



REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

IRRIGATION FOR CLIMATE RESILIENCE PROJECT (ICRP)

PROJECT ID NO: P163836

Request for Bids

**NON-CONSULTANCY SERVICES FOR SUPPORTING COMMUNITIES
TO IMPLEMENT PRIORITY CATCHMENT MANAGEMENT MEASURES
IN:**

**LOT 1: Kyabaganda, Kyezo, Mishumba Micro-Catchments
around Kabuyanda Irrigation Scheme**

**LOT 2: Kazinga-Kiruruma, Lower Mitano, Rushaya Micro-
Catchments Around Matanda/Enengo Irrigation Scheme**

Ref No: MWE/NCONS/22-23/00115

Project: Irrigation for Climate Resilience Project (ICRP)

Employer: Ministry of Water and Environment

Country: Uganda

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Part I – Bidding Procedures

Section I - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

1. Scope of Bid

- 1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified in the BDS, issues this bidding document for the delivery of Non-Consulting Services, as specified in Section VII, Employer's Requirements. The name, identification and number of lots (contracts) of this RFB procurement are specified in the BDS.
- 1.2 Throughout this bidding document:
 - (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the BDS, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;
 - (b) if the context so requires, "singular" means "plural" and vice versa; and
 - (c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays;
 - (d) "ES" means environmental and social, as applicable, (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));
 - (e) "Sexual Exploitation and Abuse" "(SEA)" means the following:

Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another.

Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.
 - (f) "Sexual Harassment" "(SH)" is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Service Provider's Personnel with other Service Provider's or Employer's Personnel;

(g) “Service Provider’s Personnel” is as defined in GCC Sub-Clause 1.1; and

(h) “Employer’s Personnel” is as defined in GCC Sub-Clause 1.1.

A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.

1.3 The successful Bidder will be expected to complete the performance of the Services by the Intended Completion Date provided in the BDS.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called “Borrower”) specified **in the BDS** has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount specified **in the BDS**, toward the project named **in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract for which this bidding document is issued.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment or materials if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

3. Fraud and Corruption

3.1 The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in Section VI.

3.2 In further pursuance of this policy, Bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, a state-owned entity or institution subject to ITB 4.6, or any combination of such entities

in the form of a Joint Venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified in the BDS, there is no limit on the number of members in a JV.

- 4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or

- (e) or any of its affiliates participated as a consultant in the preparation of the Employer's Requirements (including Activities Schedules, Performance Specifications and Drawings) for the Non-Consulting Services that are the subject of the Bid; or
 - (f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower for the Contract implementation; or
 - (g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
 - (h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the Contract.
- 4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member, may participate as a subcontractor in more than one Bid.
- 4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or subconsultants for any part of the Contract including related Services.
- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, and in accordance with its prevailing sanctions policies and procedures as set forth in the

WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS.

- 4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they: (i) are legally and financially autonomous; (ii) operate under commercial law; and (iii) are not under supervision of the Employer.
 - 4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing Declaration or Proposal-Securing Declaration.
 - 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.
 - 4.9 This Bidding is open for all eligible Bidders, unless otherwise specified in ITB 18.4.
 - 4.10 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
 - 4.11 A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process.
- 5. Qualification of the Bidder**
- 5.1 All Bidders shall provide in Section IV, Bidding Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

- 5.2 In the event that prequalification of Bidders has been undertaken as stated in ITB 18.4, the provisions on qualifications of the Section III, Evaluation and Qualification Criteria shall not apply.

B. Contents of Bidding Document

6. Sections of Bidding Document

- 6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 9.

PART 1: Bidding Procedures

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

PART 2: Employer's Requirements

- Section VII - Employer's Requirements

PART 3: Contract

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Special Conditions of Contract (SCC)
- Section X - Contract Forms

- 6.2 The Specific Procurement Notice - Request for Bids (RFB) or the notice to prequalified Bidders, as the case may be issued by the Employer is not part of this bidding document.
- 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 9. In case of any contradiction, documents obtained directly from the Employer shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information or documentation as is required by the bidding document.

- 7. Site Visit** 7.1 The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the locations of required Services and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the Services. The costs of visiting the locations of required Services and its surroundings shall be at the Bidder's own expense.
- 8. Clarification of Bidding Document** 8.1 A Bidder requiring any clarification of the bidding document shall contact the Employer in writing at the Employer's address specified **in the BDS**. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified **in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the bidding document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified **in the BDS**, the Employer shall also promptly publish its response at the web page identified **in the BDS**. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 9 and ITB 23.2.
- 9. Amendment of Bidding Document** 9.1 At any time prior to the deadline for submission of Bids, the Employer may amend the bidding document by issuing addenda.
- 9.2 Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 8.1.
- 9.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend, as necessary, the deadline for submission of Bids, in accordance with ITB 23.2 below.

C. Preparation of Bids

- 10. Cost of Bidding** 10.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.
- 11. Language of Bid** 11.1 The Bid as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer shall be written in the language specified **in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant

passages into the language specified **in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

12. Documents Comprising the Bid

12.1 The Bid shall comprise the following:

- (a) **Letter of Bid** prepared in accordance with ITB 13;
- (b) **Schedules:** priced Activity Schedule completed in accordance with ITB 13 and ITB 15;
- (c) **Bid Security or Bid-Securing Declaration** in accordance with ITB 20.1;
- (d) **Alternative Bid:** if permissible in accordance with ITB 14;
- (e) **Authorization:** written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.3;
- (f) **Qualifications:** documentary evidence in accordance with ITB 18 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
- (g) **Bidder's Eligibility:** documentary evidence in accordance with ITB 18 establishing the Bidder's eligibility to Bid;
- (h) **Conformity:** documentary evidence in accordance with ITB 17, that the Services conform to the bidding document; and
- (i) any other document required **in the BDS**.

12.2 In addition to the requirements under ITB 12.1, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

12.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

13. Letter of Bid and Activity Schedule

13.1 The Letter of Bid and priced Activity Schedule shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 21.3. All blank spaces shall be filled in with the information requested.

14. Alternative Bids

- 14.1 Unless otherwise indicated **in the BDS**, alternative Bids shall not be considered. If alternatives are permitted, only the technical alternatives, if any, of the Most Advantageous Bidder shall be considered by the Employer.
- 14.2 When alternative times for completion are explicitly invited, a statement to that effect will be included **in the BDS** and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.
- 14.3 When specified **in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Services, and such parts will be identified **in the BDS**, as will the method for their evaluating, and described in Section VII, Employer's Requirements.

15. Bid Prices and Discounts

- 15.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Bid and in the Activity Schedule(s) shall conform to the requirements specified below.
- 15.2 All lots (contracts) and items must be listed and priced separately in the Activity Schedule(s).
- 15.3 The Contract shall be for the Services, as described in Appendix A to the Contract and in the Specifications, based on the priced Activity Schedule, submitted by the Bidder.
- 15.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid in accordance with ITB 13.1.
- 15.5 The Bidder shall fill in rates and prices for all items of the Services described in the in Specifications, and listed in the Activity Schedule in Section VII, Employer's Requirements. Items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Activity Schedule.
- 15.6 All duties, taxes, and other levies payable by the Service Provider under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the total Bid price submitted by the Bidder.
- 15.7 If provided for **in the BDS**, the rates and prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract in accordance with and the provisions of Clause 6.6 of the General Conditions of Contract and/or Special Conditions of Contract. The Bidder shall submit with the Bid all the information required under the Special Conditions of Contract and of the General Conditions of Contract.

- 15.8 For the purpose of determining the remuneration due for additional Services, a breakdown of the lump-sum price shall be provided by the Bidder in the form of Appendices D and E to the Contract.
- 16. Currencies of Bid and Payment**
- 16.1 The currency(ies) of the Bid and the currency(ies) of payments shall be the same. The Bidder shall quote in the currency of the Employer's Country the portion of the Bid price that corresponds to expenditures incurred in the currency of the Employer's Country, unless otherwise specified **in the BDS**.
- 16.2 The Bidder may express the Bid price in any currency. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three foreign currencies in addition to the currency of the Employer's Country.
- 16.3 Bidders may be required by the Employer to justify their foreign currency requirements and to substantiate that the amounts included in the Lump-sum are reasonable and responsive to ITB 16.1 and 16.2.
- 17. Documents Establishing Conformity of Services**
- 17.1 To establish the conformity of the Non-Consulting Services to the bidding document, the Bidder shall furnish as part of its Bid the documentary evidence that Services provided conform to the technical specifications and standards specified in Section VII, Employer's Requirements.
- 17.2 Standards for provision of the Non-Consulting Services are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality provided that it demonstrates, to the Employer's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Employer's Requirements.
- 18. Documents Establishing the Eligibility and Qualifications of the Bidder**
- 18.1 To establish Bidder's their eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.
- 18.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its Bid is accepted shall establish to the Employer's satisfaction that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.
- 18.3 All Bidders shall provide in Section IV, Bidding Forms, a preliminary description of the proposed methodology, work plan and schedule.
- 18.4 In the event that prequalification of Bidders has been undertaken as stated **in the BDS**, only Bids from prequalified Bidders shall be considered for award of Contract. These qualified Bidders should submit with their Bids any information updating their original prequalification applications or, alternatively, confirm in their Bids that the originally submitted prequalification information remains essentially correct as of the date of Bid submission.

18.5 If prequalification has not taken place before Bidding, the qualification criteria for the Bidders are specified in Section III, Evaluation and Qualification Criteria.

**19. Period of
Validity of
Bids**

19.1 Bids shall remain valid until the date specified **in the BDS** or any extended date if amended by the Employer in accordance with ITB 9. A Bid that is not valid until the date specified **in the BDS**, or any extended date if amended by the Employer in accordance with ITB 9, shall be rejected by the Employer as nonresponsive.

19.2 In exceptional circumstances, prior to the date of expiration of the Bid validity, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 20, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 19.3.

19.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity specified in accordance with ITB 19.1, the Contract price shall be determined as follows:

- (a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor specified **in the BDS**;
- (b) in the case of adjustable price contracts, no adjustment shall be made; or
- (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

20. Bid Security

20.1 The Bidder shall furnish as part of its Bid, either a Bid-Securing Declaration or a Bid security, as specified **in the BDS**, in original form and, in the case of a Bid Security, in the amount and currency specified **in the BDS**.

20.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.

20.3 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security shall be a demand guarantee, and in any of the following forms at the Bidder's option:

- (a) an unconditional guarantee issued by a bank or non-bank financial institution (such as an insurance, bonding or surety company);

- (b) an irrevocable letter of credit;
- (c) a cashier's or certified check; or
- (d) another security specified **in the BDS**,

from a reputable source and an eligible country. If the unconditional guarantee is issued by a non-bank financial institution located outside the Employer's Country, the issuing non-bank financial institution shall have a correspondent financial institution located in the Employer's Country to make it enforceable, unless the Employer has agreed in writing, prior to Bid submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Bid security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Employer prior to Bid submission. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 19.2.

- 20.4 If a Bid Security is specified pursuant to ITB 20.1, any Bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as non-responsive.
- 20.5 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 46.
- 20.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security.
- 20.7 The Bid Security may be forfeited:
 - (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid or any extended date provided by the Bidder; or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 45; or
 - (ii) furnish a performance security in accordance with ITB 46.
- 20.8 The Bid Security or Bid-Securing Declaration of a JV must be in the name of the JV that submits the Bid. If the JV has not been legally constituted into a legally enforceable JV at the time of Bidding, the Bid security or Bid-Securing Declaration shall be in the names of all

future members as named in the letter of intent referred to in ITB 4.1 and ITB 12.2.

- 20.9 If a Bid Security is not required in the BDS, pursuant to ITB 20.1, and
- (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid, or any extended date provided by the Bidder; or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 45; or
 - (ii) furnish a performance security in accordance with ITB 46;

the Borrower may, if provided for **in the BDS**, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as stated **in the BDS**.

21. Format and Signing of Bid

- 21.1 The Bidder shall prepare one original of the documents comprising the Bid as described in ITB 12, bound with the volume containing the Form of Bid, and clearly marked “Original.” In addition, the Bidder shall submit copies of the Bid, in the number specified **in the BDS**, and clearly marked as “Copies.” In the event of discrepancy between them, the original shall prevail.
- 21.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
- 21.3 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified **in the BDS** and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.
- 21.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 21.5 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

22. Sealing and Marking of Bids

- 22.1 The Bidder shall deliver the Bid in a single, sealed envelope. Within the single envelope the Bidder shall place the following separate, sealed envelopes:
- (a) in an envelope marked “ORIGINAL”, all documents comprising the Bid, as described in ITB 12; and
 - (b) in an envelope marked “COPIES”, all required copies of the Bid; and
 - (c) if alternative Bids are permitted in accordance with ITB 14, and if relevant:
 - (i) in an envelope marked “ ORIGINAL - ALTERNATIVE BID”, the alternative Bid; and
 - (ii) in the envelope marked “COPIES – ALTERNATIVE BID” all required copies of the alternative Bid.
- 22.2 The inner and outer envelopes shall:
- (a) bear the name and address of the Bidder;
 - (b) be addressed to the Employer in accordance with ITB 23.1;
 - (c) bear the specific identification of this Bidding process specified in accordance with BDS 1.1; and
 - (d) bear a warning not to open before the time and date for Bid opening.
- 22.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

23. Deadline for Submission of Bids

- 23.1 Bids must be received by the Employer at the address and no later than the date and time specified **in the BDS**. When so specified **in the BDS**, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures specified **in the BDS**.
- 23.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 9, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

- 24. Late Bids** 24.1 The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 23. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.
- 25. Withdrawal, Substitution and Modification of Bids** 25.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB 21.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:
- (a) prepared and submitted in accordance with ITB 21 and ITB 22 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and
 - (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 23.
- 25.2 Bids requested to be withdrawn in accordance with ITB 25.1 shall be returned unopened to the Bidders.
- 25.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the date of expiry of the Bid validity specified by the Bidder on the Letter of Bid or any extended date thereof.
- 26. Bid Opening** 26.1 Except as in the cases specified in ITB 23 and ITB 25.2, the Employer shall, at the Bid opening, publicly open and read out all Bids received by the deadline at the date, time and place specified **in the BDS** in the presence of Bidders’ designated representatives and anyone who choose to attend. Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 23.1, shall be as specified **in the BDS**.
- 26.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding Bid will be opened. No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.
- 26.3 Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Bid being substituted, and

the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening.

- 26.4 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening.
- 26.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Prices, per lot (contract) if applicable, including any discounts and alternative Bids; the presence or absence of a Bid Security or Bid-Securing Declaration, if required; and any other details as the Employer may consider appropriate.
- 26.6 Only Bids, alternative Bids and discounts that are opened and read out at Bid opening shall be considered further. The Letter of Bid and the priced Activity Schedule are to be initialed by representatives of the Employer attending Bid opening in the manner specified **in the BDS**.
- 26.7 The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 24.1).
- 26.8 The Employer shall prepare a record of the Bid opening that shall include, as a minimum:
- (a) the name of the Bidder and whether there is a withdrawal, substitution, or modification;
 - (b) the Bid Price, per lot (contract) if applicable, including any discounts; and
 - (c) any alternative Bids;
 - (d) the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required.
- 26.9 The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

- 27. Confidentiality** 27.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on

the Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 41.

27.2 Any effort by a Bidder to influence the Employer in the evaluation or contract award decisions may result in the rejection of its Bid.

27.3 Notwithstanding ITB 27.2, from the time of Bid opening to the time of Contract Award, if any Bidder wishes to contact the Employer on any matter related to the Bidding process, it should do so in writing.

28. Clarification of Bids

28.1 To assist in the examination, evaluation, and comparison of Bids, and qualification of the Bidders, the Employer may, at the Employer's discretion, ask any Bidder for clarification of its Bid including breakdowns of the prices in the Activity Schedule, and other information that the Employer may require. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 32.

28.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

29. Deviations, Reservations, and Omissions

29.1 During the evaluation of Bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the bidding document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.

30. Determination of Responsiveness

30.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 12.

30.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- (a) if accepted, would:

- (i) affect in any substantial way the scope, quality, or performance of the Non-Consulting Services specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the Contract; or
 - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
- 30.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 17 and ITB 18, in particular, to confirm that all requirements of Section VII, Employer's Requirements have been met without any material deviation or reservation, or omission.
- 30.4 If a Bid is not substantially responsive to the requirements of bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 31. Nonconformities, Errors and Omissions**
- 31.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.
- 31.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 31.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component by adding the average price of the item or component quoted by substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.
- 32. Correction of Arithmetical Errors**
- 32.1 Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:
- (a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall

- be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 32.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 32.1, shall result in the rejection of the Bid.
- 33. Conversion to Single Currency**
- 33.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as specified **in the BDS**.
- 34. Margin of Preference**
- 34.1 A margin of preference shall not apply.
- 35. Evaluation of Bids**
- 35.1 The Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies, the Employer shall determine the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:
- (a) substantially responsive to the bidding document; and
 - (b) the lowest evaluated cost.
- 35.2 In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid cost by adjusting the Bid price as follows:
- (a) price adjustment for correction of arithmetic errors in accordance with ITB 32.1;
 - (b) price adjustment due to discounts offered in accordance with ITB 15.4;
 - (c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITB 33;

- (d) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31.3;
 - (e) excluding provisional sums and the provision, if any, for contingencies in the Activity Schedule but including Daywork, when requested in the Specifications; and
 - (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 35.4 If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Letter of Bid, is specified in Section III, Evaluation and Qualification Criteria.
- 36. Comparison of Bids**
- 36.1 The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.2 to determine the Bid that has the lowest evaluated cost.
- 37. Abnormally Low Bids**
- 37.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.
- 37.2 In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.
- 37.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.
- 38. Qualification of the Bidder**
- 38.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated cost and substantially responsive Bid is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 38.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the

Bidder, pursuant to ITB 18. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors or any other firm(s) different from the Bidder that submitted the Bid.

- 38.3 Prior to Contract award, the Employer will verify that the successful Bidder (including each member of a JV) is not disqualified by the Bank due to noncompliance with contractual SEA/SH prevention and response obligations. The Employer will conduct the same verification for each subcontractor proposed by the successful Bidder. If any proposed subcontractor does not meet the requirement, the Employer will require the Bidder to propose a replacement subcontractor.
- 38.4 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the Bidder who offers a substantially responsive Bid with the next lowest evaluated cost to make a similar determination of that Bidder's qualifications to perform satisfactorily.
- 39. Employer's Right to Accept Any Bid, and to Reject Any or All Bids**
- 39.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid securities, shall be promptly returned to the Bidders.
- 40. Standstill Period**
- 40.1 The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 44. The Standstill Period commences the day after the date the Employer has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply
- 41. Notification of Intention to Award**
- 41.1 The Employer shall send to each Bidder, the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:
- (a) the name and address of the Bidder submitting the successful Bid;
 - (b) the Contract price of the successful Bid;
 - (c) the names of all Bidders who submitted Bids, and their Bid prices as readout and as evaluated;

- (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful;
- (e) the expiry date of the Standstill Period; and
- (f) instructions on how to request a debriefing or submit a complaint during the standstill period.

F. Award of Contract

42. Award Criteria

42.1 Subject to ITB 39, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:

- (a) substantially responsive to the bidding document; and
- (b) the lowest evaluated cost.

43. Notification of Award

43.1 Prior to the date of expiry of the Bid validity and upon expiry of the Standstill Period, specified in ITB 40.1, or any extension thereof, and, upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Service Provider in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").

43.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Employer;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) name of Bidders whose Bids were rejected and the reasons for their rejection;
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and

- (f) successful Bidder's Beneficial Ownership Disclosure Form, if specified in BDS ITB 45.1.

43.3 The Contract Award Notice shall be published on the Employer's website with free access if available, or in at least one newspaper of national circulation in the Employer's Country, or in the official gazette. The Employer shall also publish the contract award notice in UNDB online.

43.4 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

44. Debriefing by the Employer

44.1 On receipt of the Borrower's Notification of Intention to Award referred to in ITB 41, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

44.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Employer shall promptly inform, by the quickest means available, all Bidders of the extended standstill period.

44.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.

44.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.

