital Broadcasting and Production Studios,
- (iii) Install a nationwide broadcasting transmission,
- (iv) Install a nationwide FM Radio broadcasting transmission system,
- (v) Install the Regulator`s broadcast monitoring solution,
- (vi) Install major content production facilities,
- (vii) Install a Web Television system and
- (viii) Supply compatible home receiver equipment for testing.

I noted that out of the eight (8) services listed above which the contractor was supposed to deliver to the project on or before February 2016 only one (1), the supply of compatible home receiver equipment for testing was delivered in full. The first five (5) were partially

done and two (2) other services, that is, installation of major content production facilities and installation of a Web Television system were not done.

A review of Termination of Contract Agreement document revealed that US\$37.8 million out of US\$94 million worth of offshore equipment required for the project was manufactured. While offshore equipment worth of US\$56.2 million was not manufactured. However, of the manufactured US\$37.8 worth of offshore equipment and software only US\$29.9 million worth of the equipment was delivered. The balance of US\$7.9 million had not been delivered as at the time of termination of the contract in October 2020 and was still not delivered as at the time of audit on April 30, 2024. BAZ was however charged US\$30.5 million for US\$37.8 worth of offshore equipment and software. BAZ paid US\$30.2 million with US\$0.3 million outstanding as at the time of termination of the contract agreement.

My analysis of the project implementation reports and inspection of fourteen (14) project sites in the country's five (5) provinces revealed that installations of digital equipment at the project sites had not been properly organised as many project sites were put under construction at the same time after commencement of the project in 2015.

Out of a total of forty-nine (49) targeted Digital Broadcasting Transmission Sites agreed to be installed with digital equipment nationwide, thirty-six (36) of them were put under construction during the period 2016 to February 2023. Of the thirty-six (36) sites eighteen (18) were completed. For the uncompleted eighteen (18), fifteen (15) had a Transmission Broadcasting tower structure completed and three (3) had foundation structure for Transmission Broadcasting tower completed. The project had upgraded only five (5) FM Radio Signal Transmission Sites out of twenty-two (22) as at April 30, 2024. Refer to Table 8.

**Table 8: Status of Digital Broadcasting Transmission Sites in Provinces.**

Province	Digital Television Signal Transmission Sites			Upgraded FM Radio Signal Transmission Sites		
	Target	Actual	Variance	Target	Actual	Variance
Harare	1	1	0	1	0	1
Bulawayo	1	1	0	1	0	1
Mashonaland West	6	2	4	4	0	4
Mashonaland East	5	3	2	2	1	1
Mashonaland Central	3	0	3	1	0	1
Manicaland	6	4	2	3	2	1
Masvingo	8	1	7	2	0	2
Matebeleland South	6	1	5	3	0	3
Matebeleland North	7	3	4	3	2	1
Midlands	6	2	4	2	0	2
<b>Total</b>	<b>49</b>	<b>18</b>	<b>31</b>	<b>22</b>	<b>5</b>	<b>17</b>

Source: Project Transmission Sites Status Update Report.

I further made an inspection of fourteen (14) Digital Broadcasting Transmission Sites out of the thirty-six (36) to verify the levels of project completion in the following provinces; Mashonaland West three (3), Bulawayo one (1), Matebeleland South three (3), Manicaland four (4) and Masvingo three (3).

Of the fourteen (14) sites visited, six (6) sites had the digital television system completed. The other five (5) sites were at digital tower structure level, two (2) were at foundation level and one (1) had undergone assessment level with construction works not yet commenced. Refer to Annexure D for further details on sites inspected.

Also, in line with the project scope of works/installation services, I noted that only six (6) out of a total of nineteen (19) TV Broadcasting Production Centers at ZBC had been fully digitalized. The six (6) digitalized TV production centres had been completed at ZBC Pockets Hill Station in Harare while that of ZBC Montrose Station in Bulawayo had not yet been digitalized. The seven (7) other TV Broadcasting Production Centers were only renovated and awaited installation of equipment while the remaining six (6) were still to be digitalized. These included a Content Hub System composed of big and small studios, post production stations, Media Asset Management (MAM) System, ZBC News Studio, 8-camera Flyaway, Non-Linear Editing (NLE) workstations and delivery of a 4-camera Outside Broadcasting van. Refer to Annexure E.

Furthermore, I noted that central Broadcast Content Monitoring equipment and power backup system were installed at BAZ Head Office. This was in line with the project scope of works outlined in the project contract agreement. The content monitoring equipment was also installed at seven (7) out of fifty-nine (59) district offices in Kariba, Masvingo, Mutare, Gweru, Bulawayo, Victoria Falls and Zvishavane. The outstanding installations at BAZ were a Regulatory Technical Monitoring System and a Frequency Planning Solution.

