THE REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

DIRECTORATE OF WATER RESOURCES MANAGEMENT

TERMS OF REFERENCE FOR ASSESSING AND MANAGING THE USE OF GROUNDWATER RESOURCES AND DEVELOPING A STRATEGY AND POLICY FOR SUSTAINABLE DEVELOPMENT AND MANAGEMENT OF GROUNDWATER RESOURCES IN UGANDA

OCTOBER 2019

1.0 INTRODUCTION

Groundwater represents one of the largest stocks of accessible freshwater and accounts for about one-third of freshwater consumption globally. Owing to its relatively stable yield of high-quality water, groundwater has emerged as an extremely important water resource for meeting domestic, industrial, agricultural and environmental demands. Although groundwater is often relatively well protected from pollution, poor management has resulted in negative impacts such as declining aquifer heads, groundwater quality deterioration, lower crop yields, ecosystem degradation. With rapid industrialization and with intensification of agriculture, groundwater sustainability has become a major concern world over. The situation is more serious in the arid and semi-arid areas, which lack perennial sources of surface water. Indeed, groundwater is the main, if not the only, water source to support domestic water supply and economic prosperity in many areas. Actually, groundwater has given rise to abundant social and economic benefits because of its minimal infrastructure requirements, ease of access, fairly uniform yield and high water quality. Both urban and rural populations rely entirely on groundwater for their daily domestic needs. Groundwater is used in all kinds of industries, and it also serves as a reliable source of irrigation supply to ensure crop production during times of drought and shortage of surface water supplies

Groundwater development in Uganda has been ongoing since the 1930s mainly for rural water supply through deep boreholes and springs. There has however been an increase in intensive groundwater abstraction mainly for town water supply since the early 1990s due to the need to have piped water supply systems that can easily be operated and managed by the users. Groundwater is the primary source of drinking water for rural and most urban communities (Mubende, Runkugiri, Kyejonjo, Ibanda) in country. Groundwater resource is, therefore, the often prefered water source because it is widely distributed across the different geological terrains and generally of potable quality. The widely usage of groundwater in rural and urban water supplies has also been due to its low-cost alternative to surface water.. This, therefore, makes the investment and operational costs of groundwater-based systems much lower than those of surface-water based systems. Boreholes with yields greater than 5 m^3/hour are thus normally considered for installation with motorized pumps for piped water supply. The recent drilling of high-yield boreholes (> 20m^3/hour) for town water supply has been made in former river channels in various parts of Uganda, but their potential is yet to be fully assessed. Groundwater development in the country has, therefore, been primarliy a greatest contributor in increasing safe water coverage for town water supply across the country. Groundwater development is also being considered for small scale irrigation and other uses, as an adaptation measure to climate change, in situations where surface water sources are not available at a reasonable cost.

Uganda's economic growth has led to increased industrialization and this coupled with the rapid population growth and urbanization has, therefore, led to the growing dependecy on groundwater in the country. The prioritized groundwater development in the country is seen as one of the means of attaining the Sustainable Development Goal (SDG) 6 as well as contributing to the attainment of the various water related goals.

Despite growing dependency upon groundwater for water supplies, concerns remain over the sustainability of these supplies not only in terms of the magnitude of abstraction but also its quality. The problems associated with major and excessive groundwater development are, for the moment, very localized, and priority must be set on more effective planning and sustainable implementation of groundwater development to help meet critical social welfare targets and livelihood opportunities. Managed groundwater development, to meet a variety of demands, will be vital in the overall future development process. A quantitative understanding of the relationship not only between climate and groundwater but also the impact of abstraction is therefore needed. Specifically, there is a need to assess the availability of groundwater and its vulnerability to human and climatic impacts.

This improved understanding is more than ever important considering that many towns and rural growth centres in Uganda are targeting utilisation of groundwater and that a new aspect of solar-powered groundwater pumping has been priotized by government and within various programs and projects such as the Integrated Water Management and Development Project (IWMDP). Due to heavy groundwater development, there will be a need to put in place groundwater development and management strategies in order to regulate and control groundwater development and activities that might compromise groundwater availability and quality. It will also be necessary to address increasing competition and conflict between groundwater users and to control the increasing threat of groundwater to subsurface and anthropogenic pollution. Similarly, there will be need to develop guidelines and procedures for sustainable groundwater development and management such as groundwater resources enhancement and conservation, groundwater protection, groundwater monitoring, borehole separation distances, groundwater allocation, pumping regimes, etc

It is against this background that the Ministry of Water and Environment through its Directorate for Water Resources Management (DWRM) with funding from the World Bank under Integrated Water Management and Development Project (IWMDP) is seeking for a Consultancy to assess and manage the use of groundwater resources and developing a strategy and policy for sustainable groundwater development and management in Uganda.