45. Signing of Contract

45.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

- 45.2 The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.
- 46. Performance Security**
- 46.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC 3.9, using for that purpose the Performance Security Form included in Section X, Contract Forms, or another Form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country, unless the Employer has agreed in writing that a correspondent financial institution is not required.
- 46.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.
- 47. Adjudicator**
- 47.1 The Employer proposes the person named **in the BDS** to be appointed as Adjudicator under the Contract, at an hourly fee specified **in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this Bid, the Bidder should so state in the Bid. If, in the Letter of Acceptance, the Employer has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Special Conditions of Contract at the request of either party.
- 48. Procurement Related Complaint**
- 48.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II - Bid Data Sheet (BDS)

The following specific data for the Non-Consulting Services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

| ITB Reference | A. General |
|----------------|--|
| ITB 1.1 | <p>The reference number of the Request for Bids (RFB) is: MWE/NCONS/23-24/00115</p> <p>The Employer is: <i>Ministry of Water and Environment</i></p> <p>The name of the RFB is: <i>Non-consultancy services for Supporting Communities to Implement Priority Micro-Catchment Management Measures</i></p> <p>The number and identification of lots (contracts) comprising this RFB is:</p> <ul style="list-style-type: none"> <i>i. Lot 1: Supporting Communities in Kyabaganda, Kyezo and Mishumba micro-Catchments to Implement Priority micro-Catchment Management Measures</i> <i>ii. Lot 2: Supporting Communities in Kazinga-Kiruruma, Lower Mitano and Rushaya micro-Catchments to Implement Priority micro-Catchment Management Measures</i> |
| ITB 1.3 | The Intended Completion Date is: 24 Calendar Months for each lot from the effective date |
| ITB 2.1 | <p>The Borrower is: <i>Government of Uganda</i></p> <p>Loan or Financing Agreement amount: <i>US\$ 169.20 million</i></p> <p>The name of the Project is: <i>Irrigation for Climate Resilience Project (ICRP)</i></p> |
| ITB 4.1 | Maximum number of members in the Joint Venture (JV) shall be: <i>Two (2)</i> |
| ITB 4.5 | A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr . |
| | B. Contents of Bidding Document |
| ITB 8.1 | <p>For <u>Clarification of Bid purposes</u> only, the Employer's address is:</p> <p style="padding-left: 40px;">The Head, Procurement and Disposal Unit Ministry of Water and Environment Headquarters Plot 3-7, Kabalega Crescent, Luzira</p> |

| | |
|---------------------|---|
| | <p>Email: kateregga9@gmail.com <i>copy to:</i> iseganyi1988@gmail.com and Kajimujr@gmail.com</p> <p>Requests for clarification should be received by the Employer no later than: <i>Ten (10) calendar days prior to the submission deadline.</i></p> |
| | C. Preparation of Bids |
| ITB 11.1 | <p>The language of the Bid is: <i>English.</i></p> <p>All correspondence exchange shall be in <u>English</u> language.</p> <p>Language for translation of supporting documents and printed literature is <u>English</u>.</p> |
| ITB 12.1 (i) | <p>The Bidder shall submit the following additional documents in its Bid:</p> <p>Code of Conduct for Service Provider’s Personnel</p> <p>The Bidder shall submit its Code of Conduct that will apply to the Service Provider’s Personnel (as defined in GCC Sub- Clause 1.1) employed for the execution of Services (defined in GCC Sub- Clause 1.1) at the locations in the Employer’s country where the Services are required, to ensure compliance with the Service Provider’s Environmental and/or Social, as applicable, obligations under the Contract. The code of conduct shall adhere to, and be compliant with, the World Bank Environment and Social Policies and the World Bank Group Environment Health and Safety Guidelines. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks.</p> <p>Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks</p> <p>The Bidder shall submit Management Strategies and Implementation Plans (MSIPs) to manage the following key Environmental and Social (ES) risks including:</p> <ol style="list-style-type: none"> i. <i>Sexual Exploitation, and Abuse (SEA) prevention and response action plan</i> |
| ITB 14.1 | Alternative Bids <i>shall not be</i> considered. |
| ITB 14.2 | Alternative times for completion <i>shall not be</i> permitted. |
| ITB 14.3 | Alternative technical solutions shall be permitted for the following parts of the Services: N/A |

| | |
|--|--|
| ITB 15.7 | The prices quoted by the Bidder <i>shall</i> be subject to adjustment during the performance of the Contract. |
| ITB 16.1 | The Bidder <i>is</i> required to quote in the currency of the Employer's Country the portion of the Bid price that corresponds to expenditures incurred in that currency. |
| ITB 18.4 | Prequalification <i>has not been</i> undertaken. |
| ITB 19.1 | <i>The Bid shall be valid until 31st May, 2024</i> |
| ITB 19.3 (a) | The Bid price shall be adjusted by the following factor(s): N/A |
| ITB 20.1 | A Bid Security <i>shall be</i> required. The amount and currency of the Bid Security for each Lot shall be: UGX 61,000,000 (Uganda shillings: Sixty-One Million Only) or the equivalent in freely convertible currency. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 19.2. |
| ITB 20.3 (d) | Other types of acceptable securities: <u>None</u> |
| ITB 21.1 | In addition to the original of the Bid, the number of copies is: 03 |
| ITB 21.3 | The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Registered Powers of Attorney for Local suppliers and Notarised Powers of attorney for foreign suppliers. |
| D. Submission and Opening of Bids | |
| ITB 23.1 | For <u>Bid submission purposes</u> only, the Employer's address is: Procurement and Disposal Unit Ministry of Water and Environment Headquarters Plot 3-7, Kabalega Crescent, Luzira Kampala, Uganda The Bids must be submitted physically to the address above no later than: Date: 27th November, 2023 Time: 11:00 hours Ugandan Time <u>Late bids shall be rejected</u> |
| ITB 26.1 | The Bid opening shall take place at: |

| | |
|---|--|
| | <p>Ministry of Water and Environment Headquarters Plot 3-7, Kabalega Crescent, Luzira Kampala, Uganda</p> <p>Date: 27th November, 2023</p> <p>Time: 11:10am Ugandan Time</p> |
| ITB 26.6 | The Letter of Bid and priced Activity Schedule shall be initialled by 02 representatives of the Employer conducting Bid opening. Each Bid shall be initialled by all representatives and shall be numbered, any modification to the unit or total price shall be initialled by the Representative of the Employer. |
| E. Evaluation and Comparison of Bids | |
| ITB 33.1 | <p>The currency that shall be used for Bid evaluation and comparison purposes to convert at the selling exchange rate all Bid prices expressed in various currencies into a single currency is: <i>Uganda Shillings</i></p> <p>The source of exchange rate shall be: <i>Bank of Uganda</i></p> <p>The date for the exchange rate shall be deadline of bid submission</p> |
| F. Award of Contract | |
| ITB 45.1 | The successful Bidder <i>shall</i> submit the Beneficial Ownership Disclosure Form. |
| ITB 47 | The Adjudicator proposed by the Employer is <i>Prof. Jackson Mwakali</i> . The hourly fee for this proposed Adjudicator shall be <i>US\$50</i> . The biographical data of the proposed Adjudicator is indicated in the CV attached to this document. |
| ITB 48.1 | <p>The procedures for making a Procurement-related Complaint are detailed in the “Procurement Regulations for IPF Borrowers (Annex III).” If a Bidder wishes to make a Procurement-related Complaint, the Bidder should submit its complaint following these procedures, in writing (by the quickest means available, that is either by email or fax), to:</p> <p>Title/position: <i>Permanent Secretary</i></p> <p>Client: <i>Ministry of Water and Environment</i></p> <p>Email address: alfred.okidi64@gmail.com</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. the terms of the Bidding Documents; and |

| | |
|--|--|
| | 2. the Employer's decision to award the contract. |
|--|--|

Section III - Evaluation and Qualification Criteria

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The Employer shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying these criteria and methodologies, the Employer shall determine the Most Advantageous Bid. This is the Bid that has been determined to be:

- (a) substantially responsive to the bidding document, and
- (b) the lowest evaluated cost.

1. Evaluation (ITB 35.2(f))

In addition to the criteria listed in ITB 35.2 (a) to (e) the following criteria shall apply:

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Employer's Requirements.

1.2 Multiple Contracts

Pursuant to ITB 35.4 of the Instructions to Bidders, if Services are grouped in multiple contracts, evaluation will be as follows:

Award Criteria for Multiple Contracts [ITB 35.4]:

Lots

Bidders have the option to Bid for any one or more lots. Bids will be evaluated lot-wise, taking into account discounts offered, if any, after considering all possible combination of lots. The contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined lots, subject to the selected Bidder(s) meeting the required qualification criteria for lot or combination of lots as the case may be.

1.3 Alternative Times for Completion

An alternative Completion Time, if permitted under ITB 14.2, will be evaluated as follows: N/A

1.4 Alternative Technical Solutions for specified parts of the Services

If permitted under ITB 14.3, will be evaluated as follows: N/A

2. Qualification

2.1 All Bidders shall include the following information and documents with their Bids:

- (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; Registered power of attorney of the signatory of the Bid to commit the Bidder;
- (b) total monetary value of Services performed for each of the last five years;

- (c) experience in Services of a similar nature and size for each of the last five years, and details of Services under way or contractually committed; and names and address of clients who may be contacted for further information on those contracts;
- (d) list of major items of equipment proposed to carry out the Contract;
- (e) qualifications and experience of key site management and technical personnel proposed for the Contract;
- (f) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years;
- (g) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);
- (h) authority to the Employer to seek references from the Bidder's bankers;
- (i) information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount;
- (j) proposals for subcontracting components of the Services amounting to more than 10 percent of the Contract Price; and
- (k) Environmental and Social (ES) past performance declaration (see below at the end of this section).

Bidders shall include with their bids the Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration, using the form in Section IV.

Bids submitted by a joint venture of two or more firms as members shall comply with the following requirements:

- (a) the Bid shall include all the information listed above for each joint venture member;
- (b) the Bid shall be signed so as to be legally binding on all members;
- (c) the Bid shall include a copy of the agreement entered into by the joint venture members defining the division of assignments to each member and establishing that all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms; alternatively, a Letter of Intent to execute a joint venture agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed agreement;
- (d) one of the members shall be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture; and
- (e) the execution of the entire Contract, including payment, shall be done exclusively with the member in charge.

2.2 Minimum Qualification Requirements

To qualify for award of the Contract, Bidders shall meet the following minimum qualifying criteria:

- (a) annual volume of Services of at least the amount specified **in Table a) below**;
- (b) experience as service provider in the provision of at least two service contracts of a nature and complexity similar to the Services over the last 5 years (to comply with this requirement, Services contracts cited should be at least 70 percent complete) as specified **in Table a) below**;
- (c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment listed **in Table a) below**; **Not applicable**
- (d) Suitably qualified key personnel specified **in Table a) below** and other key personnel that the Bidder considers appropriate to perform the Services; and
- (e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount specified **in Table a) below**.

A consistent history of litigation or arbitration awards against the Bidder or any member of a Joint Venture may result in disqualification.

At the time of Contract award, successful Bidder (including each member of a JV) shall not be subject to disqualification by the Bank due to noncompliance with contractual SEA/SH prevention and response obligations. If any proposed subcontractor does not meet the requirement, the Employer will require the Bidder to propose a replacement subcontractor.

Table a): Qualification Requirements

| | |
|-----------------------|--|
| Joint Ventures | The information needed for Bids submitted by joint ventures is as follows: As above |
| Annual Volume | The minimum required annual volume of Services for the successful Bidder for each Lot in any of the last five years shall be UGX1,900,000,000 |
| Experience | <p>The experience required to be demonstrated by the Bidder should include as a minimum that he has executed during the last 5 years the following:</p> <p>Lot 1:</p> <ol style="list-style-type: none"> a. 100km of riverbanks restored in the last five years, b. 90ha of degraded wetlands restored in the last five years, c. 200ha of degraded land afforested in the last five years, and d. 80ha of land under soil and water conservation in the last five years. <p>Lot 2:</p> <ol style="list-style-type: none"> a. 100km of riverbanks restored in the last five years, b. 140ha of degraded wetlands restored in the last five years, c. 150ha of degraded land afforested in the last five years, and d. 75ha of land under soil and water conservation in the last five years. |

| | | |
|----------------------------|---|-----------------------------------|
| | | |
| Essential Equipment | The essential equipment to be made available for the Contract by the successful Bidder shall be: None | |
| Key Personnel | <u>Expert</u> | <u>Required no. for each Lot:</u> |
| | <u>Water/Environmental Management expert (team Leader):</u> A master's degree in Water or Environmental Engineering / Management / Science or related field with 8 years of general experience, 5 years of Specific experience in undertaking water related environmental assessments and in environment management planning. Experience in use of Geographical Information System tools will be an advantage. | <u>01</u> |
| | <u>Forestry/Tree growing Expert:</u> The Forestry/Tree growing Expert should have a Bachelor's degree in Forestry with experience of 10 years in tree growing. A minimum of 3 years' experience in training farmers in tree planting and agroforestry at community level will be needed. | <u>01</u> |
| | <u>Soil and Water Conservation Expert:</u> The Soil and Water Conservation Expert should have a Bachelor's degree in natural resources/ water resources management, Agriculture, or related field with experience of not less than 10 years in natural resources/water resources management. 3 years specific experience in construction of soil and water conservation structures, as well as community involvement and training farmers in catchment restoration measures will be needed. | <u>01</u> |
| | <u>Community Development Expert:</u> The Community Development Specialist shall hold at a minimum a Bachelor Degree in social sciences, social works & administration, development studies or community psychology. A Master's Degree in those fields will be an added advantage. The proposed expert should have at least 5years of working experience, of which 3 years should have been in natural resources management. The expert should have experience in undertaking impact, social and gender analysis. S/He should be knowledgeable in preparing appropriate awareness programs. The Expert shall be responsible for mobilizing and sensitization of communities during the project implementation process. | <u>01</u> |
| | The experts are expected to have local experience and knowledge of conditions in the micro-catchment. Ability to speak the local language by Community Development Expert will be required. The Service Provider shall include other | |

| | |
|-----------------------|---|
| | <p>technical, non-technical and support staff and any other additional expertise required to execute the assignment successfully.</p> <p>NOTE: The implementation of the two (2) lots shall be done simultaneously and therefore the Service Providers that intend to bid for more than one lot should note the following:</p> <ul style="list-style-type: none"> a) The Service Provider MUST submit different staff for each of the lots bid for. b) If the Service Provider submits the same personnel for more than one lot, the personnel will be considered available for the proposal submitted first and considered unavailable for the other proposal(s) and disqualified on that basis. The Service Provider should note this and ensure conformity |
| Liquid Assets | The minimum amount of liquid assets and/or credit facilities net of other contractual commitments of the successful Bidder for each Lot shall be: UGX 1,000,000,000 (Uganda Shillings: One Billion Only) |
| Subcontractors | Subcontractors' experience <i>shall not</i> be considered. |

2.3 Assessment of Joint Ventures

The figures for each of the members of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of (a), (b) and (e); however, for a joint venture to qualify the member in charge must meet at least 40 percent of those minimum criteria for an individual Bidder and other members at least 25% of the criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid.

2.4 Sub Contractors

Subcontractors' experience and resources *will not be considered* in determining the Bidder's compliance with the qualifying criteria, unless otherwise stated in the Qualification Requirements above.

Declaration: Environmental and Social (ES) past performance

The Bidder (if joint venture, each member of a joint venture) shall declare, using the form in Section IV, any contract that has been suspended or terminated and/or performance security called by an employer, in the past five years, for reasons of breach of environmental or social (including Sexual Exploitation and Abuse) contractual obligations. The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

Section IV- Bidding Forms

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Letter of Bid

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of RFB process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

We, the undersigned, declare that:

To: *[insert complete name of Employer]*

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 9;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's Country in accordance with ITB 4.7;
- (d) **Exploitation and Abuse (SEA) and/or Sexual Harassment (SH):** *[select the appropriate option from (i) to (iii) below and delete the others].*

We *[where JV, insert: "including any of our JV members"]*, and any of our subcontractors:

- (i) *[have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]*
- (ii) *[are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]*
- (iii) *[had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor.]*

- (e) **Conformity:** We offer to provide the Non-Consulting Services in conformity with the bidding document of the following: [*insert a brief description of the Non-Consulting Services*];
- (f) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (f) below is: [*Insert one of the options below as appropriate*]
Option 1, in case of one lot: Total price is: [*insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies*];
Or
Option 2, in case of multiple lots: (a) Total price of each lot [*insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies*]; and (b) Total price of all lots (sum of all lots) [*insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies*];
- (g) **Discounts:** The discounts offered and the methodology for their application are:
- (i) The discounts offered are: [*Specify in detail each discount offered.*]
- (ii) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify in detail the method that shall be used to apply the discounts*];
- (h) **Bid Validity Period:** Our Bid shall be valid until [*insert day, month and year in accordance with ITB 19.1*], and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (i) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
- (j) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other Bid(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 14;
- (k) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (l) **State-owned enterprise or institution:** [*select the appropriate option and delete the other*] [*We are not a state-owned enterprise or institution*] / [*We are a state-owned enterprise or institution but meet the requirements of ITB 4.6*];

- (m) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

| Name of Recipient | Address | Reason | Amount |
|-------------------|---------|--------|--------|
| | | | |
| | | | |
| | | | |
| | | | |

(If none has been paid or is to be paid, indicate “none.”)

- (n) *[Delete if not appropriate, or amend to suit]* We confirm that we understand the provisions relating to Standstill Period as described in this bidding document and the Procurement Regulations.
- (o) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (p) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
- (q) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.

Name of the Bidder: **[insert complete name of the Bidder]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder: ***[insert complete name of person duly authorized to sign the Bid]*

Title of the person signing the Bid: *[insert complete title of the person signing the Bid]*

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

*: In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder.

**.: Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of Bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

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| |
|--|
| 1. Bidder's Name <i>[insert Bidder's legal name]</i> |
| 2. In case of JV, legal name of each member : <i>[insert legal name of each member in JV]</i> |
| 3. Bidder's actual or intended country of registration: <i>[insert actual or intended country of registration]</i> |
| 4. Bidder's year of registration: <i>[insert Bidder's year of registration]</i> |
| 5. Bidder's Address in country of registration: <i>[insert Bidder's legal address in country of registration]</i> |
| 6. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i> |
| 7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the agency of the Employer |
| 8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. <i>[If required under BDS ITB 45.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]</i> |

Bidder's JV Members Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture]].

Date: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of Bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

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| |
|---|
| 1. Bidder's Name: <i>[insert Bidder's legal name]</i> |
| 2. Bidder's JV Member's name: <i>[insert JV's Member legal name]</i> |
| 3. Bidder's JV Member's country of registration: <i>[insert JV's Member country of registration]</i> |
| 4. Bidder's JV Member's year of registration: <i>[insert JV's Member year of registration]</i> |
| 5. Bidder's JV Member's legal address in country of registration: <i>[insert JV's Member legal address in country of registration]</i> |
| 6. Bidder's JV Member's authorized representative information Name: <i>[insert name of JV's Member authorized representative]</i> Address: <i>[insert address of JV's Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Member authorized representative]</i> Email Address: <i>[insert email address of JV's Member authorized representative]</i> |
| 7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITB 4.6. |
| 8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. <i>[If required under BDS ITB 45.1, the successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]</i> |

Qualification Information

- 1. Individual Bidders or Individual Members of Joint Ventures**
- 1.1 Constitution or legal status of Bidder: *[attach copy]*
- Place of registration: *[insert]*
Principal place of business: *[insert]*
Power of attorney of signatory of Bid: *[attach]*
- 1.2 Total annual volume of Services performed in five years, in the internationally traded currency specified **in the BDS**: *[insert]*
- 1.3 Services performed as prime Service Provider on the provision of Services of a similar nature and volume over the last five years. The values should be indicated in the same currency used for Item 1.2 above. Also list details of Services under way or committed, including expected completion date.

| Project name and country | Name of employer and contact person | Type of Services provided and year of completion | Value of contract |
|--------------------------|-------------------------------------|--|-------------------|
| (a) | | | |
| (b) | | | |

- 1.4 Major items of Service Provider's Equipment proposed for carrying out the Services. List all information requested below.

| Item of equipment | Description, make, and age (years) | Condition (new, good, poor) and number available | Owned, leased (from whom?), or to be purchased (from whom?) |
|-------------------|------------------------------------|--|---|
| (a) | | | |
| (b) | | | |

- 1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer to GCC Clause 4.1.

| Position | Name | Years of experience (general) | Years of experience in proposed position |
|----------|------|-------------------------------|--|
| (a) | | | |

- (b) 1.6 Proposed subcontracts and firms involved. Refer to GCC Clause 3.5.

| Sections of the Services | Value of subcontract | Subcontractor (name and address) | Experience in providing similar Services |
|--------------------------|----------------------|----------------------------------|--|
| (a) | | | |
| (b) | | | |

- 1.7 Financial reports for the last five years: balance sheets, profit and loss statements, auditors’ reports, etc. List below and attach copies.
- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents. We certify/confirm that we comply with eligibility requirements as per ITB 4.
- 1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.
- 1.10 Information regarding any litigation, current or within the last five years, in which the Bidder is or has been involved.

| Other party(ies) | Cause of dispute | Details of litigation award | Amount involved |
|------------------|------------------|-----------------------------|-----------------|
| (a) | | | |
| (b) | | | |

- 1.11 Statement of compliance with the requirements of ITB 4.2.
- 1.12 Environmental and Social (ES) performance declaration, if required, and Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration, using the forms included in this Section IV.
- 1.13 Proposed Program (service work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding document.