## **Management Response**

**The audit observations are noted.**

**The scope of the project was to cover the whole country for the purpose of universal access to information and was expected to be completed within the agreed timeframe, hence the implementation strategy was to target all the identified sites. The delay in completion of some of the sites and other systems was mainly due to funding constraints.**

### **3.1.4 Ineffective Project Monitoring and Evaluation**

The Ministry of Information, Publicity and Broadcasting Services provided the oversight role on project implementation as per the ZimDigital Project Implementation Structure.

Audit noted from review of minutes of meetings for the period under review held between the line Ministry and BAZ management that issues and challenges affecting progress of the project were discussed throughout the period of the project. The issues discussed were centered mainly on sourcing more Project funding and monitoring mechanisms.

Also, BAZ Board meetings for the period under review discussed project challenges but there was no proper trail that resolutions made were being followed up and resolved. For instance, there was no documented evidence to show how the BAZ Board addressed the issue of the service provider who failed to deliver service. The issue was discussed during the meeting held on February 11, 2020 and it was resolved to make the service provider account for the US\$360 000 which was paid for project awareness campaign services.

Though BAZ carried out the day to day administrative activities for the project, the strategic plans for the period 2016 to 2020 did not include the project indicating that it was not prioritised. Inclusion of the project in the strategic plan would have assisted the management to prioritise project objectives and determine the manner in which to achieve those objectives. However, the strategic plans were developed in 2021 following the appointment

of Board of Directors on July 31, 2019. The previous Board's term of office officially ended on March 31, 2015 and since then BAZ operated without a Board.

### **Management Response**

**The audit observation is noted. BAZ's strategic plan was developed in 2021 following the appointment of the Board of Directors. For the period 2015 to 2020, the Authority operated without a Board of Directors. Also from March 2022, BAZ had created a Monitoring and Evaluation Department.**

#### **3.1.5 Delay in Payments to Project Contractor**

BAZ failed to meet the payment terms to the Contractor as outlined under Article 10 of the Project Contract Agreement. A review of the project progress implementation report submitted for audit in September 2022 revealed that there had been a delay of over 5 years in effecting payments. There was a balance of US\$15.5 million for delivered equipment and software owed to the Contractor as at May 1, 2020. As a result, the contract was terminated in October 2020 and interest charged had accrued to US\$4.7 million as at the time of termination of the contract. However, after the termination of the contract BAZ fenced project sites and upgraded the Headend during the period 2022 to 2024.

### **Management Response**

**The audit observation is noted. The delays or failure to comply with the terms of the Project Contract Agreement in terms of payment is attributed to the funding challenges experienced during the project implementation. Funding of the Project is the responsibility of the Government through Treasury.**

**The following were the effects of delays in completing the Digital Broadcasting Migration;**

- Failure by the citizens to access Digital TV and Radio broadcasting services particularly those in remote areas such as Siakobvu and Maphisa where the project objective was to enable the communities to access both TV and Radio services.
- Loss of qualified personnel to steer the project as evidenced by twenty-six (26) out of thirty-three (33) trained engineers who resigned from the project.
- Wastage of resources as acquired equipment is idle while there are also maintenance costs being incurred. Furthermore, the equipment is depreciating in value and will soon be obsolete due to changes in technology.
- Financial losses incurred on engaging a consultant to come up with project awareness campaign strategies. Also, financial losses were incurred on trainings of broadcast content producers, purchased content producing equipment and production of the content. The costs could have been incurred after completion of the project.
- Insurance costs as manufacturers' warranties expired before equipment was put to use. The insurance costs could not be ascertained by audit as BAZ indicated that the work to ensure project equipment was yet to be started although the manufacturers' warranties on most equipment had expired.
- Possible reputational risk with ITU and other member states which may negatively affect future investment opportunities.

- Possible loss of potential market for local artists and content producers to supply their content.
- Wastage of the country's bandwidth/frequencies due to continued use of the analogue technology which is not efficient in frequency usage. The digital technology uses less frequencies. The completion of the digitalisation project could have assisted in frequency savings allowing more players to come aboard.
- Abandonment and vandalism of uncompleted installations at transmission sites, for example, the transmission tower erected at Siakobvu site had missing bolts. At Maphisa transmission site there were illegal gold panning activities being undertaken.
- Payment of annual lease rentals for the satellite facility without deriving full benefit from signal distribution service. According to audited 2015 to 2018 financial statements and 2022 to 2023 financial records availed to audit, an amount totaling US\$4,4 million was paid towards satellite services.
- Continued use of analogue transmitters interfere with the digital television services of other countries, and their digital services interfere with Zimbabwe analogue television services which are still in use.

