



## ENHANCING COMPLIANCE AND ENFORCEMENT IN UGANDA

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New Welfare Services–Sustainable Service Design as a driver for regional development

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## 1.0 Introduction

Compliance plays a crucial role in ensuring the effective functioning of any nation's legal, regulatory, and tax systems. In Uganda, like in many other countries, achieving and maintaining high levels of compliance is essential for economic growth, social stability, and the delivery of public services. This concept note outlines a comprehensive strategy to enhance compliance in Uganda, focusing on key areas such as tax compliance, regulatory compliance, and legal compliance.



### 1.1. Background

Uganda faces various challenges related to compliance, including tax evasion, regulatory non-compliance, and violations of legal standards, laws, policies and regulations among others. These issues undermine the government's ability to collect revenue, provide public services, and maintain law and order. Enhancing compliance is not only a matter of enforcing penalties but also involves creating an environment that encourages voluntary compliance.

The Ministry of Water and Environment has the mandate of regulating the use of water resources in the country. The Directorate of Water Resources Management uses permits as a tool for regulating the use of the resource for sustainable and equitable use. Permits issued have conditions attached to them and it is through compliance to the issued permit conditions that the resource can be used sustainably. The Compliance and Enforcement Division has the overall task of enforcing compliance with issued permit conditions in collaboration with staff from other Divisions and the Zonal offices.

The Directorate of Water Resources Management (DWRM) of the Ministry of Water and Environment is responsible for sustainable and integrated management of water resources in

Uganda. The mission for the DWRM is: To manage and develop the water resources of Uganda in an integrated and sustainable manner in order to provide water of adequate quantity and quality for socioeconomic needs for both the present and future generations. Among the DWRM's other responsibilities is that of regulating the use of water resources in Uganda through water use permits and ensuring compliance and enforcement of water resources regulations, standards and permit conditions.

Over the past 10 years since the Water Regulations were issued, the DWRM identifies the following factors having accounted for the registered enforcement shortcomings:

- a) Some water users have not realized the likelihood of being detected to be illegally using water. This has tended to undermine their interest to register and apply for permits.
- b) DWRM not been effective and swift in responding to deter offenders in water use because of limited resources and capacity.
- c) Due to limited resources and capacity, non-effective weak sanctions (notices and reminders), have been applied against non-compliant users.
- d) There is poor understanding of the benefits of Water Act and associated regulations among the water users due to poor communication on part of regulatory agency.
- e) Weak enforcement of the Water Act

The Water Resources Planning and Regulation Department maintains a permit database containing a total of 3500 in number of permit holders distributed over the four zones. Of these permits, Five Hundred and Thirty One (531) are expired which is about 15.2% of the total number of permits.

This manuscript therefore seeks to guide the monitoring of compliance to issued permit conditions and task permit holder permit holders to perform their obligations. It is expected that from this manuscript or essay, the ministry staff will be to pick strategic plans for ensuring that compliance levels of their different units are increased at least 30% towards the monitoring of compliance to issued permit conditions.

## **1.2. Objectives of the Study**

The research will review the Ministry of Water and Environment laws and regulations as a service driver to enhance compliance in Uganda's water resources management. Broadly, it aims to:

- 1) Enhance the capacity of regulatory bodies to enforce and monitor compliance with environmental standards and permit conditions within the water sector. This objective is focused on empowering regulatory agencies to effectively carry out their responsibilities in enforcing compliance with environmental regulations related to water sector activities.

- 2) Foster stakeholder engagement in monitoring compliance with environmental standards and requirements in the water sector. This objective seeks to encourage the active involvement of stakeholders and the public in monitoring compliance with environmental regulations and standards within the water sector, promoting transparency and accountability.
- 3) Build the capacity of the staff in the Ministry of Water and Environment to carry out monitoring compliance of permit holders to permit conditions.

### **1.3. Research Questions**

To achieve the study's objectives, the research questions will guide the discussion on the current status of Uganda's compliance and enforcement levels of the Ministry bodies, comparing it to the other countries especially the East African countries and international standards, and proposing recommendations for improvement.

- 1) How can regulatory bodies in the water sector be further empowered to effectively enforce compliance with environmental standards and permit conditions?
- 2) What strategies can be implemented to enhance stakeholder engagement in monitoring compliance with environmental standards and requirements in the water sector?
- 3) What specific training and resources are needed to build the capacity of staff in the Ministry of Water and Environment to effectively monitor the compliance of permit holders to permit conditions?

## **2.0 Literature Review**

This section of the research paper offers an overview of regional development initiatives within the Ministry of Water and Environment, highlighting the significance of regulatory frameworks governing water resources management. It also discusses the ongoing efforts toward compliance integration from the Canvas platform concerning water and environmental policies and practices.

However, what is not discussed in the Ministry currently are the penalties that can be given to permit holder who default the permit conditions given to them to ensure enhancement of compliance.

### **2.1 Water Use (Abstraction) Regulation**

In the context of this manuscript, Water use regulation in form of Abstraction is an act of guiding the abstraction of either surface or underground water and transfer of such water for non-domestic

use. The act of regulating water use is to ensure provision of adequate quantities and quality of water for all social and economic needs of present and future generation. Water use regulation is carried out through enforcement of the Water Act Cap 152 and Water (Water Resources Regulations S.1 No. 152-1) and, through implementation of Water Policy (1999). Administratively, water use through Abstraction is regulated through the issuance and enforcement of Water Abstraction Permits.