2. Joint Ventures

- 2.1 The information listed in 1.1 - 1.12 above shall be provided for each member of the joint venture.
- 2.2 The information in 1.13 above shall be provided for the joint venture.

- 2.3 Attach the power of attorney of the signatory(ies) of the Bid authorizing signature of the Bid on behalf of the joint venture.
 - 2.4 Attach the Agreement among all members of the joint venture (and which is legally binding on all members), which shows that
 - (a) all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
 - (b) one of the members will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture; and
 - (c) the execution of the entire Contract, including payment, shall be done exclusively with the member in charge.
- 3. Additional Requirements**
- 3.1 Bidders should provide any additional information required **in the BDS.**

Environmental and Social Performance Declaration

[Note to the Employer: Include this form if applicable in accordance with Section III]

[The following table shall be filled in for the Bidder and each member of a Joint Venture]

Bidder’s Name: *[insert full name]*
 Date: *[insert day, month, year]*
 Joint Venture Member’s Name: *[insert full name]*
 RFB No. and title: *[insert RFB number and title]*
 Page *[insert page number]* of *[insert total number]* pages

| Environmental and Social Performance Declaration | | | |
|--|---|--|--|
| <input type="checkbox"/> No suspension or termination of contract: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social (ES) performance, in the past five years. | | | |
| <input type="checkbox"/> Declaration of suspension or termination of contract: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social (ES) performance, in the past five years. Details are described below: | | | |
| Year | Suspended or terminated portion of contract | Contract Identification | Total Contract Amount (current value, currency, exchange rate and US\$ equivalent) |
| <i>[insert year]</i> | <i>[insert amount and percentage]</i> | Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. gender-based violence; sexual exploitation or sexual abuse breaches]</i> | <i>[insert amount]</i> |
| <i>[insert year]</i> | <i>[insert amount and percentage]</i> | Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i> | <i>[insert amount]</i> |
| ... | ... | <i>[list all applicable contracts]</i> | ... |

| Performance Security called by an employer(s) for reasons related to ES performance | | |
|--|---|---|
| Year | Contract Identification | Total Contract Amount (current value, currency, exchange rate and US\$ equivalent) |
| <i>[insert year]</i> | Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for calling of performance security: <i>[indicate main reason(s) e.g. gender-based violence; sexual exploitation, or sexual abuse breaches]</i> | <i>[insert amount]</i> |

Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration

[The following table shall be filled in for the Bidder, each member of a Joint Venture and each subcontractor proposed by the Bidder]

Bidder's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member's or Subcontractor's Name: *[insert full name]*

RFB No. and title: *[insert RFB number and title]*

Page *[insert page number]* of *[insert total number]* pages

| SEA and/or SH Declaration |
|---|
| <p>We:</p> <p><input type="checkbox"/> (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations</p> <p><input type="checkbox"/> (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations</p> <p><input type="checkbox"/> (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor.</p> |
| <p><i>[If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]</i></p> |

Schedule Forms

The Bidder shall fill in these Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Activity Schedules** shall coincide with the List of Non-Consulting Services specified in the Employer's Requirements.

Activity Schedule

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--|----------------------------------|------|---|---------------------------------|-------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service N° | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| <i>[insert number of the Service]</i> | <i>[insert name of Services]</i> | | <i>[insert delivery date at place of final destination per Service]</i> | <i>[insert number of units]</i> | <i>[insert unit price per unit]</i> | <i>[insert total price per unit]</i> |
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| | | | | | | |
| Total Bid Price | | | | | | |

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

Method Statement

(Provide a detailed description of the proposed method statement to execute the works)

The Bidder shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 12.1 (i) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Service Provider, and its Subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Employer's Requirements in Section VII.

Code of Conduct for Service Provider's Personnel Form (ES)

Note to the Bidder:

The minimum content of the Code of Conduct form as set out by the Employer shall not be substantially modified. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

CODE OF CONDUCT FOR SERVICE PROVIDER'S PERSONNEL

We are the Service Provider, [*enter name of Service Provider*]. We have signed a contract with [*enter name of Employer*] for [*enter description of the Services*]. The Services will be carried out at [*enter the locations in the Employer's country where the Services are required, as applicable*]. Our contract requires us to implement measures to address *environmental and social risks* related to the Services.

This Code of Conduct is part of our measures to deal with environmental and social risks [*Note to Employer: depending on the nature of the contract and assessed risks, this may be replaced with social risks*] related to the Services.

All personnel that we utilize in the execution of the Services, including the staff, labor and other employees of us and each Subcontractor, and any other personnel assisting us in the execution of the Services, are referred to as Service Provider's Personnel.

This Code of Conduct identifies the behavior that we require from the Service Provider's Personnel employed for the execution of the Services at the locations in the Employer's country where the Services are provided.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Service Provider's Personnel employed for the execution of the Services at the locations in the Employer's country where the Services are provided shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Service Provider's Personnel and any other person;
3. maintain a safe working environment including by:

- a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
 5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
 6. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Service Provider's or Employer's Personnel;
 7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
 8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
 9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
 10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation and Abuse, and Sexual Harassment (SH);
 11. report violations of this Code of Conduct; and
 12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of applicable grievance mechanism for Service Provider's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the individual, with relevant experience, designated by the Service provider to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Service Provider's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all

due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate. There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by the Service Provider’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR SERVICE PROVIDER’S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Service Provider’s contact person(s) with relevant experience*] requesting an explanation.

Name of Service Provider’s Personnel: [insert name] Signature:

Date: (day month year): _____

Countersignature of authorized representative of the Service Provider:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting SEA and behaviors constituting SH

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM**BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND
BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)**

The following non-exhaustive list is intended to illustrate types of prohibited behaviors.

(1) **Examples of sexual exploitation and abuse** include, but are not limited to:

- A Service Provider's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Service Provider's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Service Provider's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Service Provider's Personnel denies a person access to the locations where the Services are executed unless he/she performs a sexual favor.
- A Service Provider's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) **Examples of sexual harassment in a work context**

- A Service Provider's Personnel comment on the appearance of another Service Provider's Personnel (either positive or negative) and sexual desirability.
- When a Service Provider's Personnel complains about comments made by another Service Provider's Personnel on his/her appearance, the other Service Provider's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Service Provider's Personnel or Employer's Personnel by another Service Provider's Personnel.
- A Service Provider's Personnel tells another Service Provider's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Work Plan

The Service provider shall provide the work plan including and not limited to:

1. Site Organization

Provide a detailed description/illustration of the proposed site organization in terms of personnel, materials storage, etc.

2. Mobilization Schedule

Provide a detailed description/illustration of the proposed mobilization schedule for materials, equipment, labour etc. including sources.

Others - implementation Schedule

Provide a detailed description/illustration of the proposed implementation schedule.

Form of Bid Security (Bank Guarantee)

[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Employer to insert its name and address]*

RFB No.: *[Employer to insert reference number for the Request for Bids]*

Alternative No.: *[Insert identification No if this is a Bid for an alternative]*

Date: *[Insert date of issue]*

BID GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that _____ *[insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]* (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Bid (hereinafter called "the Bid") for the execution of _____ under Request for Bids No. _____ ("the RFB").

Furthermore, we understand that, according to the Beneficiary's conditions, Bids must be supported by a Bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

- (a) has withdrawn its Bid prior to the Bid validity expiry date set forth in the Bidder's Letter of Bid, or any extended date provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary prior to the expiry date of the Bid validity or any extension thereto provided by the Applicant, (i) has failed to sign the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the Contract agreement signed by the Applicant and the performance security issued to the Beneficiary in relation to such Contract agreement; or (b) if the Applicant is not the successful

Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Bidding process; or (ii) twenty-eight days after the expiry date of the Bid validity.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

[Signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

In reference to ITB 4.8, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*

Under ITB 4.8 (b) *[insert a list of the countries following approval by the Bank to apply the restriction or state "none"]*

Section VI - Fraud and Corruption

(Section VI shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-

contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

Part II – Employer’s Requirement

Section VII - Activity Schedule

1. Project area and technical specifications

The technical requirements and specifications, including the project area coverage, general information, scope and other requirements as well as product and deliverables are provided in the ANNEX I below.

2. Project Time Schedule:

The Service provider must comply with the Time Schedules for different deliverables as provided in ANNEX I below.

The assignment in each lot will be undertaken over a maximum period of 24 calendar months.

3. Price Schedule (Bill of Quantities)

The Price schedule(s) for each lot is elaborated below:

7.1: Activity Schedule - LOT 1 (Kyabaganda, Kyezo, Mishumba Micro-Catchments)

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ | |
|---|--|------------------|---------------|----------------------------|------------|---|--|
| | | | | | | Page N° _____ of _____ | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) | |
| Schedule 1: General Items | | | | | | | |
| A | General Items | | | | | | |
| A.1 | Organize four 5-day exchange visits and study tours to other catchments (one of the 4 WMZs) for farmers and communities responsible for restoration activities (with maximum of 50 people per visit). | No. of Visits | Month 19 | 4 | | | |
| A.2 | Organise quarterly 1-hour local radio talk shows on the ongoing activities in the micro catchments. | Quarters | Quarterly | 8 | | | |
| A.3 | Allow provisional sum of Ug. shs. 60,000,000 for IEC materials throughout the project | Ls | Quarterly | 1 | | | |
| A.4 | Allow provisional sum of Ug. shs. 5,000,000 for provision of as built drawings and maps including operation and maintenance manuals | Ls | Month 20 | 1 | | | |
| A.5 | Allow provisional sum of Ug. shs. 2,000,000 for monthly involvement of CMCs, SCMCs and mCMCs members in project activities | Months | Monthly | 24 | | | |
| A.6 | Allow provisional sum of Ug. shs. 3,000,000 for monthly site meetings | Months | Monthly | 24 | | | |
| A.7 | Establish, maintain site signboards until the issue of the Taking-over Certificate | No. | Month 2 | 6 | | | |
| Sub Total Schedule 1 | | | | | | | |
| Schedule 2: Support communities to restore degraded stretches of riverbanks in Kyabaganda micro-catchment through use of catchment management measures | | | | | | | |
| B | Restore 91km (45.5 km on each side) of the degraded stretches of the major rivers in Kyabaganda micro-catchment through use of catchment management measures | | | | | | |
| B.1 | Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 4 | | | |
| B.2 | Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop | no. of trainings | Month 7 | 4 | | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
|--------------------------------------|--|-----------------|---------------|----------------------------|------------|------------------------------------|
| | | | | | | RFB No: _____ |
| | | | | | | Alternative No: _____ |
| | | | | | | Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | site specific riverbank protection and restoration action plans (50 members per training for 2 days) | | | | | |
| B.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 200 | | |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |
| B.4 | Provide 72,072 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities: | | | | | |
| a | Musisi | No. | Month 7 | 18018 | | |
| b | Bathdavia | No. | Month 7 | 18018 | | |
| c | Muvule | No. | Month 7 | 18018 | | |
| d | Mahogany | No. | Month 7 | 18018 | | |
| B.5 | Demarcate off and re-vegetate 91km (45.5 km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | Km | Month 14 | 91 | | |
| B.6 | Procure 13,650 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 13,650 | | |
| B.7 | Stabilize 45.5 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 45.5 | | |
| B.8 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| B.9 | Organise micro-catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--|---|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| B.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | Month 7 | 2 | | |
| Sub Total Schedule 2 | | | | | | |
| Schedule 3: Support communities to restore degraded stretches of riverbanks in Kyezo micro-catchment through use of catchment management measures | | | | | | |
| C | Restore 52.54km (26.27 km on each side) of the degraded stretches of the major rivers in Kyezo Micro-catchment through use of catchment management measures | | | | | |
| C.1 | Mobilise 200 community members, raise their awareness on the importance of river bank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 4 | | |
| C.2 | Conduct trainings for 200 community members to undertake and adopt the river bank protection and restoration measures including river bank stabilisation using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days) | no. of trainings | Month 7 | 4 | | |
| C.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 200 | | |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |
| C.4 | Provide 41,612 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities | | | | | |
| a | Musisi | No. | Month 7 | 10403 | | |
| b | Bathdavia | No. | Month 7 | 10403 | | |
| c | Muvule | No. | Month 7 | 10403 | | |
| d | Mahogany | No. | Month 7 | 10403 | | |
| C.5 | Demarcate off and re-vegetate 52.54km (26.27 km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, | Km | Month 14 | 52.54 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|---|---|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | | | | | |
| C.6 | Procure 7,881 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 7,881 | | |
| C.7 | Stabilize 26.27 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 26.27 | | |
| C.8 | Allow provisional sum of shs. 5,00,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| C.9 | Organise micro-catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |
| C.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | Month 7 | 2 | | |
| Sub Total Schedule 3 | | | | | | |
| Schedule 4: Support communities to restore degraded stretches of riverbanks in Mishumba micro-catchment through use of catchment management measures | | | | | | |
| D | Restore 80.68 km (40.34 km on each side) of the degraded stretches of the major rivers in Mishumba Micro catchment through use of catchment management measures | | | | | |
| D.1 | Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 4 | | |
| D.2 | Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days) | no. of trainings | Month 7 | 4 | | |
| D.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 200 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|--|-----------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |
| D.4 | Provide 63,900 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities: | | | | | |
| a | Musisi | No. | Month 7 | 15,975 | | |
| b | Bathdavia | No. | Month 7 | 15,975 | | |
| c | Muvule | No. | Month 7 | 15,975 | | |
| d | Mahogany | No. | Month 7 | 15,975 | | |
| D.5 | Demarcate off and re-vegetate 80.68km (40.34 km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | Km | Month 14 | 80.68 | | |
| D.6 | Procure 12,102 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 12,102 | | |
| D.7 | Stabilize 40.34 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 40.34 | | |
| D.8 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| D.9 | Organise micro-catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |
| D.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | Month 7 | 2 | | |
| Sub Total Schedule 4 | | | | | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| Schedule 5: Support demarcation and restoration of degraded Wetlands to perform their ecological and socio-economic functions in Kyabaganda micro-catchment | | | | | | |
| E | Restore 21.2ha of the degraded wetlands in Kyabaganda micro-catchment through use of catchment management measures | | | | | |
| E.1 | Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 10 | 4 | | |
| E.2 | Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organise members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days) | no. of trainings | Month 12 | 4 | | |
| E.3 | Provide tools to communities to implement wetland protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 12 | 200 | | |
| b | Spades | No. | Month 12 | 25 | | |
| c | Panga | No. | Month 12 | 25 | | |
| d | Pick axes | No. | Month 12 | 25 | | |
| e | Gum boots | No. | Month 12 | 200 | | |
| f | Wheel barrows | No. | Month 12 | 25 | | |
| E.3 | Procure 1,696 Sisal stems as local planting materials to demarcate the 21.2ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m) | no. of Stems | Month 13 | 1696 | | |
| E.4 | Demarcate off 21.2ha buffer zone of the wetland using sisal stems (80 stems per ha at a spacing of 5m by 5m) | Ha | Month 18 | 21.2 | | |
| E.5 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| E.6 | Engage (for 5 days) and strengthen 50 people of the sub catchment and micro-catchment structures to develop/enforce Wetlands management plans and enforce bye laws for the demarcated wetlands in the sub catchment | No. of people | Month 16 | 50 | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| E.7 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival (8 Senior technical officials from MWE, DLGs). | Quarters | Quarterly | 2 | | |
| Sub Total Schedule 5 | | | | | | |
| Schedule 6: Support demarcation and restoration of degraded Wetlands to perform their ecological and socio-economic functions in Kyezo micro-catchment | | | | | | |
| F | Restore 166.29ha of the degraded wetlands in Kyezo micro-catchment through use of catchment management measures | | | | | |
| F.1 | Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 10 | 4 | | |
| F.2 | Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organise members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days) | no. of trainings | Month 12 | 4 | | |
| F.3 | Provide tools to communities to implement wetland protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 12 | 200 | | |
| b | Spades | No. | Month 12 | 25 | | |
| c | Panga | No. | Month 12 | 25 | | |
| d | Pick axes | No. | Month 12 | 25 | | |
| e | Gum boots | No. | Month 12 | 200 | | |
| f | Wheel barrows | No. | Month 12 | 25 | | |
| F.4 | Procure 13,303 Sisal stems as local planting materials to demarcate the 166.29ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m) | no. of Stems | Month 13 | 13,303 | | |
| F.5 | Demarcate off 166.29ha buffer zone of the wetland using sisal stems (80 stems per ha at a spacing of 5m by 5m) | Ha | Month 18 | 166.29 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| F.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| F.7 | Engage (for 5 days) and strengthen 50 people of the sub catchment and micro-catchment structures to develop/enforce Wetlands management plans and enforce bye laws for the demarcated wetlands in the sub catchment | No. of people | Month 16 | 50 | | |
| F.8 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival (8 Senior technical officials from MWE, DLGs). | Quarters | Quarterly | 2 | | |
| Sub Total Schedule 6 | | | | | | |
| Schedule 7: Support communities to implement soil and water conservation measures on priority hotspots in Kyabaganda Micro catchment. | | | | | | |
| G | Promote and support establishment of soil and water conservation measures on 55 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | |
| G.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | |
| G.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | no. of trainings | Month 5 | 4 | | |
| G.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 20 | | |

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|---|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| d | Pick axes | No. | Month 5 | 20 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | |
| g | Wheel barrows | No. | Month 5 | 25 | | |
| G.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | |
| G.5 | Support individual farmers to establish 45 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 45 | | |
| G.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| G.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 7 | | | | | | |
| Schedule 8: Support communities to implement soil and water conservation measures on priority hotspots in Kyezo Micro catchment. | | | | | | |
| H | Promote and support establishment of soil and water conservation measures on 55 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | |
| H.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | |
| H.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs, grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | no. of trainings | Month 5 | 4 | | |

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|---|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| H.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 20 | | |
| d | Pick axes | No. | Month 5 | 20 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | |
| g | Wheel barrows | No. | Month 5 | 25 | | |
| H.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | |
| H.5 | Support individual farmers to establish 45 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 45 | | |
| H.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| H.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 8 | | | | | | |
| Schedule 9: Support communities to implement soil and water conservation measures on priority hotspots Mishumba Micro catchment. | | | | | | |
| I | Promote and support establishment of soil and water conservation measures on 55 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | |
| I.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | |
| I.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, | no. of trainings | Month 5 | 4 | | |