The work will involve quantification and assessment of the quality and quantity of groundwater resources in various geological environments, especially those targeted for groundwater development under IWMDP. This work will, therefore, be done in very close collaboration with the other components of IWMDP that are prioritizing

groundwater development so that they are adequately guided on groundwater potential as well as the sustainability of groundwater development, the spacing of production boreholes as well as the pumping regimes. The outputs of the work will be guidelines, strategy and policy on aquifer utilisation for sustainable groundwater development for various uses in the country. This will be accompanied by the relevant reports and maps showing aquifer characteristics, distribution and responses to human and climate impacts. To realise these objectives a number of assessment techniques will be employed to ensure that good quality results are obtained.

A reasonable amount of work has been done in Uganda to assess, map and manage groundwater resources in Uganda. This study will therefore build on the outputs of the previous studies and address the gaps identified in those studies. For example, previous groundwater mapping efforts were limited to the production of maps showing the distribution of various groundwater parameters as assessed using borehole data. The activities did not involve quantification of groundwater resources in various geological environments and assessing their potential for intensive groundwater development given human and climate impacts. Similarly, previous assessment studies were localized and did not cover all key hydrogeological environments in Uganda. In addition, the information generated was not fully integrated in decision making processes. To address this gap the information generated under this study will be used to upgrade the national groundwater information system within the framework of the Water Information System (under development) for use in planning of groundwater development and management programs in the country.

The Consultant will undertake the assignment through desk reviews of previous reports, consultations with key stakeholders in the relevant departments responsible for water resources management and development at the national and local levels and extensive field investigations. All the information generated through this study will be used to develop a strategy and policy for groundwater development and management in Uganda.

2.0 OBJECTIVES

The overall objective of the assignment is to assess the potential for groundwater development to meet demands for various uses and propose guidelines, strategies and policies for holistic and sustainable development, protection and management of groundwater resources in Uganda.

The specific objectives of the assignment are to:

1. Undertake a detailed assessment of the availability (quantity and quality), distribution and demand for groundwater resources for different hydrogeological terrains in the 4 Water Management Zones of Uganda;
2. Identify threats and pressures and assess potential impacts of human activities and climate change on groundwater resources, both spatially and in time, including mapping of hot spot locations where key extreme pressures are likely to be experienced

3. Propose strategies to address the identified threats and pressures so as to ensure sustainable development, protection and management of groundwater resources in Uganda to support various activities
4. Develop guidelines, strategy and policy for integrated and sustainable development, protection and management of groundwater resources in Uganda.

3.0 EXPECTED OUTPUTS

The expected outputs of the study include the following:

- A detailed baseline assessment of the availability, quality distribution and demand for renewal groundwater resources in different hydrogeological terrains in Uganda (***Reports and maps showing aquifer characteristics, potential and distribution****)*
- A detailed groundwater resources availability and demand assessment report (***Groundwater availability and demand quantified nationally and for various parts of the country****)*
- A report on threats and/or pressures and impacts of human activities and climate change on groundwater resources (***Sustainability of groundwater development assessed****)*
- Strategies to address the threats and pressures and for sustainable development and management of groundwater resources in Uganda (***Guidelines on aquifer utilization and protection for sustainable groundwater development for various uses in the country****)*

- A strategy and policy for integrated and sustainable development, protection, and management of groundwater resources in Uganda (**Strategy and policy *for*** integrated and ***sustainable groundwater development and management developed)***.

4.0 SCOPE OF SERVICES

This study will assess the baseline environment under which groundwater resources are being developed and managed and evaluate the progress made in addressing groundwater related concerns through national institutional policy and regulatory frameworks. Assessment should also consider the progress made in addressing the impacts of human activities and climate change on the quality and quantity of groundwater resources. Although the assignment covers the whole country the work will be undertaken following the 4 Water Management Zones of Uganda. The information will later be consolidated to give a national picture leading to development of a strategy and policy for integrated and sustainable development, protection, and management of groundwater resources in Uganda The assignment will be based on the following existing information:

- National Water Resources Assessments Report and relevant reports on whose basis the report was produced
- Various groundwater resources assessment studies done by the Directorate of Water Resources Management for various areas in Uganda,
- Groundwater maps and reports produced for various districts and Water Management Zones under the Groundwater Mapping Programme
- Borehole drilling and water level monitoring data available in the National Groundwater Database
- Data and information submitted by groundwater consultants and drilling contractors to the Ministry of Water and Environment as part of the permit conditions
- Assessment studies undertaken by groundwater consultants, drilling contractors, national and international academic and research institutions, individuals as part of MSC and PhD research, Non-Governmental Organizations etc
- Relevant documents on groundwater and related resources in Uganda
- Reports from countries where heavy groundwater development from basement complex rocks and other geological formations is ongoing to assess the extent to which they have instituted measures to mitigate possible impacts of human activities and climate change on the quality and quantity of groundwater resources

The existing information will be supplemented by extensive field studies using various methods and techniques such as lithological and stratigraphic analysis, geophysical surveys, assessment using a borehole camera, pumping tests, exploratory boreholes drilling, groundwater-level monitoring, etc.

The study will be undertaken in phases. Phase 1 will involve undertaking detailed analysis and assessment of the existing groundwater resources situation in Uganda based on existing data and information, Phase 2 will involve undertaking detailed

assessment of the potential impacts of human activities and climate change on the quality and quantity of groundwater resources based on field studies, data analysis techniques and groundwater assessment methods, while Phase 3 will involve developing a strategy and policy for integrated and sustainable development, protection, and management of groundwater resources in Uganda. Results of each phase will form a basis for detailed design of the action plan for the next phase.

The specific activities to be undertaken include:

- Undertake detailed situation assessment of the groundwater resources in various aquifers environments in Uganda
- Determine the extent of major aquifer systems and existing and proposed well fields in the different hydrogeological environments
- Undertake stakeholder identification, mobilization, and consultation
- Undertake a detailed groundwater resources assessment (quantity and quality) and distribution of groundwater resources;
- Undertake a detailed groundwater demand assessment (current and future) in various aquifers of Uganda
- Map out areas of groundwater recharge for the identified aquifer systems in the different hydrogeological environments.
- Drill representative number of borehole piezometers in various locations for use in the study as will be determined by the baseline assessment. The number to be drilled will be confirmed at the end of Phase 1.
- Conduct 72 hour pumping tests, as will be determined based on the baseline assessment, to determine aquifer properties and assess the groundwater potential and sustainability of groundwater development in various hydrogeological units
- Identify threats and/or pressures from human activities and climate change on groundwater resources, both spatially and in time, and present the information both in the form of reports and maps
- Assess factors limiting groundwater development (economic and environmental conditions) per Water Management Zone and nationally;
- Assess factors limiting groundwater use (mainly quality of groundwater).
- Map hot spot locations where key extreme pressures to groundwater are likely to be experienced
- Identify activities/sectors that will in a cumulative manner exert a lot of pressure on groundwater

- Assess using relevant hydrological and hydrogeological models groundwater availability and the the impacts of human activities and climate change on groundwater resources in terms of quantity and quality
- Determine groundwater safe yields for respective aquifer systems based social, political and economic context as will be discussed and agreed with the client
- Use results of the modelling and assessment both spatially and in time *to estimate groundwater safe yields for respective aquifer systems and climatic environments*, and present the information and other relevant model outputs in form of maps and reports, to guide decision making related to groundwater resources
- Develop guidelines for integrated and sustainable development, protection and management of groundwater resources that cover among others groundwater resources enhancement and conservation, groundwater protection, groundwater monitoring, borehole separation distances, groundwater allocation, pumping regimes, conjunctive use of water etc . These could be simple methodologies or rule-based systems.
- Propose strategies to address the threats and pressures on groundwater resources allocation and permitting.
- Evaluate various groundwater development potentials and options including potential for multipurpose use and conjunctive use of water and use the information to develop groundwater protection and allocation measures. Development of scenarios or pathways will involve extensive consultation with stakeholders at various levels.
- Produce Hydrogeological maps, figures and reports showing aquifer characteristics, distribution and aquifer responses to pumping with recommendations for sustainable abstraction under different pumping regimes for the different hydrogeological formations
- Assess the institutional and technical capacity of MWE and other key players to address the potential impacts of human development and climate change on groundwater resources and propose strategies to address the capacity gaps.
- Propose strategies for the sustainable development and management of groundwater resources in Uganda to support various activities such as domestic water supply, irrigation, livestock watering, industrial development etc,
- Develop a strategy for integrated and sustainable development and management of groundwater resources in Uganda.
- Develop a policy for integrated and sustainable development, protection, and management of groundwater resources in Uganda

As much as possible the generated information and reports will be presented following catchments and Water Management Zones boundaries as appropriate.