## CHAPTER 4: CONCLUSIONS

This chapter details general and specific conclusions to my audit.

### 4.1 General conclusion

From the findings that have been outlined in Chapter 3 of my report, it is apparent that the implementation of the project has not been done efficiently, economically and effectively. This is in view of the fact that project activities have been ongoing for over eight (8) years without achieving the intended purpose of migrating to the digital systems. There are over 60% broadcasting services and systems that still need to be worked on and completed for sound digital Television and Radio broadcasting services to be universally accessible by all the country's citizenry.

Diverse broadcasting services have been partially achieved as two private owned Television Channels, 3KTV and ZTN Prime were brought onto the digital platform as at the end of December 2022 to broadcast alongside the National Broadcaster. However, the capacity can provide for twelve (12) digital channels.

### 4.2 Specific conclusions

The following are specific conclusions

- 4.2.1 There is no evidence that the Ministry is exploring other sources of funding to complete the project.
- 4.2.2 There is wastage of resources resulting from delays in concluding the project.
- 4.2.3 New project sites were commenced before completion of those started earlier. Instead, project funds were used on too many activities which could not make meaningful impact to the project.

Project financial resources are being used to procure assets not meant for the project.

The project is incurring interest charges due to delays to pay the Contractor whose contract was terminated.

- 4.2.4 Due to the absence of the strategic plans, BAZ's momentum towards timeous achievement of project objective might have been reduced during the period 2015 to 2022 resulting in subsequent delays to complete the project.

## CHAPTER 5: RECOMMENDATIONS

In order to address the delays affecting the completion of the ZimDigital project there is need to re-look at the whole project and come up with a robust plan that will speed up the completion of the ZimDigital project. The following recommendations can be considered:

- 5.1** BAZ should engage the Ministry of Finance, Economic Development and Investment Promotion for alternative sources of financing such as Public Private Partnerships (PPPs), Cooperating Partners, and Investors so that the project is completed. In addition, the cost to completion should be established so that the actual requirements are known.
- 5.2** BAZ should enhance expenditure control so that available funds are used on key project areas and expenditure outside the scope of the project is not incurred. Further, BAZ should follow up with the service provider on project awareness funds and also reinvest funds realised from sales of set boxes into the project.
- 5.3** BAZ should rank project activities and embark on manageable activities at a time to make effective use of the available resources. At least it is better to concentrate on few sites and complete them rather than to spread and have non completed sites.

In addition, BAZ should find alternative source of equipment required for the Outside Broadcasting vehicles so that they can be put to use.

- 5.4** To improve on project monitoring and evaluation activities, the following should be considered:
  - The Ministry management responsible for the oversight of the project should come up with effective strategies such as project completion plan or Gantt chart that can serve as a road map for completion of the project.
  - BAZ management should in future negotiate payment plans with Contractors in consultation with Ministry of Finance, Economic Development and Investment Promotion to enable timeous payment of dues.
  - The Ministry and BAZ management should prioritise paying off the Contractor to avoid further interest charges.
  - The Ministry and BAZ management should meet regularly to review progress and come up with mitigation measures where there are challenges.
  - Engineering students at the various tertiary institutions under the supervision of qualified engineers and technicians can be of assistance to boost manpower levels in implementing the project.

## ANNEXURES

### Annexure A: Reviewed Documents.

Document	Reason for Review
Broadcasting Services Act and Broadcasting Services Regulations.	To appreciate the country's Broadcasting Legal Framework and institutions vested with powers to spearhead development of such projects as the ZimDigital project.
Project Feasibility study report.	To establish key project works, activities, timelines and funding modalities set out for the project.
Project Contract Agreement, Strategic plans, Operational Work plans, Bid and Budgets.	To appreciate project's value and objectives and establish strategies, performances targets and financial resources put in place to achieve project objectives.
Board minutes of meetings.	To assess Board's level of involvement with the project and decisions made to address issues affecting the project.
Project implementation structure.	To establish project key players and appreciate their roles and responsibilities to the project.
Payment vouchers, Tender documents, financial statements and Treasury disbursement schedules for the project.	To establish how much of the project goods and services were acquired from Government disbursements and whether purchases by the project were done in accordance with procurement laws.
Records of distributed set top boxes/decoders for testing purposes.	To establish locations and names of project end users supplied with project decoders for testing purposes.
Project monitoring and internal audit reports.	To establish project progress made to date at project sites and any misuses of project resources noted to date.
Project training records.	To appreciate the extent of trainings provided to local engineers attached to the project.

