

UNIVERSITY FOR DEVELOPMENT STUDIES

Internal Audit Directorate

WACWISA PROJECT



WACWISA
Building Capacities for Sustainable Solutions



**UNIVERSITY FOR
DEVELOPMENT STUDIES**

Building Capacities for Sustainable Solutions
WACWISA

DEVELOPMENT STUDIES
UNIVERSITY FOR

AUDIT REPORT FOR THE YEAR 2023

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1.0 EXECUTIVE SUMMARY

We conducted the fourth-quarter 2023 Audit of the West African Centre for Water, Irrigation, and Sustainable Agriculture (WACWISA) under the University for Development Studies (UDS) to review the policies, procedures, and governance of the Centre's initiative of the Africa Centre of Excellence.

The Audit covered the period of the last three months of the year 2023 (October to December 2023) and includes both financial and non-financial activities of the Centre.

1.1. Summary of Significant Findings and Recommendation

The following significant findings and recommendations were observed during our audit:

1.1.1. Institutional Impact

We observed that the support to UDS Business Innovation and Incubation Centre (now a Department in the School of Business) to nurture entrepreneurial innovations by faculty and students was under-scheduled.

We recommend that WACWISA Management should prioritize the allocation of resources and streamline administrative processes within the Department of Business Innovation and Incubation.

We further recommend regular monitoring and evaluation to ensure progress towards achieving these goals.

1.1.2. WACWISA Students Enrollment

It was observed during the review of the WACWISA Centre's documents that the percentage of students retained in both PhD and Master's Programs was 90.5% as at December 2023 instead of 90% as stated in the policy document.

We commend the entire management team at WACWISA for achieving the remarkable milestone of meeting the enrollment rate. Your dedication and strategic efforts have undoubtedly played a pivotal role in this significant accomplishment.

1.1.3. Quality of Education – Publication

We noticed that a total number of Sixty-one (61) Articles and six (6) Students' Thesis were published on the WACWISA website

We commend the Centre for the effective collaboration of researchers for the publications on the website.

1.1.4. E-Learning Platform

We observed that the e-learning platform was set up with its equipment procured and installed for research and teaching as required in the policy

We commend the Management of the Centre for the achievement of planned activities

1.1.5. Relevance of Education - Laboratories Equipment

We observed that the WACWISA Centre has set up the laboratories and procured the necessary research and training equipment for the core site for research and training.

We praise the Centre for procuring the laboratories research and training equipment for the core site as stated in the WACWISA policy document table 9(5.2)

1.1.6. Greenhouse Technology

We observed that the Centre has invested in greenhouse technology for research, training and the cultivation of vegetables to generate income to support the Centre's activities

We commend the Centre for investing in greenhouse technology for research, practical training and the cultivation of vegetables to generate income to support the Centre's activities

2.0 INTRODUCTION

WACWISA-UDS was established in 2019 as one of the Africa Centre of Excellence (ACE) Impact Projects funded by the Government of Ghana and the World Bank. ACE initiated the project together with other funding agencies to discover new and developing avenues to advance the borders of knowledge.

The focus of WACWISA is mainly on research and technology developments in water resource management, irrigation, and sustainable agriculture. The mission is to create a platform to develop the skills and knowledge of young men and women to provide practical and sustainable solutions to challenges of water resources, irrigation, and agricultural development.

WACWISA has built capacities of graduate students through Short Courses, Masters, and PhD programs, as well as promoting teaching and learning strategies opportunities for the next generation of academics, and industry experts to address the issue of low technology.

WACWISA's core vision for the period of the project is to be a leading World-class Academic and Research Centre specializing in irrigation, water resources, sustainable agriculture, and climate change.

The core values of WACWISA that guide its training and research include Quality and Excellence, Unity in Diversity, Diligence and Integrity, Coaching and Mentoring, and Shared Governance and Responsibility.

WACWISA under the five-way management board system together with the University Management under the leadership of the Vice Chancellor to ensure that the Centre's Financial and Procurement Manuals as well as other laws of the Republic of Ghana are followed to ensure transparency, avoid fraud and corruption.

3.0 BACKGROUND

The report presents the findings and recommendations of the fourth quarter Audit carried out by the Internal Audit Directorate of UDS. The purpose of the Audit was to evaluate the efficiency, effectiveness, and adequacy of controls and operations of the project, identify weaknesses if any, and provide recommendations for improvement

The planning and execution of the internal audit work were designed to obtain reasonable assurance that the Financial and Procurement Systems under review were operating in accordance with relevant laws and WACWISA policies. To attain this, we examined various policies and procedures of the WACWISA-UDS, internal controls, and other relevant national laws, such as the Public Procurement Act, 2003 (Act 663) as amended, the Public Procurement Manual, and the Public Financial Management Act, 2016 (Act 921) the Value Added Tax Act, 2013 (Act 870) to provide a comprehensive and reliable valuation of financial management, procurements, and contracts administration and management.