A key component of this work is to build capacity of the Ministry of Water and Environment especially those in the Directorate of Water Resources Management (DWRM), Directorate of Water Development (DWD) and Water Management Zones on concepts, techniques for assessment and sustainable development and management of groundwater resources. This will involve among others attachment of staff to the consultants on a full time basis.

In preparing their proposals, the Tenderers are expressly required to develop their own approach and methodology based on these Terms of Reference. These shall be detailed by the Tenderers and presented as a detailed task description in a concise list of services. The Consultant will specifically be expected to elaborate on how capacity building of MWE staff will be undertaken in various aspects of the study. The Consultant is required to be aware that undertaking this assignment requires him to cooperate and liaise closely with other actors/programmes involved in groundwater development and management to benefit from them and create synergy.

Specific attention should also be given to how the information generated under this study can be used to upgrade the national groundwater information system within the framework of the Water Information System that is under development by the client. Close collaboration with the consultants and team responsible for establshment of the Water Information System is therefore envisaged.

5.0 ORGANIZATION OF THE ASSIGNMENT

5.1 Liaison with MWE/DWRM

The Ministry of Water and Environment through the Directorate of Water Resources Management will coordinate and manage the study. All reports will be submitted to:

The Director
Directorate of Water Resources Management
Plot 10 Mpigi Road
P.O. Box 19, ENTEBBE
Tel: 0414 321342

For the attention of: Manager, IWMDP Component 3 (WRM)

A Task Force will be appointed to supervise the implementation of this activity and coordinate the day to day activities.

5.2 Staffing/Personnel

The Consultant is required to elaborate in his technical offer on the envisaged logistical set-up and deployment of appropriate skills for the execution of the assignment. The consultant should carefully review the scope of works and propose a team of well-organized competent staff, adequately equipped with the necessary skills/facilities to execute the assignment, bearing in mind that a substantial amount of work in this assignment is field based.

The Consultant will be expected to present his staffing schedule in a manner that makes it clear as to which personnel will be involved in a specific activity. A staff organogram reflecting the envisioned activities should, therefore, be presented.

5.2.1 Staffing Requirements

The Consultant shall identify and deploy a team necessary to carry out the assignment and should describe clearly the functions of each team member. The consultant‘s is however expected to provide a team, composed of the following key staff.

i) Groundwater Resources Management Specialist /Team leader
ii) Groundwater **Resources** Assessment Specialist
iii) Groundwater Data Management Specialist
iv) Groundwater **Resources** Policy/Regulation Specialist
v) Groundwater Resource Systems Modeler
vi) Social Scientist

The consultant‘s is required to provide two teams, each composed of the above key staff except the Team Leader who will coordinate and lead both teams The two teams will work concurrently in the various parts of the country following the 4 Water Management Zones of Uganda.

The Consultants core team of specialists will have an estimated total time input of **132 man-months**:

The Consultant is at liberty to propose additional staff/competencies/short-term specialists as deemed appropriate for the successful execution of the assignment.

5.2.2 Staffing Qualifications

The key personnel shall have minimum academic qualifications and experience as stipulated below:

i) **Groundwater Resources Management Specialist (Team Leader):** He/she should have a master’s degree and specialization in groundwater resource management with at least 20 years of international experience in integrated water resources planning, management and development at various levels,

including sub-basins and catchment, the planning and design of groundwater resources development projects, groundwater resources strategy and action plan development, river basin planning, project management and technical assistance including capacity building. He will coordinate the study and the various experts and specifically be responsible for preparation of the groundwater resources strategy and policy.

ii) **Groundwater Resources Assessment Specialist:** He should have a master's degree in Groundwater Management/Hydrogeology with at least 15 years practical experience in groundwater resources assessment using various investigation techniques such as borehole camera, geophysical surveys, pumping tests, groundwater level monitoring, water quality assessment, groundwater modelling etc. He will be responsible for the groundwater quality and quantity assessment aspects of the study, including an assessment of the relevant pressures and impacts.