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|---|--|----------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | percolation ditches; grow trees, shrubs grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | | | | | |
| I.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 20 | | |
| d | Pick axes | No. | Month 5 | 20 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | |
| g | Wheel barrows | No. | Month 5 | 25 | | |
| I.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | |
| I.5 | Support individual farmers to establish 45 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 45 | | |
| I.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| I.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 9 | | | | | | |
| Schedule 10: Support communities to restore of deforested and degraded communal and individual land in Kyabaganda Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| J | Restoration of 140 ha of degraded communal and individual land in Kyabaganda Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| J.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | |
| J.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | |
| J.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 40 | | |
| d | Pickaxes | No. | Month 5 | 40 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 40 | | |
| g | Wheelbarrows | No. | Month 5 | 40 | | |
| J.4 | Provide 56,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 4,000 | | |
| b | Teak | No. | Month 5 | 4,000 | | |
| c | Bathdavia | No. | Month 5 | 4,000 | | |
| d | Muvule | No. | Month 5 | 4,000 | | |
| e | Taminalia | No. | Month 5 | 4,000 | | |
| f | Pine | No. | Month 5 | 4,000 | | |
| g | Grevillea | No. | Month 5 | 4,000 | | |
| h | Mahogany | No. | Month 5 | 4,000 | | |
| i | Jack fruit | No. | Month 5 | 8,000 | | |
| j | Guavas | No. | Month 5 | 8,000 | | |
| k | Avocado | No. | Month 5 | 8,000 | | |
| J.5 | Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 140 | | |
| J.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| J.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | quarterly | 2 | | |
| J.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | |
| Sub Total Schedule 10 | | | | | | |
| Schedule 11: Support communities to restore of deforested and degraded communal and individual land in Kyezo Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| K | Restoration of 140 ha of degraded communal and individual land in Kyezo Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | |
| K.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | |
| K.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | |
| K.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 40 | | |
| d | Pickaxes | No. | Month 5 | 40 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 40 | | |
| g | Wheelbarrows | No. | Month 5 | 40 | | |
| K.4 | Provide 56,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 4,000 | | |
| b | Teak | No. | Month 5 | 4,000 | | |
| c | Bathdavia | No. | Month 5 | 4,000 | | |
| d | Muvule | No. | Month 5 | 4,000 | | |
| e | Taminalia | No. | Month 5 | 4,000 | | |
| f | Pine | No. | Month 5 | 4,000 | | |
| g | Grevillea | No. | Month 5 | 4,000 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| h | Mahogany | No. | Month 5 | 4,000 | | |
| i | Jack fruit | No. | Month 5 | 8,000 | | |
| j | Guavas | No. | Month 5 | 8,000 | | |
| k | Avocado | No. | Month 5 | 8,000 | | |
| K.5 | Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 140 | | |
| K.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| K.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | quarterly | 2 | | |
| K.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | |
| Sub Total Schedule 11 | | | | | | |
| Schedule 12: Support communities to restore of deforested and degraded communal and individual land in Mishumba Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| L | Restoration of 140 ha of degraded communal and individual land in Mishumba Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | |
| L.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | |
| L.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | |
| L.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 40 | | |
| d | Pickaxes | No. | Month 5 | 40 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 40 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| g | Wheelbarrows | No. | Month 5 | 40 | | |
| L.4 | Provide 56,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 4,000 | | |
| b | Teak | No. | Month 5 | 4,000 | | |
| c | Bathdavia | No. | Month 5 | 4,000 | | |
| d | Muvule | No. | Month 5 | 4,000 | | |
| e | Taminalia | No. | Month 5 | 4,000 | | |
| f | Pine | No. | Month 5 | 4,000 | | |
| g | Grevillea | No. | Month 5 | 4,000 | | |
| h | Mahogany | No. | Month 5 | 4,000 | | |
| i | Jack fruit | No. | Month 5 | 8,000 | | |
| j | Guavas | No. | Month 5 | 8,000 | | |
| k | Avocado | No. | Month 5 | 8,000 | | |
| L.5 | Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 140 | | |
| L.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| L.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | quarterly | 2 | | |
| L.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | |
| Sub Total Schedule 12 | | | | | | |
| Schedule 13: Support communities to establish and promote alternative income generating activities for improved livelihoods in Kyabaganda Micro Catchment | | | | | | |
| M | Support Bee-keeping as alternative income generating activity | | | | | |
| M.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| M.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | No. of Trainings | Month 10 | 2 | | |
| M.3 | Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 80 | | |
| c) | 1 Smoker pump (metallic) for 4 groups | No. | Month 12 | 4 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups | No. | Month 12 | 8 | | |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups | No. | Month 12 | 4 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 4 groups) | No. | Month 12 | 4 | | |
| g) | 1 Kg of bee wax for each of 4 groups | No. | Month 12 | 4 | | |
| h) | 2 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups | No. | Month 12 | 8 | | |
| i) | 1 bee knife and 1 Bee brush for each of 4 groups | No. | Month 12 | 4 | | |
| j) | Provide 1No. Honey extractor to each of the 4 groups | No. | Month 12 | 4 | | |
| M.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | No. of apiaries | Month 15 | 4 | | |
| M.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |

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|--------------------------------------|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| N | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |
| N.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| N.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| N.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| N.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| O | Support fruit growing as alternative income generating activity | | | | | |
| O.1 | Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| O.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling). (1no. training per group for 2 days, 25members per group) | No. of trainings | Month 14 | 4 | | |
| O.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| O.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
|--------------------------------------|--|------------------|---------------|----------------------------|------------|------------------------------------|
| | | | | | | RFB No: _____ |
| | | | | | | Alternative No: _____ |
| | | | | | | Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| P | Promote fish farming as alternative income generating activity | | | | | |
| P.1 | Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting) | no. of Meetings | Month 14 | 3 | | |
| P.2 | Conduct One training (2-day) for each of the 2 farmer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management). | No. of trainings | Month 16 | 2 | | |
| P.3 | Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) to each of the farmer groups: | | | | | |
| a | Hoes incl. handles | No. | Month 16 | 80 | | |
| b | Spades | No. | Month 16 | 20 | | |
| c | Panga | No. | Month 16 | 20 | | |
| d | Pick axes | No. | Month 16 | 20 | | |
| e | Gum boots | No. | Month 16 | 80 | | |
| f | Wheel barrows | No. | Month 16 | 20 | | |
| P.4 | Construct 2 (20m x 15m) dug out shallow pond, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m ²) of the pond base | No. of ponds | Month 20 | 2 | | |
| P.5 | Prepare the 2 pond to receive fish: fill the pond with water; fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level); - if using compost, add about 10 kg per 100 m ² - if using animal manure, add per 100 m ² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure - if using plant wastes only, keep the fertilizing crib full and pack this material tightly in each crib | No. of ponds | Month 20 | 2 | | |
| P.6 | Stock the 2 pond each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes | Fingerlings | Month 21 | 9000 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|---|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| P.7 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| P.8 | Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fish ponds by the farmers) for 5 days per month for 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 13 | | | | | | |
| Schedule 14: Support communities to establish and promote alternative income generating activities for improved livelihoods in Kyezo Micro Catchment | | | | | | |
| Q | Support Bee-keeping as alternative income generating activity | | | | | |
| Q.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |
| Q.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | No. of Trainings | Month 10 | 2 | | |
| Q.3 | Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 80 | | |
| c) | 1 Smoker pump (metallic) for 4 groups | No. | Month 12 | 4 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups | No. | Month 12 | 8 | | |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups | No. | Month 12 | 4 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 4 groups) | No. | Month 12 | 4 | | |
| g) | 1 Kg of bee wax for each of 4 groups | No. | Month 12 | 4 | | |
| h) | 2 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups | No. | Month 12 | 8 | | |
| i) | 1 bee knife and 1 Bee brush for each of 4 groups | No. | Month 12 | 4 | | |
| j) | Provide 1No. Honey extractor to each of the 4 groups | No. | Month 12 | 4 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| Q.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | No. of apiaries | Month 15 | 4 | | |
| Q.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| R | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |
| R.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| R.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| R.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| R.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| S | Support fruit growing as alternative income generating activity | | | | | |
| S.1 | Identify and mobilise 100 fruit growing farmers, sensitize and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| S.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling). (1no. training per group for 2 days, 25members per group) | No. of trainings | Month 14 | 4 | | |
| S.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| S.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| T | Promote fish farming as alternative income generating activity | | | | | |
| T.1 | Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting) | no. of Meetings | Month 14 | 3 | | |
| T.2 | Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management). | No. of trainings | Month 16 | 2 | | |
| T.3 | Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) to each of the farmer groups: | | | | | |
| a | Hoes incl. handles | No. | Month 16 | 80 | | |
| b | Spades | No. | Month 16 | 20 | | |
| c | Panga | No. | Month 16 | 20 | | |
| d | Pick axes | No. | Month 16 | 20 | | |
| e | Gum boots | No. | Month 16 | 80 | | |
| f | Wheel barrows | No. | Month 16 | 20 | | |
| T.4 | Construct 2 (20m x 15m) dug out shallow pond, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the | No. of ponds | Month 20 | 2 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m ²) of the pond base | | | | | |
| T.5 | Prepare the 2 pond to receive fish: fill the pond with water; fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level); - if using compost, add about 10 kg per 100 m ² - if using animal manure, add per 100 m ² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure - if using plant wastes only, keep the fertilizing crib full and pack this material tightly in each crib | No. of ponds | Month 20 | 2 | | |
| T.6 | Stock the 2 pond each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes | Fingerlings | Month 21 | 9000 | | |
| T.7 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| T.8 | Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fish ponds by the farmers) for 5 days per month for 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 14 | | | | | | |
| Schedule 15: Support communities to establish and promote alternative income generating activities for improved livelihoods in Mishumba Micro Catchment | | | | | | |
| U | Support Bee-keeping as alternative income generating activity | | | | | |
| U.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |
| U.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; | No. of Trainings | Month 10 | 2 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|--|-----------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | | | | | |
| U.3 | Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 80 | | |
| c) | 1 Smoker pump (metallic) for 4 groups | No. | Month 12 | 4 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups | No. | Month 12 | 8 | | |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups | No. | Month 12 | 4 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 4 groups) | No. | Month 12 | 4 | | |
| g) | 1 Kg of bee wax for each of 4 groups | No. | Month 12 | 4 | | |
| h) | 2 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups | No. | Month 12 | 8 | | |
| i) | 1 bee knife and 1 Bee brush for each of 4 groups | No. | Month 12 | 4 | | |
| j) | Provide 1No. Honey extractor to each of the 4 groups | No. | Month 12 | 4 | | |
| U.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | No. of apiaries | Month 15 | 4 | | |
| U.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| V | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|--|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| V.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| V.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| V.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| V.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| W | Support fruit growing as alternative income generating activity | | | | | |
| W.1 | Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| W.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling). (1no. training per group for 2 days, 25members per group) | No. of trainings | Month 14 | 4 | | |
| W.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| W.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 15 | | | | | | |

| | | | | | | |
|--------------------------------------|-------------------------|------|---------------|----------------------------|------------|---|
| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | | | | | | |

COST SUMMARY

| Cost Category | Amount (UGX) |
|-----------------------|--------------|
| Sub Total Schedule 1 | |
| Sub Total Schedule 2 | |
| Sub Total Schedule 3 | |
| Sub Total Schedule 4 | |
| Sub Total Schedule 5 | |
| Sub Total Schedule 6 | |
| Sub Total Schedule 7 | |
| Sub Total Schedule 8 | |
| Sub Total Schedule 9 | |
| Sub Total Schedule 10 | |
| Sub Total Schedule 11 | |
| Sub Total Schedule 12 | |
| Sub Total Schedule 13 | |
| Sub Total Schedule 14 | |
| Sub Total Schedule 15 | |
| GRAND TOTAL | |

7.6: Activity Schedule - LOT 2 (Kazinga-Kiruruma, Lower Mitano, Rushaya Micro-Catchments)

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
|---|---|-----------------|---------------|----------------------------|------------|------------------------------------|
| | | | | | | RFB No: _____ |
| | | | | | | Alternative No: _____ |
| | | | | | | Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| Schedule 1: General Items | | | | | | |
| A | General Items | | | | | |
| A.1 | Organize four 5-day exchange visits and study tours to other catchments (one of the 4 WMZs) for farmers and communities responsible for restoration activities (with maximum of 50 people per visit). | No. of Visits | Month 19 | 4 | | |
| A.2 | Organise quarterly 1-hour local radio talk shows on the ongoing activities in the micro catchments. | Quarters | Quarterly | 4 | | |
| A.3 | Allow provisional sum of Ug. shs. 60,000,000 for IEC materials throughout the project | Ls | Quarterly | 1 | | |
| A.4 | Allow provisional sum of Ug. shs. 5,000,000 for provision of as built drawings and maps including operation and maintenance manuals | Ls | Month 20 | 1 | | |
| A.5 | Allow provisional sum of Ug. shs. 2,000,000 for monthly involvement of CMCs, SCMCs and mCMCs members in project activities | Months | Monthly | 24 | | |
| A.6 | Allow provisional sum of Ug. shs. 3,000,000 for monthly site meetings | Months | Monthly | 24 | | |
| A.7 | Establish, maintain site signboards until the issue of the Taking-over Certificate | No. | Month 2 | 6 | | |
| Sub Total Schedule 1 | | | | | | |
| Schedule 2: Support communities to restore degraded stretches of riverbanks in Kazinga-Kiruruma micro-catchment through use of catchment management measures | | | | | | |
| B | Restore 80km (40 km on each side) of the degraded stretches of the major rivers in Kyabaganda micro-catchment through use of catchment management measures | | | | | |
| B.1 | Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 4 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
|--------------------------------------|---|------------------|---------------|----------------------------|------------|------------------------------------|
| | | | | | | RFB No: _____ |
| | | | | | | Alternative No: _____ |
| | | | | | | Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| B.2 | Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days) | no. of trainings | Month 7 | 4 | | |
| B.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 200 | | |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |
| B.4 | Provide 63,400 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities: | | | | | |
| a | Musisi | No. | Month 9 | 15,850 | | |
| b | Bathdavia | No. | Month 9 | 15,850 | | |
| c | Muvule | No. | Month 9 | 15,850 | | |
| d | Mahogany | No. | Month 9 | 15,850 | | |
| B.5 | Demarcate off and re-vegetate 80km (40 km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | Km | Month 14 | 80 | | |
| B.6 | Procure 12,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 12,000 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|---|---|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| B.7 | Stabilize 40 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 40 | | |
| B.8 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| B.9 | Organise micro-catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |
| B.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | quarterly | 2 | | |
| Sub Total Schedule 2 | | | | | | |
| Schedule 3: Support communities to restore degraded stretches of riverbanks in Lower Mitano micro-catchment through use of catchment management measures | | | | | | |
| C | Restore 80km (40 km on each side) of the degraded stretches of the major rivers in Lower Mitano Micro-catchment through use of catchment management measures | | | | | |
| C.1 | Mobilise 200 community members, raise their awareness on the importance of river bank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 4 | | |
| C.2 | Conduct trainings for 200 community members to undertake and adopt the river bank protection and restoration measures including river bank stabilisation using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days) | no. of trainings | Month 7 | 4 | | |
| C.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 200 | | |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| C.4 | Provide 63,400 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities | | | | | |
| a | Musisi | No. | Month 7 | 15,850 | | |
| b | Bathdavia | No. | Month 7 | 15,850 | | |
| c | Muvule | No. | Month 7 | 15,850 | | |
| d | Mahogany | No. | Month 7 | 15,850 | | |
| C.5 | Demarcate off and re-vegetate 80km (40 km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | Km | Month 14 | 80 | | |
| C.6 | Procure 12,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 12,000 | | |
| C.7 | Stabilize 40 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 40 | | |
| C.8 | Allow provisional sum of shs. 5,00,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| C.9 | Organise micro-catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |
| C.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | Month 7 | 2 | | |
| Sub Total Schedule 3 | | | | | | |
| Schedule 4: Support communities to restore degraded stretches of riverbanks in Rushaya micro-catchment through use of catchment management measures | | | | | | |
| D | Restore 60km (30 km on each side) of the degraded stretches of the major rivers in Rushaya Micro catchment through use of catchment management measures | | | | | |
| D.1 | Mobilise 150 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 5 | 3 | | |
| D.2 | Conduct trainings for 150 community members to undertake and adopt the riverbank protection and restoration measures including riverbank | no. of trainings | Month 7 | 3 | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days) | | | | | |
| D.3 | Provide tools to communities for use in implementing the riverbank protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 7 | 150 | | |
| b | Spades | No. | Month 7 | 25 | | |
| c | Panga | No. | Month 7 | 25 | | |
| d | Pick axes | No. | Month 7 | 25 | | |
| e | Gum boots | No. | Month 7 | 150 | | |
| f | Sledge hammer (5kg) | No. | Month 7 | 25 | | |
| g | Wheel barrows | No. | Month 7 | 25 | | |
| D.4 | Provide 47,600 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities: | | | | | |
| a | Musisi | No. | Month 7 | 11,900 | | |
| b | Bathdavia | No. | Month 7 | 11,900 | | |
| c | Muvule | No. | Month 7 | 11,900 | | |
| d | Mahogany | No. | Month 7 | 11,900 | | |
| D.5 | Demarcate off and re-vegetate 60km (30km on each side) buffer zone/stretch on both sides of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting). | Km | Month 14 | 60 | | |
| D.6 | Procure 9,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil) | no. of sacks | Month 13 | 9,000 | | |
| D.7 | Stabilize 30 km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm. | Km | Month 16 | 30 | | |
| D.8 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| D.9 | Organise micro-catchment level meeting for 150 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining. | no. of meetings | Month 17 | 3 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| D.10 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. (8 Senior technical officials from MWE, DLGs). | No. of Quarters | quarterly | 2 | | |
| Sub Total Schedule 4 | | | | | | |
| Schedule 5: Support demarcation and restoration of degraded Wetlands to perform their ecological and socio-economic functions in Kazinga-Kiruruma micro-catchment | | | | | | |
| E | Restore 80ha of the degraded wetlands in Kazinga-Kiruruma micro-catchment through use of catchment management measures | | | | | |
| E.1 | Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 10 | 4 | | |
| E.2 | Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organise members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days) | no. of trainings | Month 12 | 4 | | |
| E.3 | Provide tools to communities to implement wetland protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 12 | 200 | | |
| b | Spades | No. | Month 12 | 25 | | |
| c | Panga | No. | Month 12 | 25 | | |
| d | Pick axes | No. | Month 12 | 25 | | |
| e | Gum boots | No. | Month 12 | 200 | | |
| f | Wheel barrows | No. | Month 12 | 25 | | |
| E.3 | Procure 6,400 Sisal stems as local planting materials to demarcate the 80ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m) | no. of Stems | Month 13 | 6,400 | | |
| E.4 | Demarcate off 80ha buffer zone of the wetland using sisal stems (80 stems per ha at a spacing of 5m by 5m) | Ha | Month 18 | 80 | | |
| E.5 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| E.6 | Engage (for 5 days) and strengthen 50 people of the sub catchment and micro-catchment structures to develop/enforce Wetlands management plans and enforce bye laws for the demarcated wetlands in the sub catchment | No. of people | Month 16 | 50 | | |
| E.7 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival (8 Senior technical officials from MWE, DLGs). | Quarters | Quarterly | 2 | | |
| Sub Total Schedule 5 | | | | | | |
| Schedule 6: Support demarcation and restoration of degraded Wetlands to perform their ecological and socio-economic functions in Lower Mitano micro-catchment | | | | | | |
| F | Restore 100ha of the degraded wetlands in Lower Mitano micro-catchment through use of catchment management measures | | | | | |
| F.1 | Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 10 | 4 | | |
| F.2 | Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organise members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days) | no. of trainings | Month 12 | 4 | | |
| F.3 | Provide tools to communities to implement wetland protection and restoration action plans: | | | | | |
| a | Hoes incl. handles | No. | Month 12 | 200 | | |
| b | Spades | No. | Month 12 | 25 | | |
| c | Panga | No. | Month 12 | 25 | | |
| d | Pick axes | No. | Month 12 | 25 | | |
| e | Gum boots | No. | Month 12 | 200 | | |
| f | Wheel barrows | No. | Month 12 | 25 | | |
| F.4 | Procure 8,000 Sisal stems as local planting materials to demarcate the 100ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m) | no. of Stems | Month 13 | 8000 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) | |
| F.5 | Demarcate off 100ha buffer zone of the wetland using sisal stems (80 stems per ha at a spacing of 5m by 5m) | Ha | Month 18 | 100 | | | |
| F.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | | |
| F.7 | Engage (for 5 days) and strengthen 50 people of the sub catchment and micro-catchment structures to develop/enforce Wetlands management plans and enforce bye laws for the demarcated wetlands in the sub catchment | No. of people | Month 16 | 50 | | | |
| F.8 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival (8 Senior technical officials from MWE, DLGs). | Quarters | Quarterly | 2 | | | |
| Sub Total Schedule 6 | | | | | | | |
| Schedule 7: Support demarcation and restoration of degraded Wetlands to perform their ecological and socio-economic functions in Rushaya micro-catchment | | | | | | | |
| G | Restore 100ha of the degraded wetlands in Rushaya micro-catchment through use of catchment management measures | | | | | | |
| G.1 | Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting) | No. of meetings | Month 10 | 4 | | | |
| G.2 | Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organise members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days) | no. of trainings | Month 12 | 4 | | | |
| G.3 | Provide tools to communities to implement wetland protection and restoration action plans: | | | | | | |
| a | Hoes incl. handles | No. | Month 12 | 200 | | | |
| b | Spades | No. | Month 12 | 25 | | | |
| c | Panga | No. | Month 12 | 25 | | | |
| d | Pick axes | No. | Month 12 | 25 | | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| e | Gum boots | No. | Month 12 | 200 | | |
| f | Wheel barrows | No. | Month 12 | 25 | | |
| G.4 | Procure 8,000 Sisal stems as local planting materials to demarcate the 100ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m) | no. of Stems | Month 13 | 8000 | | |
| G.5 | Demarcate off 100ha buffer zone of the wetland using sisal stems (80 stems per ha at a spacing of 5m by 5m) | Ha | Month 18 | 100 | | |
| G.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| G.7 | Engage (for 5 days) and strengthen 50 people of the sub catchment and micro-catchment structures to develop/enforce Wetlands management plans and enforce bye laws for the demarcated wetlands in the sub catchment | No. of people | Month 16 | 50 | | |
| G.8 | Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival (8 Senior technical officials from MWE, DLGs). | Quarters | Quarterly | 2 | | |
| Sub Total Schedule 7 | | | | | | |
| Schedule 8: Support communities to implement soil and water conservation measures on priority hotspots in Kazinga-Kiruruma Micro catchment. | | | | | | |
| H | Promote and support establishment of soil and water conservation measures on 50 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | |
| H.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | |
| H.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour- | no. of trainings | Month 5 | 4 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | | | | | |
| H.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 20 | | |
| d | Pick axes | No. | Month 5 | 20 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | |
| g | Wheel barrows | No. | Month 5 | 25 | | |
| H.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | |
| H.5 | Support individual farmers to establish 40 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 40 | | |
| H.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| H.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 8 | | | | | | |
| Schedule 9: Support communities to implement soil and water conservation measures on priority hotspots in Lower Mitano Micro catchment. | | | | | | |
| I | Promote and support establishment of soil and water conservation measures on 50 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | |
| I.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| I.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | no. of trainings | Month 5 | 4 | | |
| I.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 20 | | |
| d | Pick axes | No. | Month 5 | 20 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | |
| g | Wheel barrows | No. | Month 5 | 25 | | |
| I.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | |
| I.5 | Support individual farmers to establish 40 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 40 | | |
| I.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| I.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 9 | | | | | | |
| Schedule 10: Support communities to implement soil and water conservation measures on priority hotspots Rushaya Micro catchment. | | | | | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) | |
| J | Promote and support establishment of soil and water conservation measures on 50 ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation | | | | | | |
| J.1 | Mobilize 200 community members and raise their awareness on the advantages of controlling soil erosion / floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting) | no. of meetings | Month 3 | 4 | | | |
| J.2 | Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control, developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 2 days) | no. of trainings | Month 5 | 4 | | | |
| J.3 | Provide tools to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.): | | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | | |
| b | Spades | No. | Month 5 | 40 | | | |
| c | Panga | No. | Month 5 | 20 | | | |
| d | Pick axes | No. | Month 5 | 20 | | | |
| e | Gum boots | No. | Month 5 | 200 | | | |
| f | Sledge hammer (5kg) | No. | Month 5 | 20 | | | |
| g | Wheel barrows | No. | Month 5 | 25 | | | |
| J.4 | Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centers. | Ha | Month 5 | 10 | | | |
| J.5 | Support individual farmers to establish 40 Ha similar soil and water conservation structures on the hotspots identified on their individual land. | Ha | Month 7 | 40 | | | |
| J.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| J.7 | Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| Sub Total Schedule 10 | | | | | | |
| Schedule 11: Support communities to restore of deforested and degraded communal and individual land in Kazinga -Kiruruma Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| K | Restoration of 100 ha of degraded communal and individual land in Kazinga-Kiruruma Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | |
| K.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | |
| K.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | |
| K.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 40 | | |
| d | Pickaxes | No. | Month 5 | 35 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 35 | | |
| g | Wheelbarrows | No. | Month 5 | 40 | | |
| K.4 | Provide 40,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 3,500 | | |
| b | Teak | No. | Month 5 | 3,500 | | |
| c | Bathdavia | No. | Month 5 | 3,500 | | |
| d | Muvule | No. | Month 5 | 3,500 | | |
| e | Taminalia | No. | Month 5 | 3,500 | | |
| f | Pine | No. | Month 5 | 3,500 | | |
| g | Grevillea | No. | Month 5 | 3,500 | | |
| h | Mahogany | No. | Month 5 | 3,500 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) | |
| i | Jack fruit | No. | Month 5 | 4,000 | | | |
| j | Guavas | No. | Month 5 | 4,000 | | | |
| k | Avocado | No. | Month 5 | 4,000 | | | |
| K.5 | Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 100 | | | |
| K.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | | |
| K.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | quarterly | 2 | | | |
| K.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | | |
| Sub Total Schedule 11 | | | | | | | |
| Schedule 12: Support communities to restore of deforested and degraded communal and individual land in Lower Mitano Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | | |
| L | Restoration of 100 ha of degraded communal and individual land in Lower Mitano Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| L.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | | |
| L.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | | |
| L.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | | |
| b | Spades | No. | Month 5 | 40 | | | |
| c | Panga | No. | Month 5 | 40 | | | |
| d | Pickaxes | No. | Month 5 | 35 | | | |
| e | Gum boots | No. | Month 5 | 200 | | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 35 | | | |
| g | Wheelbarrows | No. | Month 5 | 40 | | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| L.4 | Provide 40,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 3,500 | | |
| b | Teak | No. | Month 5 | 3,500 | | |
| c | Bathdavia | No. | Month 5 | 3,500 | | |
| d | Muvule | No. | Month 5 | 3,500 | | |
| e | Taminalia | No. | Month 5 | 3,500 | | |
| f | Pine | No. | Month 5 | 3,500 | | |
| g | Grevillea | No. | Month 5 | 3,500 | | |
| h | Mahogany | No. | Month 5 | 3,500 | | |
| i | Jack fruit | No. | Month 5 | 4,000 | | |
| j | Guavas | No. | Month 5 | 4,000 | | |
| k | Avocado | No. | Month 5 | 4,000 | | |
| L.5 | Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 100 | | |
| L.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| L.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | quarterly | 2 | | |
| L.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | |
| Sub Total Schedule 12 | | | | | | |
| Schedule 13: Support communities to restore of deforested and degraded communal and individual land in Rushaya Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | | |
| M | Restoration of 100 ha of degraded communal and individual land in Rushaya Micro catchment through tree growing (afforestation, reforestation and agroforestry) | | | | | |
| M.1 | Mobilise and sensitize 200 households to engage in tree growing initiatives (50 members per meeting) | No. of meetings | Month 3 | 4 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| M.2 | Conduct trainings for 200 households in tree growing and forest management for restoration (50 members per training for 2 days) | No. of Trainings | Month 4 | 4 | | |
| M.3 | Provide tools and materials) to 200 households for use during tree growing: | | | | | |
| a | Hoes incl. handles | No. | Month 5 | 200 | | |
| b | Spades | No. | Month 5 | 40 | | |
| c | Panga | No. | Month 5 | 40 | | |
| d | Pickaxes | No. | Month 5 | 35 | | |
| e | Gum boots | No. | Month 5 | 200 | | |
| f | Sledgehammer (5kg) | No. | Month 5 | 35 | | |
| g | Wheelbarrows | No. | Month 5 | 40 | | |
| M.4 | Provide 40,000 tree seedlings of average height of 30cm to communities: | | | | | |
| a | Musisi | No. | Month 5 | 3,500 | | |
| b | Teak | No. | Month 5 | 3,500 | | |
| c | Bathdavia | No. | Month 5 | 3,500 | | |
| d | Muvule | No. | Month 5 | 3,500 | | |
| e | Taminalia | No. | Month 5 | 3,500 | | |
| f | Pine | No. | Month 5 | 3,500 | | |
| g | Grevillea | No. | Month 5 | 3,500 | | |
| h | Mahogany | No. | Month 5 | 3,500 | | |
| i | Jack fruit | No. | Month 5 | 4,000 | | |
| j | Guavas | No. | Month 5 | 4,000 | | |
| k | Avocado | No. | Month 5 | 4,000 | | |
| M.5 | Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision. | ha | Month 8 | 100 | | |
| M.6 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| M.7 | Carry out quarterly inspections and monitoring to provide extension services after establishment to ensure tree survival and growth. (8 Senior technical officials from MWE, DLGs). | Quarter | Quarterly | 2 | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| M.8 | Facilitate (for 5 days) 30 members of Micro-catchment structure to develop and enforce byelaws to manage the tree growing | no. of people | Month 7 | 30 | | |
| Sub Total Schedule 13 | | | | | | |
| Schedule 14: Support communities to establish and promote alternative income generating activities for improved livelihoods in Kazinga-Kiruruma Micro Catchment | | | | | | |
| N | Support Bee-keeping as alternative income generating activity | | | | | |
| N.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |
| N.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | No. of Trainings | Month 10 | 2 | | |
| N.3 | Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 60 | | |
| c) | 1 Smoker pump (metallic) for 3 groups | No. | Month 12 | 3 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups | No. | Month 12 | 6 | | |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups | No. | Month 12 | 3 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 3 groups) | No. | Month 12 | 3 | | |
| g) | 1 Kg of bee wax for each of 3 groups | No. | Month 12 | 3 | | |
| h) | 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups | No. | Month 12 | 3 | | |
| i) | 1 bee knife and 1 Bee brush for each of 3 groups | No. | Month 12 | 3 | | |
| j) | Provide 1No. Honey extractor to each of the 3 groups | No. | Month 12 | 3 | | |
| N.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of | No. of apiaries | Month 15 | 3 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ RFB No: _____ Alternative No: _____ Page N° _____ of _____ |
|--------------------------------------|---|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | | | | | |
| N.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| O | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |
| O.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| O.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| O.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| O.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| P | Support fruit growing as alternative income generating activity | | | | | |
| P.1 | Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| P.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, | No. of trainings | Month 14 | 4 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | fruit tree management, organic farming, post-harvest handling). (1 no. training per group for 2 days, 25members per group) | | | | | |
| P.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| P.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Q | Promote fish farming as alternative income generating activity | | | | | |
| Q.1 | Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting) | no. of Meetings | Month 14 | 3 | | |
| Q.2 | Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management). | No. of trainings | Month 16 | 2 | | |
| Q.3 | Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) to each of the farmer groups: | | | | | |
| a | Hoes incl. handles | No. | Month 16 | 80 | | |
| b | Spades | No. | Month 16 | 20 | | |
| c | Panga | No. | Month 16 | 20 | | |
| d | Pick axes | No. | Month 16 | 20 | | |
| e | Gum boots | No. | Month 16 | 80 | | |
| f | Wheel barrows | No. | Month 16 | 20 | | |
| Q.4 | Construct 2 (20m x 15m) dug out shallow pond, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m ²) of the pond base | No. of ponds | Month 20 | 2 | | |
| Q.5 | Prepare the 2 pond to receive fish: fill the pond with water; fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level); | No. of ponds | Month 20 | 2 | | |

| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | - if using compost, add about 10 kg per 100 m ² - if using animal manure, add per 100 m ² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure - if using plant wastes only, keep the fertilizing crib full and pack this material tightly in each crib | | | | | |
| Q.6 | Stock the 2 pond each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes | Fingerlings | Month 21 | 9000 | | |
| Q.7 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| Q.8 | Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fish ponds by the farmers) for 5 days per month for 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 14 | | | | | | |
| Schedule 15: Support communities to establish and promote alternative income generating activities for improved livelihoods in Lower Micro Catchment | | | | | | |
| R | Support Bee-keeping as alternative income generating activity | | | | | |
| R.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |
| R.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | No. of Trainings | Month 10 | 2 | | |
| R.3 | Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 60 | | |
| c) | 1 Smoker pump (metallic) for 3 groups | No. | Month 12 | 3 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups | No. | Month 12 | 6 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups | No. | Month 12 | 3 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 3 groups) | No. | Month 12 | 3 | | |
| g) | 1 Kg of bee wax for each of 3 groups | No. | Month 12 | 3 | | |
| h) | 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups | No. | Month 12 | 3 | | |
| i) | 1 bee knife and 1 Bee brush for each of 3 groups | No. | Month 12 | 3 | | |
| j) | Provide 1No. Honey extractor to each of the 3 groups | No. | Month 12 | 3 | | |
| R.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | No. of apiaries | Month 15 | 3 | | |
| R.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| S | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |
| S.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| S.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| S.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| S.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| T | Support fruit growing as alternative income generating activity | | | | | |
| T.1 | Identify and mobilise 100 fruit growing farmers, sensitize and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| T.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling). (1no. training per group for 2 days, 25members per group) | No. of trainings | Month 14 | 4 | | |
| T.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| T.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| U | Promote fish farming as alternative income generating activity | | | | | |
| U.1 | Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting) | no. of Meetings | Month 14 | 3 | | |
| U.2 | Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management). | No. of trainings | Month 16 | 2 | | |
| U.3 | Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) to each of the farmer groups: | | | | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| a | Hoes incl. handles | No. | Month 16 | 80 | | |
| b | Spades | No. | Month 16 | 20 | | |
| c | Panga | No. | Month 16 | 20 | | |
| d | Pick axes | No. | Month 16 | 20 | | |
| e | Gum boots | No. | Month 16 | 80 | | |
| f | Wheel barrows | No. | Month 16 | 20 | | |
| U.4 | Construct 2 (20m x 15m) dug out shallow pond, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m ²) of the pond base | No. of ponds | Month 20 | 2 | | |
| U.5 | Prepare the 2 pond to receive fish: fill the pond with water; fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level); - if using compost, add about 10 kg per 100 m ² - if using animal manure, add per 100 m ² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure - if using plant wastes only, keep the fertilizing crib full and pack this material tightly in each crib | No. of ponds | Month 20 | 2 | | |
| U.6 | Stock the 2 pond each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes | Fingerlings | Month 21 | 9000 | | |
| U.7 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| U.8 | Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fish ponds by the farmers) for 5 days per month for 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 15 | | | | | | |
| | | | | | | |

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| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| Schedule 16: Support communities to establish and promote alternative income generating activities for improved livelihoods in Rushaya Micro Catchment | | | | | | |
| V | Support Bee-keeping as alternative income generating activity | | | | | |
| V.1 | Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment. (50 members per meeting) | No. of meetings | Month 8 | 2 | | |
| V.2 | Conduct trainings for 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition. (50 members per training for 2 days) | No. of Trainings | Month 10 | 2 | | |
| V.3 | Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:- | | | | | |
| a) | 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm) | No. | Month 12 | 60 | | |
| c) | 1 Smoker pump (metallic) for 3 groups | No. | Month 12 | 3 | | |
| d) | 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups | No. | Month 12 | 6 | | |
| e) | 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups | No. | Month 12 | 3 | | |
| f) | 1 Air tight Bucket (20ltrs for each of 3 groups) | No. | Month 12 | 3 | | |
| g) | 1 Kg of bee wax for each of 3 groups | No. | Month 12 | 3 | | |
| h) | 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups | No. | Month 12 | 3 | | |
| i) | 1 bee knife and 1 Bee brush for each of 3 groups | No. | Month 12 | 3 | | |
| j) | Provide 1No. Honey extractor to each of the 3 groups | No. | Month 12 | 3 | | |
| V.4 | Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives and facilitate them (labour) to install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis - mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.). | No. of apiaries | Month 15 | 3 | | |

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|--------------------------------------|---|------------------|---------------|----------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| V.5 | Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores). (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| W | Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity | | | | | |
| W.1 | Identify, mobilize and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting) | no. of meetings | Month 7 | 3 | | |
| W.2 | Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1 day training per group) | no. of trainings | Month 9 | 3 | | |
| W.3 | Provide materials and equipment to women groups and facilitate them (labour) to construct 2000 cookstoves for households: | | | | | |
| a | Hoes incl. handles | No. | Month 13 | 20 | | |
| b | Spades | No. | Month 13 | 20 | | |
| c | Panga | No. | Month 13 | 20 | | |
| d | Moulds | No. | Month 13 | 20 | | |
| e | Wheel barrows | No. | Month 13 | 20 | | |
| f) | Jerrycans | No. | Month 13 | 20 | | |
| g | String | No. | Month 13 | 20 | | |
| h) | Measuring Tape | No. | Month 13 | 20 | | |
| W.4 | Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. (8 Senior technical officials from MWE, DLGs). | Quarters | quarterly | 2 | | |
| X | Support fruit growing as alternative income generating activity | | | | | |
| X.1 | Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups. (50 members per meeting) | no. of meetings | Month 13 | 2 | | |
| X.2 | Conduct 1 training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling). (1no. training per group for 2 days, 25members per group) | No. of trainings | Month 14 | 4 | | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| X.3 | Provide 3,500 orange seedlings of average height of 30cm per group and plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision. | Seedlings | Month 16 | 14000 | | |
| X.4 | Provide technical support to fruit farmers and conduct on farm monitoring per farmer per month for the first 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Y | Promote fish farming as alternative income generating activity | | | | | |
| Y.1 | Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting) | no. of Meetings | Month 14 | 3 | | |
| Y.2 | Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management). | No. of trainings | Month 16 | 2 | | |
| Y.3 | Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) to each of the farmer groups: | | | | | |
| a | Hoes incl. handles | No. | Month 16 | 80 | | |
| b | Spades | No. | Month 16 | 20 | | |
| c | Panga | No. | Month 16 | 20 | | |
| d | Pick axes | No. | Month 16 | 20 | | |
| e | Gum boots | No. | Month 16 | 80 | | |
| f | Wheel barrows | No. | Month 16 | 20 | | |
| Y.4 | Construct 2 (20m x 15m) dug out shallow pond, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m ²) of the pond base | No. of ponds | Month 20 | 2 | | |
| Y.5 | Prepare the 2 pond to receive fish: fill the pond with water; fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level); - if using compost, add about 10 kg per 100 m ² - if using animal manure, add per 100 m ² one of the following: 2-3 kg of | No. of ponds | Month 20 | 2 | | |

| | | | | | | |
|--------------------------------------|--|-------------|---------------|----------------------------|------------|------------------------------------|
| Currencies in accordance with ITB 16 | | | | | | Date: _____ |
| | | | | | | RFB No: _____ |
| | | | | | | Alternative No: _____ |
| | | | | | | Page N° _____ of _____ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Service No | Description of Services | Unit | Delivery Date | Quantity and physical unit | Unit price | Total Price per Service (Col. 5*6) |
| | chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure - if using plant wastes only, keep the fertilizing crib full and pack this material tightly in each crib | | | | | |
| Y.6 | Stock the 2 pond each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes | Fingerlings | Month 21 | 9000 | | |
| Y.7 | Allow provisional sum of shs. 5,000,000 for monthly client's participation in the project activities (2 staff) | Months | Monthly | 6 | | |
| Y.8 | Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fish ponds by the farmers) for 5 days per month for 6 Months. (8 Senior technical officials from MWE, DLGs). | Months | Monthly | 6 | | |
| Sub Total Schedule 16 | | | | | | |

COST SUMMARY

| Cost Category | Amount (UGX) |
|-----------------------|--------------|
| Sub Total Schedule 1 | |
| Sub Total Schedule 2 | |
| Sub Total Schedule 3 | |
| Sub Total Schedule 4 | |
| Sub Total Schedule 5 | |
| Sub Total Schedule 6 | |
| Sub Total Schedule 7 | |
| Sub Total Schedule 8 | |
| Sub Total Schedule 9 | |
| Sub Total Schedule 10 | |
| Sub Total Schedule 11 | |
| Sub Total Schedule 12 | |
| Sub Total Schedule 13 | |

| | |
|-----------------------|--|
| Sub Total Schedule 14 | |
| Sub Total Schedule 15 | |
| Sub Total Schedule 16 | |
| GRAND TOTAL | |

Part III – Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract

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Section VIII - General Conditions of Contract

A. General Provisions

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) The Adjudicator is the person appointed jointly by the Employer and the Service Provider to resolve disputes in the first instance, as provided for in Sub-Clause 8.2 hereunder;
- (b) “Activity Schedule” is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Bid;
- (c) “Bank” means the International Bank for Reconstruction and Development, Washington, D.C., U.S.A.;
- (c) “Association” means the International Development Association, Washington, D.C., U.S.A.;
- (d) “Completion Date” means the date of completion of the Services by the Service Provider as certified by the Employer;
- (e) “Contract” means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of the Contract Agreement;
- (f) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (g) “Dayworks” means varied work inputs subject to payment on a time basis for the Service Provider’s employees and equipment, in addition to payments for associated materials and administration;
- (h) “Employer” means the party who employs the Service Provider;
- (i) “Employer’s Personnel” means all staff, labor and other employees of the Employer engaged in fulfilling the Employer’s obligations under the Contract; and any other personnel identified as Employer’s Personnel, by a notice from the Employer to the Service provider;
- (j) “ES” means Environmental and Social, as applicable, (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));

- (k) “Foreign Currency” means any currency other than the currency of the country of the Employer;
- (l) “GCC” means these General Conditions of Contract;
- (m) “Government” means the Government of the Employer’s Country;
- (n) “Local Currency” means the currency of the country of the Employer;
- (o) “Member,” in case the Service Provider consist of a joint venture of more than one entity, means any of these entities; “Members” means all these entities, and “Member in Charge” means the entity specified in the SC to act on their behalf in exercising all the Service Provider’ rights and obligations towards the Employer under this Contract;
- (p) “Party” means the Employer or the Service Provider, as the case may be, and “Parties” means both of them;
- (q) “Service Provider” is a person or corporate body whose Bid to provide the Services has been accepted by the Employer;
- (r) “Service Provider’s Personnel” means all personnel whom the Service Provider utilizes in the execution of the Services, including the staff, labor and other employees of the Service Provider and each Subcontractor; and any other personnel assisting the Service Provider in the execution of the Services;
- (s) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;
- (t) “Specifications” means the specifications of the Services included in the Contract, and any additions and modifications to the specifications in accordance with the Contract;
- (u) “Services” means the work to be performed by the Service Provider pursuant to the Contract;
- (v) “Sexual Exploitation and Abuse” “(SEA)” means the following:
Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;

Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;

- (w) “Sexual Harassment” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Service Provider’s Personnel with other Service Provider’s Personnel or Employer’s Personnel;
- (x) “Subcontractor” means any entity to which the Service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4.

1.2 Applicable Law The Contract shall be interpreted in accordance with the laws of the Employer’s Country, unless otherwise **specified in the Special Conditions of Contract (SCC)**.