4.0 OBJECTIVES OF THE AUDIT

The main objective of the WACWISA Audit was to evaluate the financial management, procurement procedures, internal controls, and compliance with the project policies and national laws.

The audit was conducted to ascertain the following:

- to assess the achievement of DLI following the implementation policy of the Centre
- ascertain whether the procurement procedures and processes are complied with the Public Procurement Act, 2003 (Act 663) as amended

5.0 SCOPE OF THE AUDIT

The scope of the Audit covers all financial administration and procurements of the Project for the Centre by reviewing the effectiveness of the internal controls of the system, The Audit is from October 2023 to December 2023.

6.0 APPROACH AND METHODOLOGY

In conducting the Audit, the following procedures were used:

- Conduct interviews with the project management to have much understanding of the project
- Acquired all the necessary documents needed for the Audit
- Examination of all the necessary documents for the project
- Visited the project website for all the necessary information
- Enquired all the feedback from the previous Audit
- Tested the software system used

The following risk areas were considered in the preparation of the Audit program:

- Spending above the approved budget
- Procurement laws and other tax laws may not be followed
- Spending within the timeline of the project
- The Bank Reconciliation Statement was not prepared on time and was not reviewed
- Accuracy and reliability of transactions in the system

7.0 DETAIL FINDINGS AND RECOMMENDATIONS

7.1. Institutional Impact

Criteria:

Implementation Plan for 2019-2023, page 26, point 5 table 9(7.3) says that performance monitoring is critical for the success of WACWISA as it will help in the tracking of progress of activity implementation towards achieving the Program Development Objective (PDO). To support the Department of Business Innovations and Incubation in the School of Business to nurture entrepreneurial innovations by faculty and students.

Condition

We observed that the support to UDS Business Innovation and Incubation Centre (now a Department in the School of Business) to nurture entrepreneurial innovations by faculty and students was under-scheduled

Cause

This could be as a result of inadequate executions of the plan and monitoring by the officer in-charge

Effect

This could derail the achievements of the WACWISA Centre.

Recommendation

We recommend that WACWISA Management prioritize the allocation of resources and streamline administrative processes within the Department of Business Incubation and Innovation in the School of Business.

We further recommend regular monitoring and evaluation to ensure progress toward achieving these goals.

Management Response:

Engagements are therefore being held with the UDS School of Business to fulfil this commitment.

7.2. WACWISA Students Enrollment

Criteria

According to the Implementation Plan 2019-2023, page 40, the output indicator under recruitment and enrolment shows that the WACWISA Centre should retain at least 90% of enrolled students.

Conditions

It was observed during the review of the WACWISA Centre's documents that the percentage of students retained in both PhD and Master's Programs was 90.5% as at December 2023 instead of 90% as stated in the policy document. (See table below)

Summary - Students Enrolment as at December 2023 (All Academic Years)

| A | B | C | D | E | F | G = F - E |
|---------------------|-----------|-------------|-------------|---|-------------|--------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Grand Total | Actual Total |
| PhD | 3 | 48 | 9 | 35 | 95 | 60 |
| Masters | 20 | 43 | 3 | 32 | 98 | 66 |
| | 23 | 91 | 12 | 67 | 193 | 126 |

Dropout rate over 4 academic years is 9.5 % without students who didn't report to campus

Cause:

The University's or WACWISA program's reputation for academic excellence, cutting-edge research, or specialized training can attract a large number of students seeking quality education.

Effective marketing campaigns, outreach programs, and recruitment strategies can significantly influence student enrollments by increasing awareness and interest in educational opportunities.

Offering competitive tuition rates, scholarships, grants, and other financial aid options can make education more accessible and appealing to students from diverse socioeconomic backgrounds.

Effect:

Higher enrollments typically lead to increased tuition revenue, which can be reinvested in improving educational resources, facilities, and student support services.

Larger enrollments can foster a more diverse student population, enriching the academic and social experiences of students and contributing to a vibrant campus community.

Commendation:

We commend the entire management team at WACWISA for achieving the remarkable milestone of meeting the enrollment rate. Your dedication and strategic efforts have undoubtedly played a pivotal role in this significant accomplishment.