iii) **Groundwater Data Management Specialist:** He shall have a Master's Degree in Geology with a specialization in Hydrogeology or groundwater resources management. He should have a minimum of 15 years experience in implementation of water resources activities, 10 of which should be related to groundwater quantity and quality data management for preparation of thematic water resources maps and cross-sections. Experience in use of GIS in water resources management or environmental management and specifically in preparation of maps and cross sections will be required. He/she will guide the analysis and interpretation of groundwater resources data to generate different outputs. He/she will also be responsible for the preparation and presentation of map outputs using GIS following standard procedures

iv) **Groundwater Resources Policy/Regulation Specialist:** He should have a master's degree in Groundwater Management/Hydrogeology with at least 15 years of practical experience in groundwater resources regulation and licensing. He will be responsible for the groundwater regulation and licensing aspects of the study, including development of the relevant guidance documents for sustainable groundwater development and management. He will support the Groundwater Resources Management Specialist in the preparation of the groundwater resources strategy and policy

v) **Groundwater Resource Systems Modeler**: A master's degree in Water Resources Engineering or Management or Hydrogeology with a specialization in water system simulation modelling. He should have at least 10 years of relevant experience in undertaking water system simulation modelling including use of climate models with a focus on groundwater resources; He/she will be responsible for the modelling of the human and climate impacts on groundwater resources including assessment of the feasibility of the relevant strategies for groundwater development and management

vi) **Social Scientist** : A master's degree in Sociology with 10 years of relevant experience in undertaking social impact assessments, community engagement etc. The Social Scientist should have extensive experience in stakeholder identification, mobilization and engagement. He/she will be responsible for all the social and community engagement aspects of the project.

All the experts are expected to have experience in groundwater resources and related programmes. Whereas special international expertise is required, local experience in Sub-Saharan Africa is an added advantage. All Projects illustrating the expert's specific experience for the project (groundwater resources projects) and their experience in Africa have to be clearly defined in the expert's CV (including Project name, Location, Country, Duration, Project value, experts specific tasks, etc).

In addition, the core expert team could be supplemented by short-term specialists in other areas required for targeted input. The short term personnel are expected to have demonstrated an appropriate technical experience (in the range of 6-15 years).

5.2.3 Familiarization with the Assignment

To familiarize with the services to be provided under this invitation, the prospective bidder is advised to visit the various area where intensive groundwater development is ongoing or planned. However, it should be understood that any cost incurred in this regard shall not be a reimbursable expense to the Consultant.

6.0 REPORTS AND SCHEDULE OF DELIVERIES

The Consultancy is expected to last a maximum (36) calendar months.

It is, however, the responsibility of the Consultant to establish a detailed work program within the above time frame, taking into consideration the estimated man-month requirements. This should be guided by his professional judgment of the assignment's requirements and knowledge of the local conditions and needs.

The detailed schedule for the required reporting is contained in Table below.

ITEM	REPORT/DOCUMENT TITLE	TIMING AFTER COMMENCEMENT	CONTENT	NO. OF COPIES
A.1	Inception Report	Month 2	The report shall outline the Consultant's mobilization, the work plan, strategy, methodology, a quality assurance plan and timetable for the services. The quality assurance plan	6

			shall include the following (i) A quality policy statement setting out the objectives of the plan and (ii) The personnel who will implement the plan, their responsibilities and authority.	
A.2	A detailed baseline assessment Report	Month 5	The report will contain information on the existing groundwater resources situation in various aquifers in Uganda based on existing data and information	6
A.3	Groundwater resources availability and demand assessment report	Month 12	The report shall comprise results of all technical and socio-economic investigations carried out. It will include situational analysis, the water balance, and the analysis of future groundwater demand and development issues and problems, and impacts.	6
A.4	Threats, pressures and impacts Report	Month 16	Analysis of threats and pressures from human activities and climate change as well as their current and future impacts on groundwater resources, the environment and the people	6
A.5	Impacts and Strategies Report	Month 24	A proposal of strategies for addressing impacts of human activities and climate change on groundwater resources, the environment and the people and for the sustainable development and management of groundwater resources to support various activities such as domestic water supply, irrigation, livestock watering, industrial development etc	6
A.6	Draft Groundwater Resources Development and Management Strategy	Month 30	Contains strategies for the sustainable and holistic development and management of groundwater and related resources to support various activities such as domestic water supply, irrigation, livestock watering, industrial development etc	6
A.7	Final	Month 32	Contains costed strategies for the	6