1.3 Language This Contract has been executed in the language **specified in the SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.4 Notices Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address **specified in the SCC**.

1.5 Location The Services shall be performed at such locations as are specified in Appendix A, in the Specifications and, where the location of a particular task is not so specified, at such locations, whether in the Government’s country or elsewhere, as the Employer may approve.

1.6 Authorized Representatives Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Service Provider may be taken or executed by the officials **specified in the SCC**.

1.7 Inspection and Audit by the Bank Pursuant to paragraph 2.2 e. of Attachment 1 to the General Conditions, the Service Provider shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Service Provider's and its Subcontractors' and subconsultants' attention is drawn to Sub-Clause 3.10 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

1.8 Taxes and Duties The Service Provider, Subcontractors, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

2. Commencement, Completion, Modification, and Termination of Contract

2.1 Effectiveness of Contract This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be **stated in the SCC**.

2.2 Commencement of Services

2.2.1 Program Before commencement of the Services, the Service Provider shall submit to the Employer for approval a Program showing the general methods, arrangements, order and timing for all activities. Such submission to the Employer shall include any applicable environmental and social management plan to manage environmental and social risks and impacts.

The Services shall be carried out in accordance with the approved Program as updated.

2.2.2 Starting Date The Service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC**.

2.3 Intended Completion Date Unless terminated earlier pursuant to Sub-Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is **specified in the SCC**. If the Service Provider does not complete the activities by the Intended Completion Date, it shall be

liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the Completion Date will be the date of completion of all activities.

2.4 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.

2.4.1 Value Engineering

The Service Provider may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- (a) the proposed change(s), and a description of the difference to the existing contract requirements;
- (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs, if applicable) the Employer may incur in implementing the value engineering proposal; and
- (c) a description of any effect(s) of the change on performance/functionality.

The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:

- (a) accelerates the delivery period; or
- (b) reduces the Contract Price or the life cycle costs to the Employer; or
- (c) improves the quality, efficiency, safety or sustainability of the services; or
- (d) yields any other benefits to the Employer,

without compromising the necessary functions of the Services.

If the value engineering proposal is approved by the Employer and results in:

- (a) a reduction of the Contract Price; the amount to be paid to the Service Provider shall be the percentage specified in the SCC of the reduction in the Contract Price; or

- (b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Service Provider shall be the full increase in the Contract Price.

2.5 Force Majeure

2.5.1 Definition

For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a Party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6 Termination

2.6.1 By the Employer

The Employer may terminate this Contract, by not less than thirty (30) days' written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.6.1:

- (a) if the Service Provider does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as the Employer may have subsequently approved in writing;
- (b) if the Service Provider become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) if the Service Provider, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a. of Attachment 1 to the GCC, in competing for or in executing the Contract

2.6.2 By the Service Provider

The Service Provider may terminate this Contract, by not less than thirty (30) days' written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Sub-Clause 2.6.2:

- (a) if the Employer fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days.

2.6.3 Suspension of Loan or Credit

In the event that the World Bank suspends the loan or Credit to the Employer, from which part of the payments to the Service Provider are being made:

- (a) The Employer is obligated to notify the Service Provider of such suspension within 7 days of having received the World Bank's suspension notice.
- (b) If the Service Provider has not received sums due to by the due date stated in the SCC in accordance with Sub-Clause 6.5 the Service Provider may immediately issue a 14 day termination notice.

2.6.4 Payment upon Termination Upon termination of this Contract pursuant to Sub-Clauses 2.6.1 or 2.6.2, the Employer shall make the following payments to the Service Provider:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a), (b), (d) of Sub-Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Service Provider's Personnel.

3. Obligations of the Service Provider

3.1 General

The Service Provider shall perform the Services in accordance with the Specifications and the Activity Schedule, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods.

The Service Provider shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Subcontractors or third parties.

The Service Provider shall require that its Subcontractors execute the Services in accordance with the Contract, including complying with any applicable ES requirements and the obligations set out in GCC Sub-Clause 3.12.

3.2 Conflict of Interests

3.2.1 Service Provider Not to Benefit from Commissions and Discounts.

The remuneration of the Service Provider pursuant to Clause 6 shall constitute the Service Provider's sole remuneration in connection with this Contract or the Services, and the Service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Service Provider shall use their best efforts to ensure that the Service Provider's Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

- 3.2.2 Service Provider and Affiliates Not to be Otherwise Interested in Project** The Service Provider agree that, during the term of this Contract and after its termination, the Service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.
- 3.2.3 Prohibition of Conflicting Activities** Neither the Service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any business or professional activity that would conflict with the activities assigned to them under this Contract. The Service provider has an obligation and shall ensure that its Service Provider’s Personnel and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of the Employer, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.
- 3.3 Confidentiality** The Service Provider, its Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Employer’s business or operations without the prior written consent of the Employer.
- 3.4 Insurance to be Taken Out by the Service Provider** The Service Provider (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors’, as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Employer’s request, shall provide evidence to the Employer showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 3.5 Service Provider’s Actions Requiring Employer’s Prior Approval** The Service Provider shall obtain the Employer’s prior approval in writing before taking any of the following actions:
- (a) entering into a subcontract for the performance of any part of the Services,
 - (b) appointing such members of the Personnel not listed by name in Appendix C (“Key Personnel and Subcontractors”),

- (c) changing the Program of activities; and
- (d) any other action that may be **specified in the SCC**.

Submission by the Contractor for the Employer's approval, for addition of any Subcontractor not named in the Contract, shall also include the Subcontractor's declaration in accordance with Appendix I- Sexual exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration.

3.6 Reporting Obligations

The Service Provider shall submit to the Employer the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

If specified in Appendix B, the reporting requirements shall include applicable environmental and social aspects.

The Service Provider shall inform the Employer immediately of any allegation, incident or accident in the locations in the Employer's country where the Services are executed, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel or Service Provider's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.

The Service Provider, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Employer of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Services which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel or Service Provider's, its Subcontractors' and suppliers' Personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Service provider shall provide full details of such incidents or accidents to the Employer within the timeframe agreed with the Employer.

The Service Provider shall require its Subcontractors and suppliers to immediately notify the Service Provider of any incidents or accidents referred to in this Sub- Clause.

3.7 Documents Prepared by the Service Provider to

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Service Provider in accordance with Sub-Clause 3.6 shall become and remain the

Be the Property of the Employer

property of the Employer, and the Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a detailed inventory thereof. The Service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**.

3.8 Liquidated Damages**3.8.1 Payments of Liquidated Damages**

The Service Provider shall pay liquidated damages to the Employer at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.

3.8.2 Correction for Over-payment

If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 6.5.

3.8.3 Lack of performance penalty

If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, a penalty for Lack of performance will be paid by the Service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as described in Sub-Clause 7.2 and **specified in the SCC**.

3.9 Performance Security

If required as **specified in the SCC**, the Service Provider shall provide to the Employer a Performance Security for the performance of the Contract, in the amount **specified in the SCC** and no later than the date specified in the Letter of acceptance.

As **specified in the SCC**, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Employer; and shall be in one of the format stipulated by the Employer in the **SCC**, or in another format acceptable to the Employer.

The performance Security shall be valid until a date 28 days from the Completion Date of the Contract in case of a bank guarantee,

and until one year from the Completion Date of the Contract in the case of a Performance Bond.

3.10 Fraud and Corruption

The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in the Attachment 1 to the GCC.

The Employer requires the Service Provider to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

3.11 Sustainable Procurement

The Service Provider shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.

3.12 Code of Conduct

The Service Provider shall have a Code of Conduct for the Service Provider's Personnel employed for the execution of the Services at the locations in the Employer's country where the Services are provided.

The Service Provider shall take all necessary measures to ensure that each Service Provider's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.

These measures include providing instructions and documentation that can be understood by the Service Provider's Personnel and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.

The Service Provider shall also ensure, as applicable, that the Code of Conduct is visibly displayed in locations in the Employer's country where the Services are executed as well as in areas outside the locations accessible to the local community and any project affected people. The posted Code of Conduct shall be provided in languages comprehensible to Service Provider's Personnel, Employer's Personnel and the local community.

The Service Provider's Management Strategy and Implementation Plans, as applicable, shall include appropriate

processes for the Service Provider to verify compliance with these obligations.

4. Service Provider's Personnel

4.1 Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as by name in Appendix C are hereby approved by the Employer.

4.2 Removal and/or Replacement of Personnel

- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Service Provider, it becomes necessary to replace any of the Key Personnel, the Service Provider shall provide as a replacement a person of equivalent or better qualifications.
- (b) The Employer may require the Service Provider to remove (or cause to be removed) a Service Provider's Personnel, who:
- (i) persists in any misconduct or lack of care;
 - (ii) carries out duties incompetently or negligently;
 - (iii) fails to comply with any provision of the Contract;
 - (iv) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;
 - (v) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Contract;
 - (vi) has been recruited from the Employer's Personnel;
 - (vii) undertakes behavior which breaches the Code of Conduct (ES), as applicable.

As appropriate, the Service provider shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience.

Notwithstanding any requirement from the Employer to remove or cause to remove any person, the Service provider shall take immediate action as appropriate in response to any violation of (i) through (vii) above. Such immediate action shall include removing (or causing to be removed) from the locations where the Services are carried out , any Service

Provider's Personnel who engages in (i), (ii), (iii), (iv), (v) or (vii) above or has been recruited as stated in (vi) above.

- (c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. Obligations of the Employer

- 5.1 Assistance and Exemptions** The Employer shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as **specified in the SCC.**
- 5.2 Change in the Applicable Law** If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clauses 6.2 (a) or (b), as the case may be.
- 5.3 Services and Facilities** The Employer shall make available to the Service Provider the Services and Facilities listed under Appendix F.

6. Payments to the Service Provider

- 6.1 Lump-Sum Remuneration** The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Provider in carrying out the Services described in Appendix A. Except as provided in Sub-Clause 5.2, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.4 and 6.3.
- 6.2 Contract Price**
- (a) The price payable in local currency is **set forth in the SCC.**
- (b) The price payable in foreign currency is **set forth in the SCC.**
- 6.3 Payment for Additional Services, and Performance Incentive Compensation**
- 6.3.1 For the purpose of determining the remuneration due for additional Services as may be agreed under Sub-Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.
- 6.3.2 **If the SCC so specify**, the service provider shall be paid performance incentive compensation as set out in the Performance Incentive Compensation appendix.

6.4 Terms and Conditions of Payment

Payments will be made to the Service Provider according to the payment schedule **stated in the SCC**. **Unless otherwise stated in the SCC**, the advance payment (Advance for Mobilization, Materials and Supplies) shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period **stated in the SCC**. Any other payment shall be made after the conditions **listed in the SCC** for such payment have been met, and the Service Provider have submitted an invoice to the Employer specifying the amount due.

6.5 Interest on Delayed Payments

If the Employer has delayed payments beyond fifteen (15) days after the due date stated in the SCC, interest shall be paid to the Service Provider for each day of delay at the rate stated in the SCC.

6.6 Price Adjustment

6.6.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c \frac{L_{mc}}{L_{oc}} + C_c \frac{I_{mc}}{I_{oc}}$$

Where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency “c”.

A_c , B_c and C_c are coefficients specified in the SCC, representing: A_c the nonadjustable portion; B_c the adjustable portion relative to labor costs and C_c the adjustable portion for other inputs, of the Contract Price payable in that specific currency “c”; and

L_{mc} is the index prevailing at the first day of the month of the corresponding invoice date and L_{oc} is the index prevailing 28 days before Bid opening for labor; both in the specific currency “c”.

I_{mc} is the index prevailing at the first day of the month of the corresponding invoice date and I_{oc} is the index prevailing 28 days before Bid opening for other inputs payable; both in the specific currency “c”.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor Z_o/Z_n will be applied to the respective component factor of p_n for the formula of the relevant currency. Z_o is the number of units of currency of the

country of the index, equivalent to one unit of the currency payment on the date of the base index, and Z_n is the corresponding number of such currency units on the date of the current index.

6.6.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

6.7 Dayworks

6.7.1 If applicable, the Daywork rates in the Service Provider's Bid shall be used for small additional amounts of Services only when the Employer has given written instructions in advance for additional services to be paid in that way.

6.7.2 All work to be paid for as Dayworks shall be recorded by the Service Provider on forms approved by the Employer. Each completed form shall be verified and signed by the Employer representative as indicated in Sub-Clause 1.6 within two days of the Services being performed.

6.7.3 The Service Provider shall be paid for Dayworks subject to obtaining signed Dayworks forms as indicated in Sub-Clause 6.7.2

7. Quality Control

7.1 Identifying Defects

The principle and modalities of Inspection of the Services by the Employer shall be as **indicated in the SCC**. The Employer shall check the Service Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Service Provider's responsibilities. The Employer may instruct the Service Provider to search for a Defect and to uncover and test any service that the Employer considers may have a Defect. Defect Liability Period is as **defined in the SCC**.

7.2 Correction of Defects, and Lack of Performance Penalty

- (a) The Employer shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
- (b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Employer's notice.

- (c) If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, the Service Provider will pay this amount, and a Penalty for Lack of Performance calculated as described in Sub-Clause 3.8.

8. Settlement of Disputes

8.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

8.2 Dispute Settlement

8.2.1 If any dispute arises between the Employer and the Service Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, the matter shall be referred to the Adjudicator within 14 days of the notification of disagreement of one party to the other.

8.2.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

8.2.3 The Adjudicator shall be paid by the hour at the rate **specified in the BDS and SCC**, together with reimbursable expenses of the types **specified in the SCC**, and the cost shall be divided equally between the Employer and the Service Provider, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

8.2.4 Unless otherwise agreed by both the Employer and the Service Provider, arbitration shall be conducted as follows:

- (a) For contracts with foreign Service Providers:

unless otherwise specified in the SCC; the dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce; by one or three arbitrators appointed in accordance with these Rules. The place of arbitration shall be the neutral location **stated in the SCC**; and the arbitration shall be conducted in the ruling language **stated in the SCC**;

and

(b) For contracts with national Service Providers, arbitration with proceedings conducted in accordance with the laws of the Employer's country.

8.2.5 Should the Adjudicator resign or die, or should the Employer and the Service Provider agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Employer and the Service Provider. In case of disagreement between the Employer and the Service Provider, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the SCC** at the request of either party, within 14 days of receipt of such request.

ATTACHMENT 1

Fraud and Corruption

(Text in this Attachment shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

Section IX - Special Conditions of Contract

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|---------------------|--|
| 1.1 | The words “in the Government’s country” are amended to read “ <i>in the Republic of Uganda.</i> ” |
| 1.1(a) | The Adjudicator is <i>Prof. Jackson Mwakali</i> |
| 1.1(e) | The contract name is _____. |
| 1.1(h) | The Employer is <i>Ministry of Water and Environment</i> |
| 1.1(o) | The Member in Charge is _____ |
| 1.1(q) | The Service Provider is _____ |
| 1.2 | The Applicable Law is: <i>Laws of Uganda</i> |
| 1.3 | The language is <i>English</i> |
| 1.4 | <p>The addresses are:</p> <p><i>Employer: Permanent Secretary, Ministry of Water & Environment Attention: Commissioner, Water Resources Planning and Regulation Department Plot 3-7, Kabalega Crescent, Luzira, P.O. BOX 20026, Kampala, Uganda</i></p> <p>Service Provider: _____</p> <p>Attention: _____</p> <p>Telex: _____</p> <p>Facsimile: _____</p> |
| 1.6 | <p>The Authorized Representatives are:</p> <p>For the Employer: <i>Permanent Secretary, Ministry of Water & Environment</i></p> <p>For the Service Provider: _____</p> |
| 2.1 | The date on which this Contract shall come into effect is <i>date the Contract is signed by both parties</i> |
| 2.2.2 | The Starting Date for the commencement of Services is <i>14 calendar days after the date the Contract becomes effective.</i> |

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|---------------------|---|
| 2.3 | The Intended Completion Date is 24 calendar months after the Starting Date for the commencement of Services. |
| 2.4.1 | Not applicable |
| 3.2.3 | Activities prohibited after termination of this Contract are: None |
| 3.4 | <p>The risks and coverage by insurance shall be:</p> <ul style="list-style-type: none"> i. Third Party motor vehicle: <i>a minimum coverage of at least the minimum required by the laws of Uganda;</i> ii. Third Party liability: <i>a minimum coverage of at least the minimum required by the laws of Uganda</i> iii. Employer’s liability and workers’ compensation: <i>a minimum coverage of at least the minimum required by the laws of Uganda</i> iv. Professional liability: <i>a minimum coverage of <u>110% Contract Value</u></i> v. Loss or damage to equipment and property: <i>a minimum coverage of at least the minimum required by the laws of Uganda.</i> |
| 3.5(d) | The other actions are None |
| 3.7 | <p>Restrictions on the use of documents prepared by the Service Provider are:</p> <p><i>Use of these documents, maps, diagrams, plans, databases, software, other documents, reports, supporting records or material for purposes unrelated to this Contract without the prior written approval of the Client.</i></p> |
| 3.8.1 | <p>The liquidated damages rate is 0.1 % of the final Contract Price per day</p> <p>The maximum amount of liquidated damages for the whole contract is 10% percent of the final Contract Price.</p> |
| 3.8.3 | The percentage to be used for the calculation of Lack of performance Penalty(ies) is 50% . |
| 3.9 | <p>A Performance Security shall be required</p> <p>The Performance Security shall be in the form of a Bank Guarantee.</p> <p>The amount of the Performance Security shall be: 10% of the Contract Price.</p> <p>The Performance security shall be denominated in the currencies of payment of the Contract, in accordance with their portions of the Contract Price</p> <p>If the unconditional guarantee is issued by a financial institution located outside the Employer’s Country, the issuing financial institution shall have a</p> |

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|---------------------|---|
| | correspondent financial institution located in the Employer’s Country to make it enforceable |
| 5.1 | The assistance and exemptions provided to the Service Provider are: <i>None</i> |
| 6.2(a) | The amount in local currency is <i>the local currency portion</i> |
| 6.2(b) | The amount in foreign currency or currencies is <i>the foreign currency portion</i> |
| 6.3.2 | The performance incentive paid to the Service Provider shall be: <i>None</i> |
| 6.4 | <p>Payments shall be made according to the following schedule:</p> <p>A. <u>LOT 1: Kyabaganda, Kyezo, Mishumba micro catchments</u></p> <p>Advance for Mobilization, Materials and Supplies: 10% of the Contract Price shall be paid on the commencement date against the submission of an unconditional bank guarantee for the same.</p> <p>Progress payments in accordance with the milestones established as follows, subject to certification by the Employer, that the Services have been rendered satisfactorily, pursuant to the performance indicators:</p> <ol style="list-style-type: none"> 1. 1st payment: 10% of the total contract sum shall be made on submission of an acceptable Inception Report against an invoice. 2. 2nd payment: 25% of the Lump Sum Contract value after completion of the following: <ol style="list-style-type: none"> a. 100Ha of degraded land restored through soil and water conservation measures. b. 210Ha of deforested and degraded communal and individual land restored through tree growing c. 40Km of degraded riverbanks restored 3. 3rd Payment: 20 % of the Lump Sum Contract value after completion of the following: <ol style="list-style-type: none"> a. 120Km of degraded riverbanks restored b. 65Ha of degraded land restored through soil and water conservation measures. c. 210Ha of deforested and degraded communal and individual land restored through tree growing 4. 4th payment: 20 % of the Lump Sum Contract value after completion of the following: <ol style="list-style-type: none"> a. 64.22Km of degraded riverbanks restored b. 80Ha of degraded wetlands restored c. 400 households trained and supported in establishing alternative income generating (livelihood) activities |

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|---------------------|--|
| | <p>5. 5th payment: 20 % of the Lump Sum Contract value after completion of the following:</p> <ol style="list-style-type: none"> a. 107.49Ha of degraded wetlands restored b. 360 households trained and supported in establishing alternative income generating (livelihood) activities <p>6. 6th payment: 5 % of the Lump Sum Contract value after completion of the following:</p> <ol style="list-style-type: none"> a. 160 households trained and supported in establishing alternative income generating (livelihood) activities <p>The amortization of the Advance payment mentioned above shall commence from 2nd payment and be completed on 4th Payment.</p> <p>The bank guarantee for the advance payment shall be released when the advance payment has been fully amortized.</p> <p>If the advance payment guarantee is issued by a financial institution located outside the Employer’s Country, the issuing financial institution shall have a correspondent financial institution located in the Employer’s Country to make it enforceable.</p> <p><u>B. LOT 2: Kazinga-Kiruruma, Lower Mitano and Rushaya micro-catchments</u></p> <p>Advance for Mobilization, Materials and Supplies: 10% of the Contract Price shall be paid on the commencement date against the submission of an unconditional bank guarantee for the same.</p> <p>Progress payments in accordance with the milestones established as follows, subject to certification by the Employer, that the Services have been rendered satisfactorily, pursuant to the performance indicators:</p> <ol style="list-style-type: none"> 1. 1st payment: 10% of the total contract sum shall be made on submission of an acceptable Inception Report against an invoice. 2. 2nd payment: 25% of the Lump Sum Contract value after completion of the following: <ol style="list-style-type: none"> a. 100Ha of degraded land restored through soil and water conservation measures. b. 200Ha of deforested and degraded communal and individual land restored through tree growing c. 40Km of degraded riverbanks restored 3. 3rd Payment: 20 % of the Lump Sum Contract value after completion of the following: <ol style="list-style-type: none"> a. 50Ha of degraded land restored through soil and water conservation measures. b. 100Ha of deforested and degraded communal and individual land restored through tree growing c. 120Km of degraded riverbanks restored |