7.3. Quality of Education - Publications

Criteria

Point 4.10 under table 9 of the policy document of WACWISA for 2019-2023 indicates that there should be at least 2 journal articles in indexed journals in year 1 and increasing numbers in subsequent years

Condition

We noticed that a total number of Sixty-One (61) Articles and Six (6) Students' Thesis were published on the WACWISA website

Cause

This is as a result of effective collaborative efforts of researchers

Effect

This could enhance the reputation of the Centre and open up more opportunities for securing grants

Commendation

We commend the Centre for the effective collaboration of researchers for the publications on the website.

7.4.E-Learning Centre

Criteria

Point 4.9 of table 9 of the WACISA Policy document requires the Project to set-up e-learning platform and acquired e-learning resources.

Condition

We observed that the e-learning platform was set up with its equipment procured and installed for research and teaching as required in the policy (See in Appendix 1)

Cause

Adherence to institutional or governmental policies mandating the establishment of e-learning platforms for research and teaching purposes.

Effect

This could offer interactive multimedia content, enhances the overall learning experience and reduces the associated costs.

Commendation

We commend the Management of the Centre for the achievement of planned activities

7.5.Relevance of Education - Laboratories Equipment, Research and Training

Criteria

Performance indicator 5.2 of the WACWISA Policy document as contained in table 9 enjoins the procurement of research and training equipment for GIS Laboratories for the core site.

Condition

We observed that the WACWISA Centre has set up the laboratories and procured the necessary research and training equipment for the core site for research and training.

(See in Appendix 2 below)

Cause

The Centre may prioritize capacity building and training activities to empower local researchers, students, and practitioners with the skills and knowledge necessary to address water and climate challenges in the region.

Effect

This could improve teaching and learning

Commendation

We praise the Centre for procuring the laboratories research and training equipment for the core site as stated in the WACWISA policy document table 9(5.2)

7.6.Greenhouse Technology

Criteria

Performance indicator 5.2 of table 9 of the WACWISA Policy document required for the procurement of research and training equipment for Greenhouse Technology for the core site

Condition

We observed that the Centre has invested in Greenhouse Technology for research, training and the cultivation of vegetables to generate income to support the Centre's activities. (See in Appendix 3)

Cause

The Centre may have recognized the potential of greenhouse technology as a valuable tool for conducting research in agricultural sciences, climate change mitigation, or sustainable farming practices.

This could be as a result of an innovation from the Centre Management.

Effect

This could support academic research works and practical training

This could serve as a source of income for the Centre

Commendation

We commend the Centre for investing in Greenhouse Technology for research, practical training and the cultivation of vegetables to generate income to support the Centre's activities

8. CONCLUSION

In conclusion, we identified certain weaknesses and areas for improvement, it is important to note that WACWISA has made commendable progress in its mission. We believe that implementing our recommendations will further strengthen governance, financial, procurement issues, and overall effectiveness

9. ACKNOWLEDGMENT

We would like to express our appreciation to WACWISA management and staff for their cooperation. We hope that the findings and recommendations drawn in this report will serve as a valuable resource in guiding WACWISA towards continued growth and success.



Abudulai Abubakari

24th April 2024

Director, Internal Audit

10. APPENDICES

Appendix 1. E- Learning Platform

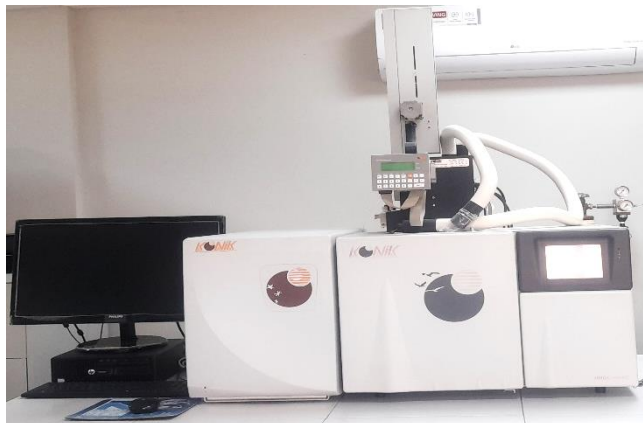




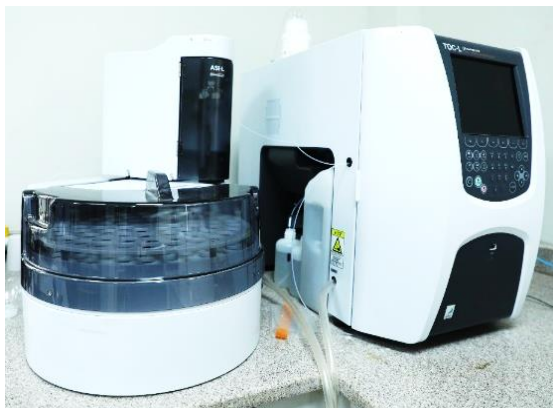
Appendix 2. List of WACWISA Laboratories Instruments