	Groundwater Resources Development and Management Strategy		sustainable and holistic development and management of groundwater resources to support various activities such as domestic water supply, irrigation, livestock watering, industrial development etc	
A.8	Groundwater Resources Development and Management Policy	Month 36	Contains policy objectives and strategic actions for the sustainable and holistic development and management of groundwater resources	
A.9	Monthly progress reports, including documentation of lessons learned	Monthly	A report (1-2 pg maximum) comprising of a narrative or graphic presentation, showing details of the Consultant's progress, changes in the assignment schedule, impediments and proposed remedies, in addition to documentation on lessons learned.	1
A.10	5 Workshops	Periodically	At the end of Inception Phase, after submission of Groundwater resources availability and demand assessment report, after submission of Threats, pressures and impacts Report, after submission of draft Groundwater Resources Development and Management Strategy, after submission of Groundwater Resources Development and Management Policy	

The consultant is encouraged to assess the appropriateness of the suggested milestones and comment upon realistic expectations, especially with regard to the allocated time frames for the activities, and propose his own assessment and work plan as part of his proposal.

All reports have to be submitted in both soft *(MS Word, PDF)* and hard copy. The hard copies will be prepared in DIN A4 format, except for plans and drawings which should be prepared in DIN A3 format. The reports should be clearly labelled, i.e. title of the study indicated, for easy identification and documentation purposes. All reports shall be prepared in the English language.

Please note that the Consultant will be expected within **two (2) weeks** of submission of some reports to conduct presentations to the Client during regional and national workshops.

The Consultant will further be required to include a provisional sum of US$ 60,000 to meet the costs of holding the Workshops. The workshops will be facilitated by the Client. At each workshop, the consultants will make PowerPoint presentations, provide concise background documents for discussion and prepare workshop reports to document the proceedings.

In addition to the regional and national workshops described above, the consultant will be expected to conduct informal stakeholder engagement sessions (workshops, meetings, etc.) throughout the duration of the assignment.

The costs of holding national workshops and stakeholder consultations must be included in the consultant's proposal.

The Consultant is also required to include a provisional sum of US$ 260,000 for construction of piezometers and purchase of data loggers and flow meters for use in the study.

7.0 CAPACITY BUILDING AND TRAINING

The Consultant shall work with and train designated staff with the aim of developing capacity and knowledge transfer. Training will include key areas related to the assignment such as field investigations, data processing and analysis, database development, management and updating, hydrogeological modelling, development of guidelines, strategies and policies for groundwater development and management etc. The training measures are aimed at improving the performance of the designated technical staff. Some of the trainings are expected to be conducted within the framework of the Water Resources Institute of the Ministry of Water and Environment in Entebbe.

8.0 DATA, FACILITIES AND SERVICES TO BE PROVIDED BY THE CLIENT

To the extent possible, the Client will provide free of charge all existing information, data, reports and maps in her custody and will assist the Consultant in obtaining other relevant information and materials from governmental institutions and state authorities as far as possible. Key References will include but not limited to;

i) MWE, 2013: National Water Resources Assessments Report
ii) DWRM, 2018: Various groundwater resources assessment studies done since 1996 to present,
iii) DWRM, 2014: Groundwater maps and reports for various districts and Water Management Zones

iv) Borehole drilling and water level monitoring data available in the National Groundwater Database
v) Data and information submitted by groundwater consultants and drilling contractors to the Ministry of Water and Environment as part of the permit conditions
vi) Assessment studies undertaken by groundwater consultants, drilling contractors, national and international academic and research institutions, individuals as part of MSC and PhD research, Non-Governmental Organizations etc
vii) Relevant documents on groundwater and related resources in Uganda
viii) Various Catchment Management Plans
ix) Various Water Resources Development and Management Strategy

However, it is the duty of the Consultant to check availability, quality and suitability of this information. The information, data, reports etc. as mentioned above will be available for the Consultant's unlimited use during execution of the proposed services. Due provision shall be made by the consultant in his proposal in case he has to procure additional maps, aerial photographs, meteorological, geological data, etc, necessary to carry out the assignment.

In general, the Client will facilitate the consultant to obtain staff permits, authorizations and licenses required for the performance of the Consultant's services in Uganda. He will also assist the Consultant in customs clearance of all equipment, materials and personal effects to be imported (and re-exported upon completion of his assignment) for the purpose of the study.

9.0 REQUIREMENT FOR QUALITY PLANS

The Consultant will be required to demonstrate in their proposal, evidence of adoption of the use of a Quality Assurance System (ISO 9001 or equivalent) as well as to describe how quality control will be implemented in the course of the project.