## **2.2 Water Use (Waste Water Discharge) Regulation.**

In the context of this manuscript, Wastewater discharge regulation is an act of controlling the discharge of wastewater into the environment. The act of regulating wastewater discharge is intended to ensure that all discharge meets required standards before discharge and that it is discharged in a socially and environmentally friendly manner. Regulating wastewater discharge is carried out through enforcement of the Water Act Cap 152, the National Environment Act Cap 154, and Water (Waste Water Discharge) Regulations S.1 No. 152-4). Administratively, wastewater discharge is regulated through the issuance and enforcement of Wastewater Discharge Permits

## **2.3 Previous studies carried out in Uganda on Compliance**

### **2.3.1 The Enforcement and Compliance Monitoring Strategy for Water Abstraction and Waste Water Discharge Permits (ECMS)**

The Enforcement and Compliance Monitoring Strategy (ECMS) encompasses the mandate of the Directorate of Water Resources Management (DWRM that is to ensure the provision of adequate quantities and quality of water for social and economic uses for present and future needs. The ECMS is a description of the management goal, objectives, strategies and actions for fulfilling the obligation of ensuring compliance to permit conditions issued to regulate water use and discharge of wastewater into the environment. The ECMS includes a description of implementation modalities and requirements, institutional and permit holders roles and responsibilities, framework for evaluating the ECMS, budget and risk management.

## **2.4 Water Abstraction Permits**

### 2.4.1 Regulated Water Uses

According to Article 3 of part II of Water (Water Resources) Regulations, water abstraction qualifies to be regulated when

- I. the user wishes to construct, use/own, occupy or control and works on or adjacent to land on or adjacent to which there is a motorized pump for pumping water from a borehole or waterway;
- II. there is a weir, dam, tank or other works capable of diverting or impounding an inflow of more than 400m<sup>3</sup> in any period of 24 hours; and,
- III. there are works of non-consumptive uses. These forms of water use are regulated via permits systems described in subsequent sections.

### 2.4.2 The Water Use (Abstraction) Permits

Water Abstraction Permit is an authorization granted by the Director of DWD to abstract water on terms and conditions stipulated in such authorization. Presently, the following categories of permits are provided for under Water Act.

- a) Ground Water Abstraction Permit
- b) Surface Water Abstraction Permit
- c) Drilling Permit
- d) Easement Certificates
- e) Water Works Construction Permits

The essay addresses Ground Water Abstraction Permit and Surface Water Abstraction Permit only.

A permit granted always has two sets of conditions; viz: Standard and Specific Conditions. Standard conditions are selected provisions of the Water Act and Water Resources Regulations while specific conditions to the permit issued vary according to applicant's data and findings of the Verification Team. All Permit holders required to adhere to both categories of permit conditions

#### *2.4.3.2 Adherence to Water Use (Abstraction) Permit conditions*

Permit holders are required to adhere to all permit conditions. All Water use (Abstraction) permits carry the following Standard Conditions: a) Not to cause or allow any water to be polluted. b) Preventing damage to the source from which water is taken or to which water is discharged after use. c) Taking precaution to ensure that no activities on land where water is used result in the accumulation of any substance, which may render water less fit for the purpose for which it may be reasonably used. d) Observe conditions prescribed by Regulations under the Water Act. e) Observe any special conditions that may be attached to the Permit. However, this requirement has been met to varying degrees of success. The following Water Abstraction Permit conditions are unsatisfactorily complied with:

- a) maintaining accurate and up-to-date records on water consumed (water measurements);
- b) installing measuring devices (Water meters) and;
- c) managing the watershed/catchment close to sources of water.

This level of compliance is partly due to; a) weaknesses in enforcement systems and procedures e.g., less punitive measures for offenders, b) institutional capacities (limited human, financial, and logistical resources c) weak institutional collaboration between DWRM and other agencies, d) inadequate incentives to compel Permit holders to comply and; e) political involvement.

#### *2.4.3.2 Regulatory roles*

This sub-section will emphasize more of what the Ministry is currently doing to enhance compliance including the committees that sit to coordinate and advise the minister in charge of Water

##### a) The Water Policy Committee

The mandate of National Water Policy Committee encompasses matters of coordination of hydrological and hydro-geological investigations, coordinating the preparation and implementation and amendment of water action plan, advising the minister responsible for water (or any other minister) on issues of legal and policy relevant to the investigation, use, control, protection, management or administration of water and disputes.

##### b) Minister responsible for Water

The Water Act Cap 152 mandates the Minister responsible for Water resources to: i) promote rational management and use of waters of Uganda, ii) provide clean, safe and sufficient supply of water for domestic purposes to all persons, iii) allow for orderly development and use of water resources for purposes other than domestic, iv) control pollution and, v) promote safe water storage, treatment, discharge and disposal of waste water.

Additionally, the Water Act gives the Minister authority to delegate certain water abstraction management, coordination, monitoring and technical responsibilities to Water Authorities (e.g., NWSC), Local Water Authorities (e.g., Small Towns Water Authorities), Technical Support Units (TSUs) and Umbrella organizations, as appropriate.

### 2.5.2 Enforcement role

a) The Directorate of Water Resources Management (DWRM) The Director DWRM has mandate to manage and develop water resources in Uganda in order to provide water of adequate quantity and quality for all social and economic needs of the present and future generation. However, this provision is not reflected in Water Act that was put in place before the DWRM was established.

b) The Directorate of Water Development (DWD) Water Act cap 152 mandates the Director DWD to: i) grant Water Abstraction Permits, ii) provide overall technical oversight for the planning, implementation and supervision of the delivery of urban and rural water and sanitation services and water for production, iii) regulate the provision of water and sanitation and, iv) provide capacity and other support services to Local Governments, Private Operators and other service providers.

c) The National Water and Sewerage Corporation (NWSC) NWSC is mandated to provide water supply services for domestic, stock, industrial, or commercial use and, to manage water resources entrusted to it. d) Local Water Authorities The designated local water authorities are mandated to provide water supply services for domestic, stock, industrial, or commercial purposes in the “regulated community” and to manage water resources entrusted to it through the “Operator”.