IDENTITY OF INSTRUMENT

1. KONIK High Resolution Gas Chromatograph - Mass Spectrometer (HRGC-MS)



2. SHIMADZU Total Organic Carbon (TOC-L) Analyzer



3. VELP SCIENTIFICA EMA 502 Elemental Micro Analyzer CHNS-O



4. HACH DR 6000 UV-VIS Spectrophotometer



5. PG Digital Flame Photometer



6. AQUASAFE WSL50 PRO Portable Field Laboratory (for the detection of microbiological and physico-chemical water quality parameters):



7. MEMMERT Oven



8. OPTIKA Microscope



9. ARMFIELD C4-MKII Multi-Purpose Flume – Hydraulics Bench



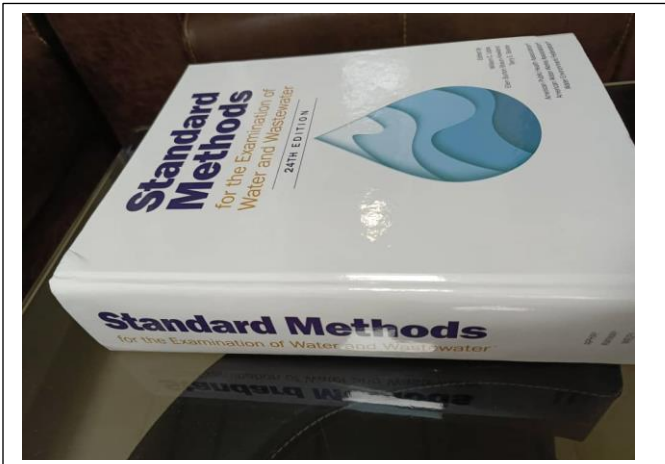
10. BIOBASE LAMINAR FLOW CABINET



11. METALYZER HM3000



12. Apha Awwa Wef Standard Methods Book



13. Pharmaceutical Refrigerator



14. Hotplate Magnetic Stirrer



15. Autoclave



Appendix 3 Greenhouse Technology







Summary - Students Enrolment as at December 2023 (All Academic Years)

| A | B | C | D | E | F | G = F - E |
|----------------------------|------------------|--------------------|--------------------|--|--------------------|---------------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Grand Total | Actual Total |
| PhD | 3 | 48 | 9 | 35 | 95 | 60 |
| Masters | 20 | 43 | 3 | 32 | 98 | 66 |
| | 23 | 91 | 12 | 67 | 193 | 126 |

Dropout rate over 4 academic years is 9.5 % without students who didn't report to campus

2019/2020 Academic Year

| A | B | C | D | E | F | G = F - E |
|----------------------------|------------------|--------------------|--------------------|--|--------------------|---------------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Grand Total | Actual Total |
| PhD | 3 | 2 | 6 | 0 | 11 | 11 |
| Masters | 10 | 0 | 1 | 0 | 11 | 11 |
| | 13 | 2 | 7 | 0 | 22 | 22 |

Dropout rate for 2019/2020 academic year is 31.8 %

2020/2021 Academic Year

| A | B | C | D | E | F | G = F - E |
|----------------------------|------------------|--------------------|--------------------|--|--------------------|---------------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Grand Total | Actual Total |
| PhD | 0 | 10 | 2 | 8 | 20 | 12 |
| Masters | 10 | 0 | 2 | 1 | 13 | 12 |
| | 10 | 10 | 4 | 9 | 33 | 24 |

Dropout rate 2020/2021 academic years is 16.67 % without students who didn't report to campus

2021/2022 Academic Year

| A | B | C | D | E | F | G = F - E |
|----------------------------|------------------|--------------------|--------------------|--|--------------------|---------------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Grand Total | Actual Total |
| PhD | 0 | 24 | 0 | 20 | 44 | 24 |
| Masters | 0 | 31 | 0 | 21 | 52 | 31 |
| | 0 | 56 | 0 | 41 | 96 | 55 |

Dropout rate 2021/2022 academic years is 0 % without students who didn't report to campus

2022/2023 Academic Year

| A | B | C | D | E | F | G = F - E |
|----------------------------|------------------|--------------------|--------------------|--|--------------|---------------------|
| Study Program Level | Graduated | In-Progress | Dropped Out | Offered Scholarship but didn't Report to Campus | Total | Actual Total |
| PhD | 0 | 12 | 1 | 7 | 20 | 13 |
| Masters | 0 | 12 | 0 | 10 | 22 | 12 |
| | 0 | 24 | 1 | 17 | 42 | 25 |

Dropout rate 2022/2023 academic years is 4 % without students who didn't report to campus