**Annexure B: Interviewed Key Project Personnel and Stakeholders.**

<b>BAZ Key Personnel</b>	<b>Reason for Interview</b>
Chief Executive Officers at BAZ, ZBC and Transmedia Corporation	To establish institutional roles and responsibilities to the project and project developments, outstanding works and challenges at each institution.
BAZ- Director Broadcast Content Compliance	To establish the department's specific roles and responsibilities towards the project and what was done on the project including specific challenges being faced.
Internal Audit Manager	To appreciate any issues relating to the project uncovered to date and establish internal control weaknesses affecting the project.
Director Technical	To establish the department's specific roles and responsibilities to the project and what it has done to date to the project including specific challenges being faced.
Company Secretary/ Legal Advisor	To establish the department's specific roles and responsibilities to the project and any legal challenges and litigations faced.
Procurement Manager	To appreciate whether or not project goods and services were being acquired in line with procurement regulations and also appreciate the challenges being faced.
Finance and Administration Consultant	To establish whether or not financial accounting and management of project funds were being done independently from BAZ main funds and the challenges being faced.
<b>Key Stakeholder Personnel</b>	
Engineers- ZBC and Transmedia	To establish services, they rendered to the project and technical challenges that were being experienced.
Accounting Officer- Ministry of Information, Publicity and Broadcasting Services	To appreciate background information to the project and project objectives and the Ministry's specific roles and responsibilities to the project including challenges being faced.

**Annexure C: Breakdown of Cost of the ZimDigital Project.**

<b>Item</b>	<b>Amount (US\$)</b>	<b>Total Amount (US\$)</b>
<b>Technical Equipment</b>		
1. Station and Content Hub Solution	42 139 577.27	
2. Digital Terrestrial Television (DTT)	25 033 001.67	
3. Uninterrupted Power Supply (UPS) and Data Centre Solution	1 522 293.84	
4. Site Construction Material	10 160 120.19	
5. Content and Technical Monitoring system for (BAZ)	5 589 339.83	
6. Web Tv Solution	2 074 224.68	
7. FM Solution	15 410 578.32	
8. Auxiliary equipment	3 003 010.26	
9. TV Multiview monitoring upgrade	687 147.96	
10. Radio Data System (RDS)	2 208 000.00	
11. TV transmitters/Antenna	2 253 451.84	
12. More Site construction material and spares	500 000.00	
<b>Total</b>		<b>110 580 745.87</b>
<b>Services</b>		
1. Station and Content Hub Integration and commission services	8 723 250.42	
2. DTT Integration and commission services	6 012 480.45	
3. UPS and Data Integration and commission services	1 306 518.84	
4. Site construction services	6 102 309.19	
5. Content and Technical monitoring system Integration and commission services	1 580 171.00	
6. Web TV Integration and commission services	1 756 712.00	
7. Training Solution	650 000.00	
8. Site, old uninstallation, new site installation and FM training	5 328 690.32	
9. Service Solution for equipment	273 784.00	
<b>Total</b>		<b>31 929 116.83</b>
<b>Grand Total</b>		<b>142 509 862.70</b>
<b>Less- One-time special Discount</b>		<b>(17 509 863.70)</b>
<b>Final Amount</b>		<b>US\$125 000 000</b>

Source: Project Contract Agreement's Annexure L.

**Annexure D: Status of Inspected Project Sites in Provinces.**

<b>Province</b>	<b>Inspected Project Site in the Province</b>	<b>Required Works</b>	<b>Works Done and Completion Dates</b>	<b>Outstanding Works</b>
Mashonaland West	(1) Karoi Signal Transmission Site	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Refurbishment of Transmission Site and installation of digital TV system completed on 09/11/18	Upgrading of FM Radio System Not done, old FM system in operation.
	(2) Siakobvu Signal Transmission Site	Construction of a TV Only Transmission Site	-Foundation works completed on 31/03/17  -Tower works completed on 20/11/18	-Machine room/shelter, -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
	(3) Kariba Signal Transmission Site	Construction of a TV Only Transmission Site	- Foundation works and Machine room/shelter completed 20/05/16	-Erection of Transmission Tower, -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
Bulawayo	(4) Montrose Signal Transmission Site	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Refurbishment of Transmission Site and installation of digital TV system completed on 18/06/18	-Upgrading of FM Radio System Not done, old FM system in operation.
Matabeleland South	(5) Gwanda Transmission Site	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Refurbishment of Transmission Site and installation of digital TV system completed on	-Upgrading of FM Radio System Not done, old FM system in operation.