### 2.4.5.3 Collaborators

The execution of the regulatory and enforcement mandate provides for collaboration between the government and other actors to promote efficiency in water use. Presently, the following categories are engaged. a) Water User Groups, Committees and Associations Article 50 of the Water Act provides for the establishment of Water User Groups and, Water and Sanitation Committees or Associations with mandate to manage water resource use in their area, monitor and coordinate compliance to permit conditions, mobilize water users to comply with water use conditions e.g. paying water charges and, maintain water works. b) Non-Governmental Organizations/Civil Society Organizations (NGOs/CSOs). August 2010 Draft for Review C:\Users\user\Documents\Alex 2008\Alex FDI\BID s 2010\COWI 2009\ECMS report\ECMS September version.doc 18 . Under the Umbrella organization Uganda Water and Sanitation Network (UWASNET), NGOs/CSOs collaborate with Ministry of Water and Environment to



monitor access and use of water resources (equity) by stakeholders and communities. c) Private sector Government collaborates with private sector in form of financing or provision of technical and consulting services to the water abstraction activities, or to serve as “Operators” to the Water Authorities. 2.4.6 Regulating Water Use (Abstraction) The procedure for regulating this form of water use is by the issuance of Water Abstraction Permits for either groundwater or surface water use. The issuance of Abstraction Permits is in response to an application from eligible/intending user. The following subsections outline the procedures applied.

#### *2.4.6.1 Determining water users eligible for regulation*

The eligibility of water use to be regulated is determined based on the definitions described in the Water Act (Section 2.4.1). The majority of regulated water users are City/Municipal and Town Councils, and industrial, commercial or large-scale public utilities/facilities. Presently, not all eligible users are regulated due to several factors including a) Centralized system of processing water abstraction permits is reported to be expensive for distant users to process regulation applications; hence, they are reluctant to apply. b) Institutional capacity (Financial and human resources) to carry out nationwide registration of eligible water users.

#### *2.4.6.2 Processing Water Use (Abstraction) Permit*

a) Administration Applications for Water Abstraction Permits are processed by DWD3 using schedules in the Water Act. All applications attract an application fee payable to the consolidated Fund at the time of submitting the application forms. 3 The Water Act provides for the DWD. However, ever since the DWRM was established, applications are processed by DWRM and forwarded to DWD for signature. This creates an additional administrative process. The provision in the Act need to needs to be amended to Upon receipt of the application for Water Abstraction Permit, the Director may advertise the application and invite the public or any public authority to response to the application.

b) Technical evaluation The representative of the Director, DWD uses information submitted on schedules to evaluate and determine specific permit conditions. A Verification team is commissioned to appraise the application and recommend granting (or rejection) of the permit and the applicable conditions. DWRM is required to carry out water assessments and provide advice

on water quantity, quality, sustainability, current and future uses, and likely conflicts, among others, to inform the decisions for granting or rejecting applications for water abstraction permits. However, this function has not been performed partly because there is no requirement for assessing water quality and quantity or in the procedures for approving such projects hence this requirement is sometimes skipped when approving such projects.

c) Approving water works All water abstraction works, including those sponsored by the government are required to be approved by DWD before the commencement of such works. Among the key considerations during this approval process is the suitability of the works about water quantity, quality and sustainability of the water source. However, as indicated above, some waterworks have been designed and executed without a comprehensive assessment of water quantity, quality, and sustainability for the targeted sites or points of abstraction.

Such cases exhibit unwarranted technical oversights that render such water abstraction works liable to cause environmental damage or conflicts over water use and access. The above description reflects that the ECMS should seek to address the following issues concerning processing permits for Water Abstraction use.

- a) Institutional Capacity to undertake the required technical evaluation of the application.
- b) Development of a database of existing regulated water users to serve as a reference in processing new applications.
- c) Provision of incentives (e.g., awareness creation about the benefits of regulated water user, decentralized handling of permit applications) for attracting water users to apply for regulation.
- d) Streamlining role of DWD and DWRM in handling water abstraction applications with their respective mandates. give the DWRM full powers to issue water permits

Also, permit format should be revised to reflect the suggested change.

## **2.5 Waste Water Discharge Permits**

The procedure for regulating this form of water use is by issuance of Waste Water Discharge Permits. The issuance of Waste Water discharge Permits is in response to an application from eligible/intending discharger. The following subsections outline the procedures applied.

### 2.5.1 Regulated discharge

According to the Water (Waste Discharge) Regulations S.1 152 - 4 waste includes sewerage, and any other matter or thing whether wholly or partially in solid, liquid or gaseous state, which if added to water may cause pollution. Therefore, wastewater is any form of water containing such waste. Discharging wastewater qualifies for regulation when it results into causing or allowing any waste to come into contact with any water or a piece of land without adequate treatment of the waste in question to acceptable levels stated in the National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations, S.1 No. 153-3. In the context of this Strategy, Waste Water discharge regulation is therefore an act of controlling discharge of wastewater into the environment purposely to ensure that all discharge meets required standards before discharge and that it is discharged in a socially and environmentally friendly manner.