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|---------------------|--|
| | <p>4. 4th payment: 30 % of the Lump Sum Contract value after completion of the following:</p> <ol style="list-style-type: none"> a. 100Ha of degraded wetlands restored b. 60Km of degraded riverbanks restored c. 400 households trained and supported in establishing alternative income generating (livelihood) activities <p>5. 5th payment: 15 % of the Lump Sum Contract value after completion of the following:</p> <ol style="list-style-type: none"> a. 180Ha of degraded wetlands restored b. 360 households trained and supported in establishing alternative income generating (livelihood) activities <p>6. 6th payment: 15 % of the Lump Sum Contract value after completion of the following:</p> <ol style="list-style-type: none"> a. 260 households trained and supported in establishing alternative income generating (livelihood) activities <p>The amortization of the Advance payment mentioned above shall commence from 2nd payment and be completed on 4th Payment.</p> <p>The bank guarantee for the advance payment shall be released when the advance payment has been fully amortized.</p> <p>If the advance payment guarantee is issued by a financial institution located outside the Employer’s Country, the issuing financial institution <i>shall have a correspondent financial institution located in the Employer’s Country to make it enforceable</i></p> <p>Should the certification not be provided or refused in writing by the employer within one month of the date of the milestone, or of the date of receipt of the corresponding invoice, the certification will be deemed to have been provided, and the progress payment will be released at such date.</p> |
| 6.5 | Payment shall be made within 60 days of receipt of the invoice and the relevant documents specified in Sub-Clause 6.4, and within 60 days in the case of the final payment. |
| 6.6.1 | The Contract is subject to price adjustment |
| 7.1 | <p>The principle and modalities of inspection of the Services by the Employer are as follows: The employer and the supervising service provider shall inspect and test the completed services to assure quality of the services and to identify any defects that require correction by the service provider</p> <p>The Defects Liability Period is <i>6 months</i>.</p> |
| 8.2.3 | The Adjudicator is Prof. Jackson Mwakali . who will be paid a rate of US\$50 per hour of work. |

| Number of GC Clause | Amendments of, and Supplements to, Clauses in the General Conditions of Contract |
|----------------------------|--|
| 8.2.4 | Rules of arbitration GCC 8.2.4 (a) shall apply . Place of arbitration: GCC Sub-Clause 8.2.4 (b): shall apply . Arbitration shall be conducted in accordance with the Arbitration and Conciliation Act Cap 4. Laws of Uganda |
| 8.2.5 | The designated Appointing Authority for a new Adjudicator is <i>The President, Uganda Institution of Professional Engineers.</i> |

Appendices

Appendix A - Description of the Services

Give detailed descriptions of the Services to be provided, dates for completion of various tasks, place of performance for different tasks, specific tasks to be approved by Employer, etc.

Appendix B - Schedule of Payments and Reporting Requirements

List all milestones for payments and list the format, frequency, and contents of reports or products to be delivered; persons to receive them; dates of submission; etc. If no reports are to be submitted, state here “Not applicable.”

Appendix C - Key Personnel and Subcontractors

- List under:*
- C-1 Titles [and names, if already available], detailed job descriptions and minimum qualifications of foreign Personnel to be assigned to work in the Government’s country, and staff-months for each.*
 - C-2 Same as C-1 for Key foreign Personnel to be assigned to work outside the Government’s country.*
 - C-3 List of approved Subcontractors (if already available); same information with respect to their Personnel as in C-1 or C-2.*
 - C-4 Same information as C-1 for Key local Personnel.*

Appendix D—Breakdown of Contract Price in Foreign Currency(ies)

List here the elements of cost used to arrive at the breakdown of the lump-sum price—foreign currency portion:

- 1. Rates for Equipment Usage or Rental or for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenditures.*

This appendix will exclusively be used for determining remuneration for additional Services.

Appendix E - Breakdown of Contract Price in Local Currency

List here the elements of cost used to arrive at the breakdown of the lump-sum price—local currency portion:

- 1. Rates for Equipment Usage or Rental or for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenditures.*

This appendix will exclusively be used for determining remuneration for additional Services.

Appendix F - Services and Facilities Provided by the Employer

Appendix G - Performance Incentive Compensation Appendix

Performance Incentive Compensation Appendix Provisions

ARTICLE 1- GENERAL

1.1 Documents Comprising the Performance Incentive Compensation Appendix

The Performance Incentive Compensation Appendix consists of:

- (a) the Performance Incentive Compensation Appendix Provisions;
- (b) Attachment #1 Incentive Compensation Calculation Procedure Notes; and
- (c) Attachment #2 Incentive Compensation Charts 1-[].

ARTICLE 2- THE PERFORMANCE INCENTIVE COMPENSATION

2.1 Performance Incentive Compensation Limits

- (1) The Performance Incentive Compensation paid to the Service Provider shall not exceed the equivalent of \$[] U.S. over the term of the Contract.
- (2) The actual amount paid to the service Provider as Performance Incentive Compensation shall be determined by the extent to which the Service Provider achieves the performance criteria set out in the Incentive Compensation Charts and by the application of the calculations set out in the Incentive Calculation Procedure Notes for the applicable Contract Year.
- (3) If the Service Provider fails to meet the “Excellent” rating set out in the Incentive Compensation Chart, in any Contract Year, the Service Provider will be obliged to make up the shortfall in the subsequent Contract Year, as well as meet the performance targets for that Contract Year.
- (4) Except as the Employer may, in its sole discretion, otherwise determine based on exceptional circumstances, if the Service Provider fails to attain the Maximum Annual Incentive Compensation in any Contract Year, the shortfall will not be available to the Service Provider in the subsequent Contract Years and the equivalent of \$[] U.S. per Contract Year maximum will not be increased.
- (5) For the purpose of calculating the equivalency of \$[] U.S. and \$[] U.S. pursuant to Sections 2.1(1) and 2.1(2) of this Performance Incentive Compensation Appendix, the equivalency shall be calculated as of the date of payment of the Performance Incentive Compensation.

**ATTACHMENT # 1 – APPENDIX G
INCENTIVE COMPENSATION CALCULATION PROCEDURE NOTES**

[SAMPLE: This part is to be designed on a case by case approach]

**PART A .THE METHOD FOR CALCULATING PERFORMANCE INCENTIVE
COMPENSATION IN EACH CONTRACT YEAR**

I. The Performance Incentive Compensation for each Contract Year shall be calculated as follows:

$$\text{Compensation} = \text{Composite Score} \times 0.2 \times \text{Maximum Annual Incentive Compensation}$$

Where:

- (i) The Maximum Annual Incentive Compensation is calculated as set out in Section 2.1 of the Performance Incentive Compensation Appendix Provisions; and
- (ii) The Composite Score is calculated in accordance with “Part B-The Method for Calculating the Composite Score” of these Incentive Compensation Calculation Procedure Notes.

PART B .THE METHOD FOR CALCULATING THE COMPOSITE SCORE

1. The Composite Score for each Contract Year shall be as follows:

Composite Score Total of All Weighted Scores **for the Performance Criteria**

Where:

- (i) The Weighted Score for each Performance Criterion equals Criterion Weight x Criterion Value;
- (ii) The Criterion Value is measured from “Excellent” to “Poor” with corresponding values of 5 (for “Excellent” performance) to 1 (for “Poor” performance) as set out in the Incentive Compensation Charts and evaluated based on the performance of the Service Provider;
- (iii) The Criterion Value which the Operator receives for any Performance Criterion is based upon the technical standards set out in the Incentive Compensation Charts under the headings, “Excellent”, “Very Good”, “Good”, “Fair”, and “Poor” as compared against the Operator’s actual technical standards in each Contract Year; and
- (iv) If the Service Provider’s actual performance in a Contract Year,
 - (a) exceeds the technical standards for an “Excellent” Criterion Value, then the Criterion Value shall be 5;
 - (b) is less than the technical standards for a “Poor” Criterion Value, then the Criterion Value shall be zero; or
 - (c) is in between the technical standards for two Criterion Values, then the Criterion

Value shall be rounded down to the nearest whole number or 0.5 decimal point.

2. For the purpose of clarity, it is noted that there are only ten Criterion Values to be used as follows: 0, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5 and 5.

3. Notwithstanding paragraphs 1 and 2 above, with respect to the Performance Criterion relating to institutional improvements in Attachment #2 The Incentive Compensation Charts 1-8,

- (a) if the Service Provider’s actual performance in a Contract Year is less than the technical standard for a “Fair” Criterion Value, then the Criterion Value shall be zero;
- (b) for the purpose of clarity, it is noted that there are only three Criterion Values to be used as follows: 0, 2 and 5; and
- (c) each of the documents or plans listed under the Performance Criterion shall be scored with the appropriate Criterion Value and a mean average score will be taken to calculate the Criterion Value for the Performance Criterion, which shall be rounded down to the nearest whole point or 0.5 decimal point.

4. For ease of reference, the following calculation represents the calculation of the Composite Score for a hypothetical Service Provider for four performance criteria in one Contract Year.

Sample Incentive Compensation Chart

| Performance Criterion | | Units | Criterion Values | | | | |
|-----------------------|--|-------|------------------|-----------|------|------|------|
| | | | Weight | | | | |
| | | | Excellent | Very Good | Good | Fair | Poor |
| 1. | e.g. Electricity use [% reduction in kW. hr consumed from Base Year] | 0.30 | 65 | 55 | 50 | 40 | 30 |
| 2. | [Criterion 2] [] | 0.25 | 20 | 19 | 17 | 16 | 15 |
| 3. | [Criterion 3] [] | 0.15 | 30 | 25 | 20 | 15 | 10 |
| 4. | [Criterion ~] [] | 0.30 | 90 | 85 | 80 | 75 | 70 |

The following table demonstrates the procedure for the calculation of the “Composite Score”, if at the end of the year the achievements of the Service Provider are as follows:

| | | |
|----|------------------------|----|
| 1. | [e.g. Electricity use] | 57 |
| 2. | [Criterion 2] | 22 |
| 3. | [Criterion 3] | 29 |
| 4. | [Criterion 4] | 69 |

Performance Incentive Compensation Appendix

Chart 1

Performance Incentive Obligations

Year [1]

| Services | | | Criterion Values | | | | | |
|-------------|---|---|------------------|--|-------------|--------|--|--------|
| Apndx. Ref. | Performance Criterion | Units | Weight | Excellent 5 | Very Good 4 | Good 3 | Fair 2 | Poor 1 |
| | [Development of Plans and Programs ¹] | Quality and Timeliness | [0.45] | Completed on time with no need for revision to the substance of the document | N/A | N/A | Completed on time but requires revision to the substance of the document | N/A |
| | [Energy Management] | % reduction of kilowatt hours of electricity per unit produced from Base Year | [0.25] | 4 | 3.5 | 3 | 2.5 | 2 |
| | [Computerized Billing and Collection System] | number of days after the Starting Date until the computerized billing and collection system is in place | [0.30] | 140 | 150 | 160 | 170 | 180 |

[Note: The chart is a sample only.]

(1) In respect of the Plans and Programs each plan or program listed in Section [•] shall be given a score of either 5 (Excellent), 2 (Fair) or (0) and the average score for all plans and programs shall be multiplied by the Criteria Weight. The average score shall be rounded to the nearest .5 decimal.

**Appendix H- CODE OF CONDUCT FOR SERVICE PROVIDER'S
PERSONNEL**

Appendix I- Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration for Subcontractors

[The following table shall be filled in by each subcontractor proposed by the Contractor, that was not named in the Contract]

Subcontractor’s Name: *[insert full name]*
 Date: *[insert day, month, year]*
 Contract reference *[insert contract reference]*
 Page *[insert page number]* of *[insert total number]* pages

| SEA and/or SH Declaration |
|---|
| <p>We:</p> <p><input type="checkbox"/> (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.</p> <p><input type="checkbox"/> (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.</p> <p><input type="checkbox"/> (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations. An arbitral award on the disqualification case has been made in our favor.</p> |
| <p><i>[If (c) above is applicable, attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]</i></p> |

Name of the Subcontractor _____

Name of the person duly authorized to sign on behalf of the Subcontractor _____

Title of the person signing on behalf of the Subcontractor _____

Signature of the person named above _____

Date signed _____ day of _____, _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date signed _____ day of _____, _____

Section X - Contract Forms

Table of Forms

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Notification of Intention to Award

[This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid.]

[Send this Notification to the Bidder's Authorized Representative named in the Bidder Information Form]

For the attention of Bidder's Authorized Representative

Name: *[insert Authorized Representative's name]*

Address: *[insert Authorized Representative's Address]*

Telephone/Fax numbers: *[insert Authorized Representative's telephone/fax numbers]*

Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION: This Notification is sent by: *[email/fax]* on *[date]* (local time)

Notification of Intention to Award

Employer: *[insert the name of the Employer]*

Project: *[insert name of project]*

Contract title: *[insert the name of the contract]*

Country: *[insert country where RFB is issued]*

Loan No. /Credit No. / Grant No.: *[insert reference number for loan/credit/grant]*

RFB No: *[insert RFB reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period you may:

- a) request a debriefing in relation to the evaluation of your Bid, and/or
- b) submit a Procurement-related Complaint in relation to the decision to award the contract.

1. The successful Bidder

| | |
|------------------------|--|
| Name: | <i>[insert name of successful Bidder]</i> |
| Address: | <i>[insert address of the successful Bidder]</i> |
| Contract price: | <i>[insert contract price of the successful Bid]</i> |

2. Other Bidders *[INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid's price was evaluated include the evaluated price as well as the Bid price as read out.]*

| Name of Bidder | Bid price | Evaluated Bid price (if applicable) |
|----------------|--------------------|--|
| [insert name] | [insert Bid price] | [insert evaluated price] |
| [insert name] | [insert Bid price] | [insert evaluated price] |
| [insert name] | [insert Bid price] | [insert evaluated price] |
| [insert name] | [insert Bid price] | [insert evaluated price] |
| [insert name] | [insert Bid price] | [insert evaluated price] |

3. Reason/s why your Bid was unsuccessful

[INSTRUCTIONS: State the reason/s why this Bidder's Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder's Bid or (b) information that is marked confidential by the Bidder in its Bid.]

4. How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:

Attention: [insert full name of person, if applicable]

Title/position: [insert title/position]

Agency: [insert name of Employer]

Email address: [insert email address]

Fax number: [insert fax number] *delete if not used*

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15)

Business Days from the date of publication of the Contract Award Notice.

5. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).

Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:

Attention: [insert full name of person, if applicable]

Title/position: [insert title/position]

Agency: [insert name of Employer]

Email address: [insert email address]

Fax number: [insert fax number] *delete if not used*

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

Further information:

For more information see the [Procurement Regulations for IPF Borrowers \(Procurement Regulations\)\[https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005\]](https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005) (Annex III). You should read these provisions before preparing and submitting your complaint. In addition, the World Bank’s Guidance “[How to make a Procurement-related Complaint](http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework#framework)” [<http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework#framework>] provides a useful explanation of the process, as well as a sample letter of complaint.

In summary, there are four essential requirements:

1. You must be an ‘interested party’. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all of the information required by the Procurement Regulations (as described in Annex III).

6. Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

Beneficial Ownership Disclosure Form

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form (“Form”) is to be completed by the successful Bidder¹. In case of joint venture, the Bidder must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions:

- *directly or indirectly holding 25% or more of the shares*
- *directly or indirectly holding 25% or more of the voting rights*
- *directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder*

RFB No.: *[insert number of RFB process]*

Request for Bid No.: *[insert identification]*

To: *[insert complete name of Employer]*

In response to your request in the Letter of Acceptance dated *[insert date of letter of Acceptance]* to furnish additional information on beneficial ownership: *[select one option as applicable and delete the options that are not applicable]*

(i) we hereby provide the following beneficial ownership information.

Details of beneficial ownership

| Identity of Beneficial Owner | Directly or indirectly holding 25% or more of the shares (Yes / No) | Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No) | Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder (Yes / No) |
|------------------------------|--|--|---|
| | | | |

| | | | |
|---|--|--|--|
| <i>[include full name (last, middle, first), nationality, country of residence]</i> | | | |
|---|--|--|--|

OR

(ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions:*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

OR

(iii) *We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Bidder shall provide explanation on why it is unable to identify any Beneficial Owner]*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder”

Name of the Bidder: **[insert complete name of the Bidder]*_____

Name of the person duly authorized to sign the Bid on behalf of the Bidder: ***[insert complete name of person duly authorized to sign the Bid]*_____

Title of the person signing the Bid: *[insert complete title of the person signing the Bid]*_____

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*_____

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*_____

* In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to “Bidder” in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

** Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

Letter of Acceptance

[letterhead paper of the Employer]

[date]

To: *[name and address of the Service Provider]*

This is to notify you that your Bid dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Special Conditions of Contract]* for the Contract Price of the equivalent of *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish (i) the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Forms and (ii) the additional information on beneficial ownership in accordance with BDS ITB 45.1, within eight (8) Business days using the Beneficial Ownership Disclosure Form, included in Section X, - Contract Forms, of the bidding document.

Note: Insert one of the 3 options for the second paragraph. The first option should be used if the Bidder has not objected the name proposed for Adjudicator. The second option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was accepted by the Employer. And the third option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was not accepted by the Employer.

We confirm that *[insert name proposed by Employer in the Bid Data Sheet]*,

or

We accept that *[name proposed by Bidder]* be appointed as the Adjudicator

or

We do not accept that *[name proposed by Bidder]* be appointed as Adjudicator, and by sending a copy of this letter of acceptance to *[insert the name of the Appointing Authority]*, we are hereby requesting *[name]*, the Appointing Authority, to appoint the Adjudicator in accordance with ITB 47.1

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract

Contract Agreement

This AGREEMENT is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Employer]* (hereinafter called the “Employer”) and, on the other hand, *[name of Service Provider]* (hereinafter called the “Service Provider”).

[Note: In the text below text in brackets is optional; all notes should be deleted in final text. If the Service Provider consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Employer”) and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Employer for all the Service Provider’s obligations under this Contract, namely, [name of Service Provider] and [name of Service Provider] (hereinafter called the “Service Provider”).]

WHEREAS

- (a) the Employer has requested the Service Provider to provide certain Services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the “Services”);
- (b) the Service Provider, having represented to the Employer that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of.....;
- (c) the Employer has received [*or has applied for*] a loan from the International Bank for Reconstruction and Development (hereinafter called the “Bank”) [*or a credit from the International Development Association (hereinafter called the “Association”)*] towards the cost of the Services and intends to apply a portion of the proceeds of this loan [*or credit*] to eligible payments under this Contract, it being understood (i) that payments by the Bank [*or Association*] will be made only at the request of the Employer and upon approval by the Bank [*or Association*], (ii) that such payments will be subject, in all respects, to the terms and conditions of the agreement providing for the loan [*or credit*], and (iii) that no party other than the Employer shall derive any rights from the agreement providing for the loan [*or credit*] or have any claim to the loan [*or credit*] proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents shall be deemed to form and be read and construed as part of this Agreement, and the priority of the documents shall be as follows:

- (a) the Letter of Acceptance;
- (b) the Letter of Bid;
- (c) the Special Conditions of Contract;
- (d) the General Conditions of Contract;
- (e) the Specifications;
- (f) the Priced Activity Schedule; and

- (g) The following Appendices: [*Note: If any of these Appendices are not used, the words “Not Used” should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.*]

Appendix A: Description of the Services

Appendix B: Schedule of Payments

Appendix C: Key Personnel and Subcontractors

Appendix D: Breakdown of Contract Price in Foreign Currency

Appendix E: Breakdown of Contract Price in Local Currency

Appendix F: Services and Facilities Provided by the Employer

Appendix G: Performance Incentive Compensation

Appendix H: Code of Conduct for Service Provider’s Personnel

2. The mutual rights and obligations of the Employer and the Service Provider shall be as set forth in the Contract, in particular:
- (a) the Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Employer shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of _____ on the day, month and year indicated above.