	(6) Maphisa Transmission Site	Construction of a TV Only Transmission Site	09/11/18  -Foundation works completed on 27/05/16  -Tower works completed on 23/12/16	-Machine room/shelter, -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
	(7) Insiza Shangani Transmission Site	Construction of a TV Only Transmission Site	-Foundation works completed on 30/06/17	-Erection of Transmission Tower, -Machine room/shelter -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
Manicaland	(8) Mutare Transmission Site	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Refurbishment of Transmission Site and installation of digital TV system completed on 19/05/16	-Upgrading of FM Radio System Not done, old FM system in operation.
	(9) Honde Valley Transmission Site	Construction of a TV Only Transmission Site	Foundation completed on 27/05/17 Tower and Machine Room completed on 23/10/2017	-Installation of digital TV equipment.
	(10) Nyanga Transmission Site	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Refurbishment of Transmission Site and installation of digital TV and Radio Systems Completed on 20/07/18	-None.
	(11) Chimanimani Transmission Site	Refurbishment of Transmission Site and installation of digital TV and	Refurbishment of Transmission Site and installation of	-Upgrading of FM Radio System Not done, old FM

		Radio Systems	digital TV system completed on 30/12/17	system in operation.
Masvingo	(12) Gutu Transmission Site	Construction of a TV Only Transmission Site	-Foundation works completed on 20/07/18  -Tower works completed on 08/04/20	-Machine room/shelter, -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
	(13) Mashava Transmission Site	Construction of a TV Only Transmission Site	-Foundation works completed on 20/05/16  -Tower works completed on 11/10/16	-Machine room/shelter, -Digital TV transmitters, -Down link system, -Power backup systems, and -Fencing.
	(14) Glen Livet	Refurbishment of Transmission Site and installation of digital TV and Radio Systems	Not Done	-Refurbishment of Transmission Site and installation of digital TV and Radio Systems.

Source: Status of Sites Visited as of February 2023.

**Annexure E: Project Implementation Status at ZBC.**

<b>Production centre Name</b>	<b>Capacity</b>	<b>Quantity</b>	<b>Location</b>	<b>Implementation Status</b>
1. Master Control Room	Master Control Room, SDI Router	1	Pockets Hill	Completed
2. Playout System	6 Channel playout	1	Pockets Hill	Completed
3. ZBC Main Studio	5 Cameras	1	Pockets Hill	Completed
4. ZBC Commercial Studio	4 Cameras	1	Pockets Hill	Completed
5. Power system	800KVA Generator, UPS, PDU	1 Set	Pockets Hill	Completed
6. ENG Camera System	48 sets of ENG cameras	1	ZBC Harare, Bulawayo & Other Provinces	Completed
7. ZBC News Studio	4 Cameras	1	Pockets Hill	Not Done
8. NLE	5 sets of editing workstations for Bulawayo studios	5	Montrose, Bulawayo	Not Done
9. OB VAN	4 Cameras	2	Pockets Hill	Not Done
10. Flyaway System	8 Cameras	1	Pockets Hill	Not Done
11. NLE	Editing workstations	27	Pockets Hill	Not Done
12. NLE	8 sets of editing workstations for 8 other provinces	8	Other Provinces	Not Done
13. WEB TV	Unified IPTV & OTT platform	1	Pockets Hill	•Civil works- Done •Equipment-Pending
14. MAM	Set of MAM	1	Pockets Hill	•Civil works- Done •Equipment-Pending
15. OB VAN	16 Cameras-expandable to 20 cameras	1	Pockets Hill	•Truck delivery Done •Broadcast equipment Pending
16. DSNG VAN	Satellite transmission, and with 3 production Cameras	1	Pockets Hill	•Van delivery Done •Trailer and Broadcast equipment Pending

17. DSNG VAN	Only Satellite transmission	3	Pockets Hill	•Van delivery Done •Broadcast equipment Pending
18. ZBC Bulawayo Studio 1	4 Cameras	1	Bulawayo, Montrose	•Civil Works- Done •Equipment-Pending
19. ZBC Bulawayo Studio 2	4 Cameras	1	Bulawayo, Montrose	•Civil Works-Done •Equipment-Pending

Source: ZBC Digitalisation Update Report.