### 2.5.2 Waste Water Discharge permits

These are permits issued by the Director of Water Development to regulate discharge of effluents and wastewater into environment.

#### 2.5.2.1 Status

The total number of waste Water discharge permits stands at 240 permits as at 31st May 2023. This information reveals that Fifty-nine percent (59 %) of Waste Water Discharge permits were valid by May 2023

#### 2.5.2.2 Adherence to Waste Water Discharge Permit conditions

According to Article 20 of Water Act, the Standard permit conditions are: a) Not to cause or allow any water to be polluted. b) Preventing damage to the source from which water is taken or to which water is discharged after use. c) Taking precaution to ensure that no activities on land where water is used result in the accumulation of any substance which may render water less fit for the purpose for which it may be reasonably used. d) Observe conditions prescribed by Regulations under the Water Act. e) Observe any special conditions that may be attached to the Permit. Wastewater discharge permits conditions that have been found to be unsatisfactorily complied with include: a) maintaining accurate and up-to-date records on wastewater discharged (wastewater measurements); b) installing wastewater management facilities and; c) controlling pollution by treating waste to permissible level of contamination before discharge.

Majority of wastewater discharge permit holders including “Water Authorities” do not have functioning or suitable wastewater treatment facilities and up-to-day information on quality of wastewater discharged. This status compliance partly due to; a) weak enforcement systems and procedures (e.g., issuance of warning letters), b) limited institutional capacities in form of human and financial resources c) weaknesses related to institutional collaboration d) poor incentives to compel the wastewater discharge permit holders to comply and; e) political involvement that interferes with the DWRM authority e.g., pressures to inaugurate projects before they have completed the processing all requirements for approval.

### 2.5.3 Legal basis for controlling Wastewater discharge

The Waste Water Discharge is controlled by the National Environment Act, Cap 153 and regulated through The National Environment (Waste Management) Regulations S.1 No. 153-2, The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations S.1 No. 153-3, The National Environment (Delegation of Waste Discharge Functions) Instrument S.1 No. 153-4 and the Water (Waste Discharge) Regulations S.1 No. 152-4.

### 2.5.4 Institutional mandates for regulating Wastewater discharge

The institutional mandate for regulating water use is clearly defined in the Water Act and Wastewater Discharge regulations as described in subsequent sections.

#### *2.5.4.1 The regulatory roles*

Wastewater discharge is regulated through Waste Water Discharge Permits issued by DWD. The day-to-day administration of these permits is delegated to DWRM through Statutory Instrument 153-4. The current practice reflects the need for close collaboration among the DWD, NEMA and DWRM.

#### *2.5.4.2 Enforcement role*

The mandate to enforce compliance to the Waste Water Discharge regulations and Permit conditions is delegated to DWRM.

#### *2.5.4.3 Collaboration*

Since wastewater discharge issues are cross cutting in nature, it is a requirement that the DWRM works together with law enforcement agencies (Police and Judiciary) to enforce the permit conditions.

### 2.5.5 Processing Water use (Wastewater Discharge permits)

The procedure for regulating this form of water use is by issuance of Wastewater Discharge Permits. The issuance of Permits is in response to an application from eligible/intending discharger. The following subsections outline the procedures applied.

#### *2.5.5.1 Determining eligibility for regulation*

All wastewater producers who are eligible for controlling are industrial, commercial or large-scale public utilities/facilities. Domestic wastewater or surface run off is not regulated. These categories of producers qualify to have their wastewater management infrastructure and operations subjected to the National EIA system, Investment Projects' approval and Licensing procedures before approval. This procedure targets wastewater discharge at "point" of pollution.

### 2.5.5.2 Application process

a) Administration Prospective Waste Water discharge permit holder applies for permit using Form A of the Regulations and submits the application form together with prescribed application fee. Upon receipt of the application, the Director Water Development is required by law to advertise on two occasions in a newspaper a notice about the application or may give public notice of the application or to any person whom may be considered to be adversely affected by the discharge of the waste to the which the application relates for a period not less than 30 days. The applicant meets costs incurred in administering the application. The annual permit fees are presently determined using the BOD parameter.

b) Technical Appraisal In processing the application, the Director takes into account in accordance with Article 9 of the Regulation, the following: i. Existing authorised and projected quality of water in the downstream of the area. ii. Any adverse effects that the discharge is likely to have on existing water uses, future water uses, aquifer or waterway, environment and in stream sources of water. iii. Minimum water quality standards and effluent discharge standards iv. Any guidelines in force. v. Government policy on environment management. vi. Comments from any public authority. vii. Wastewater treatment facility.

c) Approval of Wastewater treatment facility The development of Wastewater treatment and discharge facilities is the responsibility of the developer/applicant. NEMA evaluates and approves the proposed facilities and issues standards to be adhered with. Based on advice by NEMA, the Director DWD issues the Wastewater Discharge permits.

### 2.5.6 Priority issues relating to Permits to be addressed

Basing of the issue identified in the preceding sections, the following are the priority issues pertaining to the Permits. a) Institutional capacity to survey and record all water users country wide. b) Institutional Capacity to enforce and monitor compliance. c) Incentives for achieving compliance to Water Act and associated Regulations (including appropriate institutional arrangements, compliance measures, enforcement measures, etc.). d) Broadening pollution parameters to be included in permit conditions.

## 2.6 Enforcing Water Act and Regulations

This section presents an analysis of the enforcement measures and practices applied by DWRM and experiences gained from these practices.

The DWRM enforces Water Act and Regulations via: a) Monitoring compliance to Permit Conditions; b) Assisting compliance; c) Monitoring quality of Wastewater discharge, d) collaboration with law enforcement agencies in enforcing compliance.

### 2.6.1 Enforcement measures

Enforcement measures are procedures and actions undertaken by government (DWRM, DWD, NEMA) to regulate Water Use (Abstraction) and Wastewater Discharge. The following measures

are applied: a) Publishing Standard and Special Permit conditions. b) Penalties and punitive enforcement actions e.g., cancellation of permit. c) Compliance Assistance (Voluntary compliance) e.g., through issuance of warning letters, advice on economic incentives, assisting Permit holders to access quality equipments, among others. d) Public – Private Sector Partnerships e.g. through licensing Operators. e) Publicity/sensitizing permit holders on permit conditions. f) Conducting EIAs for eligible uses.

### 2.6.2 Enforcement practices

Enforcement practices consist of actions taken by DWRM to ensure obligatory compliance. The following practices are in force as stated in this study by the consultant:

- a) Availing application forms to public and designating receiving desk;
- b) Carrying out “verification” exercises to determine applicability of Standards conditions and to determine specific permit conditions;
- c) Issuance of Performance contracts to Water Authorities and Private Water Operators to enforce Water abstraction permits;
- d) Physical inspections on compliance to permit conditions;
- e) Monitoring quality wastewater discharge
- f) Compliance Assistance or Voluntary compliance in form of correspondences, advisory or persuasive approaches.
- g) Application of economic incentives e.g., assisting Permit holders to access quality equipments, among others;
- h) Approving construction of water abstraction infrastructure and wastewater treatment facilities;
- i) Carrying out EIAs and monitoring compliance to mitigation measures; j) Self-monitoring on amounts of water used and quality of waste water discharge; and
- k) Engaging Umbrella Organizations to assist in providing technical and coordination support.

### 2.6.3 Enforcement challenges

#### **2.6.3 Monitoring challenges**

The enforcement of Water Abstraction and Wastewater Discharge Permit conditions faces multiple challenges, including the prevalence of unregistered users due to low publicity of relevant laws and procedures, poor information on eligibility, negative public attitudes, and inadequate incentives and capacity for inspections. Institutional enforcement is hindered by varying interpretations of enforcement, limited resources, weak tools, overlapping mandates, and legal procedures that allow permit abuse. Additionally, there is low awareness of the benefits of regulated water use, procedural gaps for transboundary water resources, and policy and legal provision gaps that necessitate revisions to reflect DWRM's mandate. Furthermore, legal arrangements, such as the NWSC's autonomy, serve as disincentives for effective regulation by the DWRM.

### **2.7 Monitoring compliance**

This section presents an analysis of the monitoring measures and practices applied by DWRM and experiences gained from these practices. Compliance monitoring is the act of supervising or regular checking of compliance to the permit conditions. The following forms of monitoring are applied: a) self-monitoring by Permit holders, b) inspections by DWRM and NEMA, c) citizen complaints and area monitoring by DWRM, d) sharing of monitoring data.

2.7.1 Monitoring measures Monitoring measures are procedures/processes applied for monitoring compliance to the permit requirements and conditions.

The following measures are in force by the Ministry of Water: a) Issuance of monitoring and reporting formats to permit holders and lead agencies. b) Conducting monitoring visits by DWRM. c) Compliance monitoring through self-monitoring by Permit holders. d) Installing water volume measuring devices. e) Multi-sectoral/institutional approach e.g. joint monitoring missions. f) Collecting wastewater samples and carrying out laboratory tests.

2.7.2 Monitoring practices

The following practices are applied by the Ministry: a) Site based sensitization and technical assistance/advice and building public support. b) Installation of water meters and other water quantity measuring devices. c) Building district capacity (Water Office) in water permits administration. d) Joint technical monitoring teams to monitor selected users. e) Sharing monitoring data.

2.7.3 Monitoring challenges

The following challenges are encountered:

The Directorate of Water Resources Management (DWRM) faces several challenges in monitoring water abstraction and wastewater discharge across Uganda. These include budget and personnel limitations, geographical remoteness, and inadequate monitoring tools and systems, which hinder effective countrywide oversight. Unregistered water and wastewater activities persist due to lack of awareness, deliberate non-compliance, and political protection, compounded by procedural inefficiencies and insufficient incentives for self-monitoring. Data integrity issues arise from dishonest reporting and inconsistent data collection methods, focusing mainly on water quantity rather than availability and sustainability. The overlapping roles of DWRM and NEMA result in duplicated efforts without information sharing. Additionally, the Polluter Pays Principle is not effectively implemented, and some operators discharge waste during off-peak times to avoid detection. Ensuring staff integrity remains a concern, with reports of collusion with offenders further complicating enforcement efforts.

2.8 Compliance with permit conditions by Permit holders  
Compliance in this section refers to an act of conforming or fulfilling permit conditions by Permit Holders. Permit holders are required to observe special and standard permit conditions.

### 2.8.1 Compliance measures issued to permit holders

The Water Abstraction Permit and Wastewater Discharge Permit holders are required to comply with Standard and Special conditions of the Permit. DWRM applies the following measures to ensure compliance with the permit conditions. a) Monitoring Special and General Conditions issued together with the permit. b) Self-monitoring by the Permit holder. c) Inspections by DWRM and NEMA including collecting of water samples for laboratory analysis of the discharged water. d) Submission of monitoring data to DWRM and NEMA.

### 2.8.2 Compliance practices by permit holders

Monitoring of water abstraction by permit holders is limited to measuring the volume of water abstracted. However, as noted under section 2.5.2, this requirement is not adhered to by all Permit holders. Monitoring of wastewater discharge by permit holders involves collecting and analyzing samples of wastewater discharge to determine the BOD and other pollutants. The Permit holder submits the results of this analysis to DWRM and NEMA. The level of compliance with this requirement varies. The reliability of the results submitted to DWRM and NEMA varies.

### 2.8.3 Compliance challenges and failures faced by permit holders

The following are the challenges faced by Permit Holders: a) Irregular monitoring inspection action by DWRM. b) Poor or no sharing of monitoring data and results between DWRM and Permit Holders. c) Cost of wastewater treatment and laboratory analysis.

### 2.8.4 Priority issues for compliance by permit holders

The following are issues regarding Compliance by permit holders should be into account in the development of the ECMS. a) Attitude and culture of non-compliance to permit conditions. b) Capacity to carry out regular monitoring exercises. c) Measures for ensuring institutional collaboration. d) Information or Data management. e) Costs of wastewater treatment. f) Continued Wastewater discharge with impunity, including tendencies to discharge at night and on weekends/public holidays when enforcement officers are off duty.

## **2.9 The Strength, Weaknesses, Opportunities, and Threats (SWOT) Analysis**

The analysis of the major areas of influence on enforcement and compliance is presented under three categories: a), Policy and legal Instruments; b) Permit Conditions; c) Institutional arrangements. Details are presented in Annex 6.

### 2.9.1 Policy and Legal instruments for enforcing water abstraction & wastewater discharge permits

a) Relationship between regulated upstream and downstream water users in ensuring sustainable water resources management b) Formalizing the function of DWRM in the National Policy Committee. c) Streamlining the legal and policy mandates of DWD and DWRM in enforcement and monitoring d) Rationalizing the basis of eligibility of regulated use about the minimum



volumes e) Structure of permit fees in reference to the volumes consumed and volume of discharge  
f) Registration of easements g) Effectiveness of “Delegation of authority” about Waste water discharge permits h) Broadening considerations for approving water use permits to include aspects such as social and economic implications i) Requirements for monitoring non-point sources of pollution

### 2.9.2 Water Abstraction and Waste Water Discharge Permits

a) Fees structures to take account of the volumes consumed or discharged b) Harmonizing institutional mandates over enforcement and monitoring compliance c) Effective punitive measures d) Incentives for compliance e) Information base about water users and wastewater dischargers f) Data and information management and sharing

### 2.9.3 Institutional set up

a) Streamlining the mandates of DWRM in the administration of Permit systems b) Institutional capacities for enforcing, monitoring compliance and mentoring water use/wastewater discharge c) Staff performance and credibility

## **2.10 External Factors Relating to Enforcement and Monitoring Compliance**

### 2.10.1 The influence of regional and international cooperation

The legal and policy framework for regulating water resources use in Uganda is partly influenced by the regional and international cooperation arrangements and requirements. The key frameworks with greater influence are the Nile Cooperative Framework Agreement concerning the water of the Nile and the EAC Protocol on sustainable development of Lake Victoria Basin, EAC EIA Guidelines and EAC Standards to regulate discharge of effluent into Lake Victoria. The ECMS will be required to reflect actions that ensure that Uganda’s obligations to these cooperation frameworks and agreements are met.

### 2.10.2 Lessons from other Countries Experiences from other Countries are useful in informing Uganda’s Compliance.

Briefly, the relevant lessons and experiences include: a) Institutional arrangements with mutually reinforcing mandates are essential in regulating water use. This is largely because water resource use and management requirements cut across several sectors that are managed under different institutional mandates. b) Information about the quantity and quality of water resources and levels and types of water use is essential for informing decisions on water abstraction and for addressing sustainability requirements. c) Technologies for harnessing water resource use, including those for harvesting and conserving water are essential for sustaining water resource potential, especially in water-stressed areas. d) All commercial water uses are regulated and paid for. The determination of water use fees varies but takes into account the economic values and provides incentives for efficient water uses.

## **2.11 Literature Review from the Canvas Platform on Compliance**

### **2.11.1 Key Notes from researches on LUB search**

Enhancing Compliance with Shipping Regulations for Environmental Protection in Antarctica  
Millicent McCreath Centre for International Law, National University of Singapore,

#### **Key notes from the paper**

The text provides information on the existing compliance mechanisms for shipping regulations in Antarctica. It emphasizes the need for compliance and enforcement mechanisms to protect the marine environment. The primary focus is on the expansion of existing inspection schemes to enhance compliance with shipping regulations in the Antarctic Treaty area. The text highlighted the deficiencies in the current system, such as vessels only being inspected at points of discharging or embarking cargoes or personnel in Antarctica.

- Compliance with shipping regulations in the Antarctic Treaty area is primarily placed on flag States, but many ships operating there are not flagged to party States and are thus not bound by regulations.
- There are currently no tailor-made mechanisms for ensuring compliance with shipping regulations in Antarctica.
- Port State jurisdiction allows enforcement action against discharge violations beyond maritime zones.
- The Madrid Protocol and the CAMLR Convention refer to port State jurisdiction and the duty to enhance compliance.
- The MoUs maintain lists of flag States ranked according to their inspection performances.
- The objective of the Antarctic Port State Control Guidelines would be to prevent harm to the environment or human life. Vessels found to be deficient must be detained until the deficiency is rectified.
- The emphasis in terms of enforcement should be placed on temporary detention of vessels rather than prosecution, except in the case of very serious infractions.
- The Guidelines could include a requirement that the port State control authorities ensure that wastes are disposed of in port before departure to prevent illegal discharges in the Antarctic Treaty area.

### **2.11.2 Enhancing Compliance through Customs and Tax Coordination**

This article deliberated certain customs risks that may generally intersect with tax arrangements concerning transfer prices and license agreements and suggests a few compliance practices to effectively identify or mitigate any potential risks

#### **Key notes;**

- Merchandise imported into the United States is appraised in accordance with section 402 of the Tariff Act of 1930, as amended by the Trade Agreements Act of 1979 (TAA), which is codified in 19 U.S.C. 1401a
- Since customs penalties may also apply for misstated import values on duty-free products, importers of such products should also take notice. For example, even if the products are duty free, the importer may still be potentially liable up to 20 percent of the declared value (\$20 million) if the error or omission
- Enhanced Information Sharing  
To more effectively manage the overlapping areas of tax and customs-risk related to transfer pricing adjustments, organizations may consider whether additional coordination should take place between their tax and customs functions. A helpful starting point is to share and co-examine the organization's customs data.
- Monitoring Import Transactions  
Taxpayers/importers should monitor import transactions between related parties throughout the year and assess whether there are any differences between inventory basis and the customs value of imported property.

### **3.0 Methodology**

#### **3.1. Mixed Methods Approach**

The study commenced in October 2023 and employed a mixed-methods approach, predominantly qualitative, to address the research questions. Initial data collection involved accessing and reviewing literature from the Water Information System of the Ministry of Water and Environment.

#### **3.2 Field visits**

Subsequently, field visits were conducted to various permit holders and water users to assess their compliance statuses. Additionally, information was gathered through a meticulous review of published reports, compliance strategy plans, and media reports.

##### **3.2.1 Engagement with the stakeholders**

Stakeholder engagement plays a pivotal role in ensuring compliance with environmental regulations pertaining to water usage.

Firstly, stakeholders representing various sectors, including industry, government agencies, and civil society organizations, are actively involved in the monitoring process of non-regulated wastewater discharge points and water abstractions. Their participation not only enhances the

effectiveness of monitoring efforts but also promotes transparency and accountability in addressing pollution sources.

Additionally, targeted awareness campaigns are conducted to engage the public in understanding the consequences of pollution from non-point and surface runoff sources, eliciting their support for compliance initiatives.

Furthermore, collaborative partnerships are forged with urban and town authorities, enabling joint efforts in managing non-point and unregulated wastewater discharge. Through these concerted stakeholder engagements, a collective commitment to environmental stewardship is fostered, facilitating the achievement of regulatory compliance and the preservation of water quality.

### **3.3 Review of Permit Files existing using the Water Act**

This comprehensive methodology facilitated a thorough examination of Uganda's water resources regulations, including the Water Act and Environmental Act, and their implications for regional development.

Several permit files exist under the Ministry of Water and Environment and they were reviewed to measure the levels of compliance for each.

### **3.4 Transboundary Compliance with the East African Community**

#### **3.4.1 East African Community**

In Uganda, robust regulatory frameworks exist to enforce compliance with environmental standards, reflecting a commitment to sustainable development. Similarly, neighboring countries, including Kenya, Rwanda, Tanzania, Congo, South Sudan, and Burundi, have established their own comprehensive regulations aimed at safeguarding their natural resources. Prior to the issuance or utilization of transboundary permits by Ugandan authorities or ministries, meticulous attention is given to ensuring alignment with the regulatory requirements of these neighboring countries. This diligent process not only underscores the importance of regional cooperation but also serves as a testament to Uganda's dedication to upholding international environmental standards. By meticulously adhering to these regulations across borders, Uganda not only promotes environmental sustainability but also fosters mutual respect and collaboration within the region.

#### **3.4.2 Lessons Learnt from the Regional Countries**

Through studying the regulatory frameworks of neighboring countries like Kenya, Rwanda, Tanzania, Congo, South Sudan, and Burundi, Uganda can glean valuable lessons to enhance its own environmental management practices. Some of these lessons include:

1. Observing successful strategies implemented in other countries can provide insights into effective methods for environmental protection and resource management.
2. Understanding the challenges faced by neighboring countries in enforcing environmental regulations can help Uganda anticipate potential obstacles and develop proactive solutions.
3. Learning about innovative approaches adopted by other countries can inspire Uganda to explore new methods and technologies for environmental monitoring and compliance.
4. Recognizing the importance of cross-border collaboration in addressing transboundary environmental issues can encourage Uganda to strengthen regional partnerships and cooperative initiatives.
5. Assessing the legal frameworks of neighboring countries can assist Uganda in identifying gaps or areas for improvement in its own legislation, leading to the refinement of existing laws and policies.

#### 4.0 Outcomes and Results

This section outlines the key outcomes and results of enforcing Water Abstraction and Wastewater Discharge Permit conditions, evaluating the effectiveness of current strategies, achievements, and areas for improvement. It assesses the impact on compliance rates, environmental sustainability, and institutional performance to inform future policy and operational adjustments.

#### 4.1 PROGRESS REPORT FOR SURFACE WATER SECTION

This report presents a highlight of activities undertaken by the Surface Water and Environmental Impact Assessment section of the Compliance and Enforcement division.

This table presents the permit files reviewed and their compliance status

SN	PERMIT HOLDERS' NAME	PERMIT NUMBER	REVIEW MADE	Compliance status (%)	REMARKS
1	Total E &P Uganda – <i>Murchison falls</i>	BUL03/SP-01714/2022/RR	Self-monitoring data	90%	Compliant to the permit conditions

2	The New Forests Company	BUG02/SP-00666/2022/RR	Self-monitoring data	72%	Fairly compliant
3	Abaasiku Michael lei mixed farm	ARU01/SP-01705/2022/RR	Renewal request	58%	Denied request Non-compliant
4	Wagagai Limited	MSD503636/1 SW1DW 2019	Self-monitoring data	94%	Compliant
5	China Communication Construction Company Limited - <i>Murchison</i>	BUL101747/1 SWHDW 2017	Review of expired permit	10%	Non-compliant
6	China Communication Construction Company Limited – <i>Masindi</i>	MSD203160/1SW1DW 2018	Cancellation of permit	92%	Permit cancelled Compliant
7	Techno Three Uganda Limited - Kasese	KAS08/SP-700/2023/NN	Self-monitoring data	72%	Fairly compliant
8	Chongqing International Construction Corporation -Sangwe	HOI07/SP-03164/2023/RR	Self-monitoring data	68%	Partially compliant
9	Total E &P Uganda	AMR901782/1SWJDW 2012	Review of expired permit	10%	Non-complaint
10	Total E &P Uganda - (Pura A Well site)	AMR300941/1SWJDW 2013	Review of expired permit	10%	Non-compliant
11	Xclusive Cuttings	WAK03/SP-00698/2021/RR	Renewal request	68%	Partially complaint
12	Energo Projekt Niskogradnja Joint Stock Company	MUB504/SP-541/2022/RR	Self-monitoring data	95%	Compliant
13	Energo Projekt Niskogradnja Joint Stock Company	MUB503/SP-539/2022/RR	Self-monitoring data	96%	Compliant
14	Energo Projekt Niskogradnja Joint Stock Company	MIT104/SP-540/2022/RR	Self-monitoring data	85%	Compliant
15	Chobe Safari Lodges Limited	AMR300735/1SWJDW 2009	Renewal request	10%	Non-Compliant

## Concluding Summary of Cross-Cutting Activities

The Ministry of Water and Environment has engaged in several cross-cutting activities to enhance its operational effectiveness and ensure compliance with water management regulations. Notably, Zutari Impact Engineering conducted training sessions at the Water Resources Institute, significantly contributing to capacity building for ministry staff. Furthermore, consultative meetings have been held to develop comprehensive Environmental and Social Impact Assessment studies, ensuring that all potential environmental and social impacts are thoroughly evaluated and addressed.

A critical update meeting for the Water and Environment Information System – PMP was held on 13th July at the MWE headquarters, in collaboration with the WRPRD, to ensure that the system remains up-to-date and effective in managing water resources data. Additionally, visits to permit holders, including Xclusive Cuttings Limited, were conducted to monitor and ensure their compliance with the conditions stipulated in their permits. These cross-cutting activities collectively aim to strengthen the ministry's capacity, improve regulatory compliance, and foster sustainable water resource management.

### Summary of the results

SN	DESCRIPTION	NUMBER
1	Total number of files reviewed	15
2	Files reviewed for self-monitoring data	8
3	Requests for renewal reviewed	3
4	Requests for cancellation reviewed	1
5	Expired permits reviewed	1

## 5.0 Conclusion

### 5.1. Summary of Findings

This study examined the compliance and enforcement levels in Uganda, focusing on the Ministry of Water and Environment, and explores best practices found in the current system used and lessons learned from the regional development or East- African Community.

Summary of current permit holders or water users:

- 1) Number and categories of Water abstraction and Wastewater discharge permits amount to 3500 in the system but most of them are un-compliant to the permit conditions
- 2) Number of people served by the abstracted water amount to 1250 but about 75% pay the statutory fees.

- 3) The quality of wastewater discharged is about 65% as most the regulated dischargers discharge poor quality back to the lakes.
- 4) Strengthening water management practices. Permit conditions for water abstraction and wastewater discharge have been bolstered, ensuring strict compliance with regulatory standards. A comprehensive database has been established to register all water-related operations and installations, facilitating improved monitoring and oversight. Detailed insights into changes and trends in water quantity and quality resulting from these activities have been provided, enabling informed decision-making.
- 5) Additionally, measures have been implemented to ensure that all non-regulated wastewater undergoes treatment before being discharged into the environment, thereby minimizing potential pollution risks and preserving water resources for future generations. These findings underscore the project's contribution to enhancing water governance and sustainability.

## **5.2. Recommendations from the study**

Based on the results of this study, recommendations for future research include:

1. Strengthen permit conditions for water abstraction and wastewater discharge to ensure strict compliance with environmental standards.
2. Establish a centralized database for registering all water abstraction and wastewater discharge operations and installations to improve monitoring and oversight.
3. Provide comprehensive information on changes, trends, and impacts of water quantity and quality resulting from water-related activities to facilitate informed decision-making.
4. Implement measures to ensure that all non-regulated wastewater undergoes treatment before being discharged into the environment to minimize pollution risks.
5. Foster collaboration, flexibility, transparency, and accountability among stakeholders to promote compliance, innovation, and security in water governance.



6. Conduct awareness campaigns to sensitize the public about pollution risks from non-point and surface runoff sources, fostering a culture of environmental responsibility.

7. Develop measures for institutional collaboration with urban and town authorities to manage non-point and unregulated wastewater discharge effectively.

These recommendations aim to enhance water management practices, promote regulatory compliance, and safeguard water resources for sustainable development.

## **6.0 References**

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