For and on behalf of the Employer:

Signed: *[insert signature]*

in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert identification of official witness]*

For and on behalf of the Service Provider:

Signed: *[insert signature of authorized representative(s) of the Service Provider]*

in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert identification of official witness]*

Performance Security

Option 1: (Bank Guarantee)

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Employer]*

Date: *_[Insert date of issue]*

PERFORMANCE GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *_[insert name of Service Provider which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the Non-Consulting Services of *_[insert name of contract and brief description of the Non-Consulting Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* () *[insert amount in words]*,¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

¹ *The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency (ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.*

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

² *Insert the date twenty-eight days after the expected completion date as described in GCC. The Service Provider should note that in the event of an extension of this date for completion of the Contract, the Service Provider would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Service Provider might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

Option 2: Performance Bond

By this Bond *[insert name of Principal]* as Principal (hereinafter called “the Service Provider”) and *[insert name of Surety]* as Surety (hereinafter called “the Surety”), are held and firmly bound unto *[insert name of Employer]* as Obligee (hereinafter called “the Service Provider”) in the amount of *[insert amount in words and figures]*, for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Service Provider and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Service Provider has entered into a written Agreement with the Employer dated the _____ day of _____, 20 ____, for *[name of contract and brief description of Non-Consulting Services]* in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Service Provider shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Service Provider shall be, and declared by the Employer to be, in default under the Contract, the Employer having performed the Employer’s obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- (1) complete the Contract in accordance with its terms and conditions; or
- (2) obtain a Bid or Bids from qualified Bidders for submission to the Employer for completing the Contract in accordance with its terms and conditions, and upon determination by the Employer and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Employer and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Employer to the Service Provider under the Contract, less the amount properly paid by Employer to the Service Provider; or
- (3) pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Employer named herein or the heirs, executors, administrators, successors, and assigns of the Employer.

In testimony whereof, the Service Provider has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this _____ day of _____ 20 ____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

Advance Payment Security

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Insert name and Address of Employer]*

Date: *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[insert name of Service Provider, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called “the Applicant”) has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of Non-Consulting Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* (_____) *[insert amount in words]*¹ upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has used the advance payment for purposes other than toward delivery of Services; or
- (b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary’s bank stating that the advance payment referred to above has been

¹ *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.*

credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the *[insert day]* day of *[insert month]*, 2 *[insert year]*, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

ANNEX I.



The Republic of Uganda

MINISTRY OF WATER AND ENVIRONMENT

**IRRIGATION FOR CLIMATE RESILIENCE PROJECT
(ICRP)**

Terms of Reference

For

**Non- Consultancy Services for supporting implementation of
catchment management measures in LOT 1: Kyabaganda, Kyezo,
Mishumba Micro-Catchments**

OCTOBER 2023

1 INTRODUCTION

The Government of Uganda with funding from the World Bank is supporting implementation of the Irrigation for Climate Resilience Project (ICRP). The development objective of the Project is to provide farmers in the project areas with access to irrigation and other agricultural services, and to establish management arrangements for irrigation service delivery. The project will among others activities develop irrigation in Kabuyanda (Isingiro district) through establishing the Kabuyanda irrigation scheme. In Kabuyanda Irrigation scheme a sustainable farmer-based management system shall be established to manage, operate and maintain the scheme infrastructure once constructed.

In a bid to ensure sustainability of the water resource, feeding into the Kabuyanda irrigation scheme, and also to address catchment degradation issues, promote conservation and enhance sustainable use of natural resources of the micro-Catchments for the benefit of the communities around the irrigation scheme, micro-catchment plan for micro catchments around the Kabuyanda Irrigation Scheme has been prepared for implementation. The Plan entails among others identified priority measures that try to address environmental threats at micro-Catchment scale and opportunities for development. Within the Plans, there are interventions that address the overall water/natural resources issues within the micro-Catchments. It is envisaged that the Plans when implemented shall enhance the protection, management and development of the water and related resources for socio-economic development of communities within the micro-catchments.

The Kabuyanda Irrigation scheme is located in three micro-catchments namely; Kyabaganda, Kyezo and Mishumbi in Isingiro, Ntungamo and Rwampara Districts respectively. The Project shall provide support to implementation of priority catchment management and restoration activities in Kyabaganda, Kyezo and Mishumbi micro-catchment found in Victoria Water management Zone (VWMZ). The priority catchment management and restoration activities have been identified in the Plan and include investments in soil and water conservation, riverbank and wetland protection; tree growing; and livelihood improvement for affected communities.

In this regard, the Government of Uganda, with funding from the World Bank under the Irrigation for Climate Resilience Project (ICRP) intends to support the implementation of the priority catchment management and restoration activities in Kyabaganda, Kyezo and Mishumbi micro-Catchment as identified in the developed micro-Catchment Management Plan around Kabuyanda Irrigation Scheme.

1.1 MICRO-CATCHMENTS' DESCRIPTION

1.1.1 Location

The proposed interventions around the Kabuyanda Irrigation Scheme will be implemented in the three micro-catchments of Mishumba 108.888 km² (36.8%), Kyabaganda 104.259 km² (35.2%), Kyezo 82.815km² (27.9%). The total study area surrounding the irrigation scheme is about 295.815 km² of which 67.9% (about 200.923 km²) is in Isingiro District, 9.5% (about 28.167 km²) is in Ntungamo, and the remaining 22.6% (about 66.725 km²) is in Rwampara district. The micro-catchments form part of the Kagera catchment.

Table 1: District Area Coverage of the Micro-catchments

| Name of the Micro-Catchment | Area (km ²) | | | |
|-----------------------------|-------------------------|----------|----------|---------|
| | Isingiro | Ntungamo | Rwampara | Total |
| Mishumba | 27.273 | 28.167 | 53.448 | 108.888 |
| Kyabaganda | 90.982 | - | 13.277 | 104.259 |
| Kyezo | 82.668 | - | - | 82.668 |
| Grand Total | 200.923 | 28.167 | 66.725 | 295.815 |

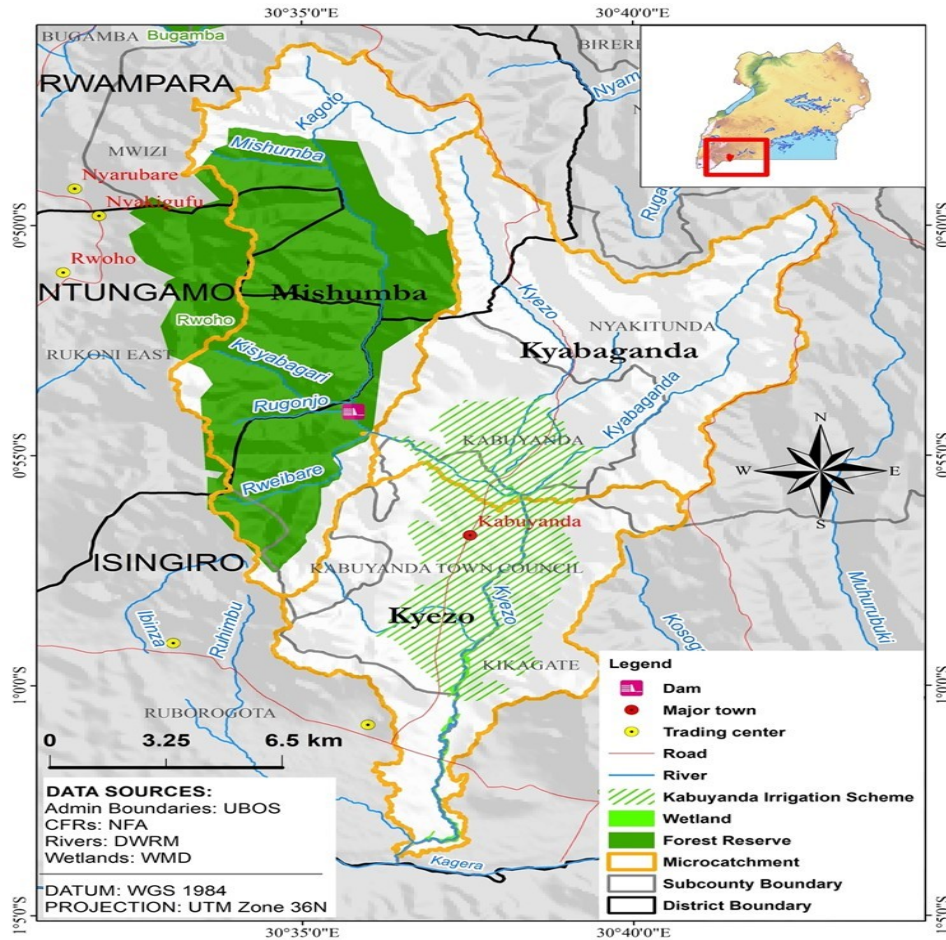


Figure 1: Location of the micro-catchments

1.1.2 Physical Environment

a) Climate

The micro-catchments have a bimodal rainfall pattern with an annual average and annual maximum rainfall of 952mm and 1514mm respectively.

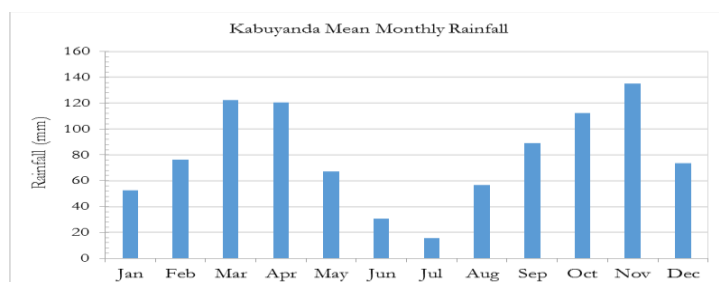


Figure 2: Monthly rainfall distribution in Kabuyanda catchment

b) Topography

Surface drainage of any given area is greatly influenced by the topography. From the DEM used, the minimum elevation within the study area is 1218 masl at the exit of Kyezo micro-catchment while the maximum is about 2030 masl in the upstream micro-catchments of Mishumba and Kyabaganda. This implies that water drains from the northern to the southern parts of the catchment.

c) Geology

The Kabuyanda sub-catchment is covered by five (5) geological classes. The geology of a catchment influences its drainage, availability of groundwater and its ease of abstraction and helps in the understanding of complex hydrogeologic systems.

Majority of the catchment (75.19%) is covered by Mudstone, shale, slate, phyllite rocks. The coverage of various rock types across the micro-catchments is summarised in Table 2.

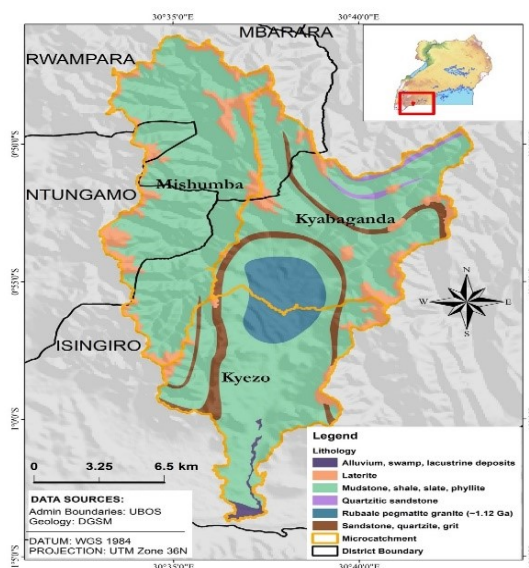


Figure 3: Geology of the Study Area

Table 2: Micro-catchment Geological Properties

| Name | Lithology | Percentage coverage |
|------------|--------------------------------------|---------------------|
| Kyezo | Alluvium, swamp, lacustrine deposits | 2.6% |
| | Laterite | 5.4% |
| | Mudstone, shale, slate, phyllite | 73.1% |
| | Rubaale pegmatite granite (~1.12 Ga) | 9.2% |
| | Sandstone, quartzite, grit | 9.4% |
| Kyabaganda | Laterite | 11.6% |
| | Mudstone, shale, slate, phyllite | 66.6% |
| | Quartzitic sandstone | 2.5% |
| | Rubaale pegmatite granite (~1.12 Ga) | 11.2% |
| | Sandstone, quartzite, grit | 7.8% |
| Mishumba | Laterite | 14.9% |
| | Mudstone, shale, slate, phyllite | 84.9% |
| | Sandstone, quartzite, grit | 0.08% |

d) Soils

The soils comprise largely (71.92%) of Dystric Regosols. These cover mostly the higher altitude areas of the sub-catchment. The valleys and low altitude areas are dominated by Gleysols (7.05%) and Lixic Ferralsols (21.03%). The distribution of the soils across the micro-catchments is shown in figure 3.

e) Rivers, Lakes and Wetlands

The micro-catchment is endowed with water resources, comprising of rivers and wetlands. Wetlands though small are predominantly located in the Kyezo micro-catchment. The main river draining the micro-catchments is River Kyezo. The river is fed by several tributaries such as Kyezo, Ihombya, Kagoto, Kinyara, Kisyabagari, Kyabaganda,

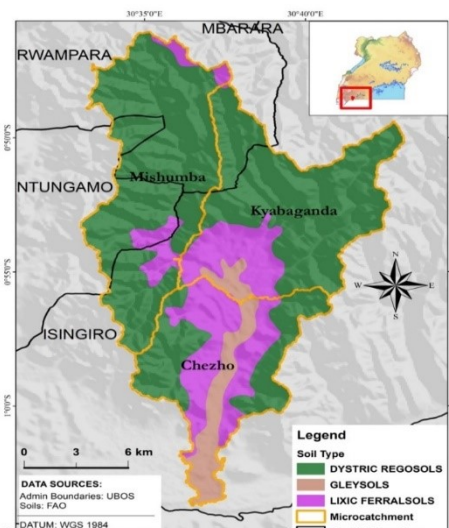


Figure 4: Soil Map for the Study Area

Mishumba, Rugonjo, Rweibare and Rwemango. The hydrological features (rivers and wetlands) are presented in figure 5.

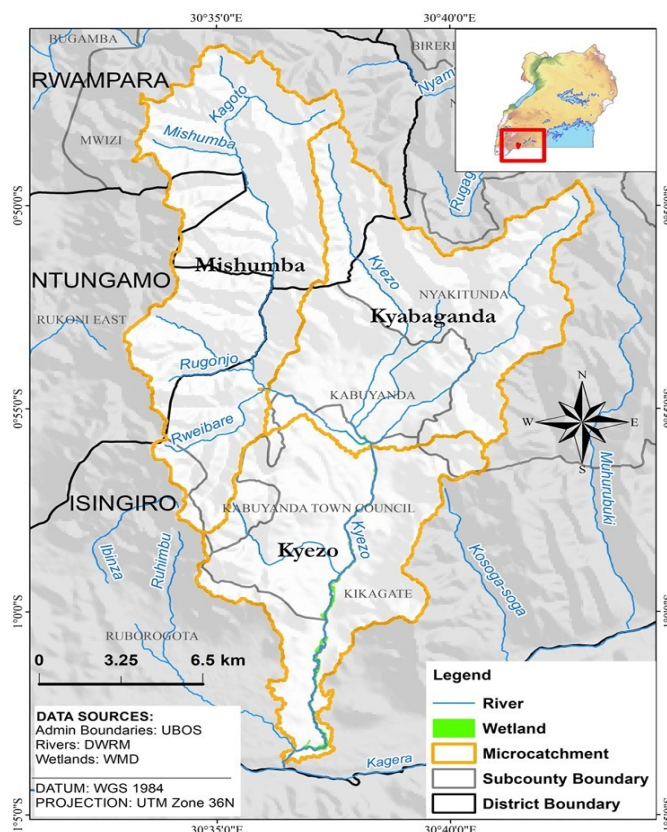


Figure 5: Hydrology of the micro-catchments

1.1.3 Socio-Economic Environment

a) Administrative Structures

The Kyabaganda micro-catchment measures approximately 104km² composed of the Nyakitunda parish, in Nyakitunda sub-county as well as the parishes of Kabugu, Kagara, Kanywamaizi and Rwakakwenda located within Kabuyanda Sub- County. The Kyezo Micro catchment covers a total of 82SqKm covering the sub-counties of Kabuyanda Town Council (Wards of Central, Northern, Iryango, Kisoryo,) Kabuyanda S/C, Kitagate Sub-County, and Ruborogo within Isingiro District. This micro catchment falls under one District of Isingiro district.

The Mishumba micro catchment stretches over 108km², and lies within the Rwakakwenda parish in Kabuyanda Sub-County, Kirungua and Rwoho parishes of Rukoni East in Ntungamo District, and Bushwere, Kigaaga, Ngoma, Rukarabo and Ryamiyonga parishes in Mwizi sub-county of Rwampara District. The micro-catchments are under administrative structures of the local governments which have autonomy to formulation and development of objectives and budgets in line with the policies of the Central Government.

b) Population

The micro-catchments have a total population of 138,870 people (66,185 males; 72,685 females) and 20,407 households. Kikagati Sub-County (downstream) has the highest population at 42,999 people (20,264 males; 22,735 females) and 8,766 households. Mwizi sub-county (up-stream) has the second highest population at 28,226 people (13,757 males; 14,469 females) and 1,118 households. Nyakitunda Sub-County has 22,337 people (10,560 males; 11,777 females) and

1,031 households. Kabuyanda Sub-County (dam site area) has 21,193 people (10,036 males; 11,157 females) and 4,297 households. Ruborogota Sub-County has 7,739 people (3,757 males; 3,982 females) and 3,709 households. Kabuyanda Town Council has 16,376 people (7,811 males; 8,565 females) and 3,567 households. Rukoni East Sub-County has 5,928 people (2,894 males; 3,034 females) and 278 households. The 2014 NHPC indicated that the annual growth rate in the micro catchment district is 3% per annum and a fertility rate of 6.7 children per woman higher than the national rate of 6.2. The Kyabaganda Micro catchment which is the upstream area (Mwizi and Nyakitunda) has the highest population at 56,491 people and 2,427 households. The Kyezo micro catchment, the midstream area (Kabuyanda SC and Kabuyanda TC) has 37,569 people and 7,864 households, and the Mishumba catchment downstream area has a population at 50,738 people and 10,394 households.

c) Household Characteristics

There is increasing population within the micro-catchments given the high population annual growth rate of 3%, which is not commensurate with the available resources especially land which is mainly the means of production. The average household size for Kyabaganda, Kyezo, and Mishumba was 5.6, 5.8, and 5.3 persons. Households were also found with the persons with disabilities with the majority (38.7%) being in Kyezo. On average, households in Kabuyanda had at least two (2) acres of land, and this land was used mainly for crop farming.

In addition, the housing conditions across the micro catchment were good as the majority of households i.e., 88.6%, 96%, and 92.6% in Kyabaganda, Kyezo, and Mishumba respectively were roofed with iron sheets. The results further showed that majority of households within the micro-catchment own a radio and a mobile phone. However, fewer households lack any of the commonest modes of transport such as bicycles, motorcycles or vehicles.

Table 3: Results on key household characteristics

| S/n | Characteristics | Kyabaganda | Kyezo | Mishumba | |
|-----|--|-----------------------|-------|----------|-------|
| 1 | Average household size | 5.6 | 5.8 | 5.3 | |
| 2 | Female Headed Households | 36.4% | 27.0% | 20.6% | |
| 3 | Households having persons with disabilities | 15.9% | 38.7% | 23.5% | |
| 4 | Land size owned (acres) | 2.6 | 2.7 | 2.9 | |
| 5 | Land size utilized for crop farming (acres) | 2.0 | 1.9 | 1.9 | |
| 6 | Highest level of education of household head | Completed Primary | 18.2% | 22.1% | 29.4% |
| | | Not completed Primary | 29.5% | 22.1% | 20.6% |
| | | No formal education | 15.9% | 34.4% | 16.2% |
| 7 | Households having persons with disabilities | 15.9% | 38.7% | 23.5% | |
| 8 | Roofing material of house | Clay tiles | 9.1% | 2% | 5.9% |
| | | Iron sheets | 88.6% | 96% | 92.6% |
| | | Other | 2.3% | 2% | 1.5% |
| 9 | Household assets | Own a Radio | 77.3% | 77.3% | 83.8% |
| | | Own a TV | 20.5% | 66.9% | 33.8% |
| | | Own a mobile phone | 86.4% | 66.9% | 94.1% |
| | | No mode of transport | 30.0% | 37.4% | 31.6% |

d) Transport Infrastructure

The road network within the micro-catchments is well distributed. The main types of roads are feeder roads and community access roads maintained by the local government and UNRA for the main highways. The road conditions are a mixture of good, fair, and bad, and they generally become impassable during the wet season. This makes it hard to access some of the areas.

The road network within the irrigable area stands at 259.84 km. By distribution, Kikagate SC has a peak at 83.03 km; 75.99 km in Ruborogota SC; 56.6 km in Kabuyanda SC and 44.82 km in Kabuyanda TC.

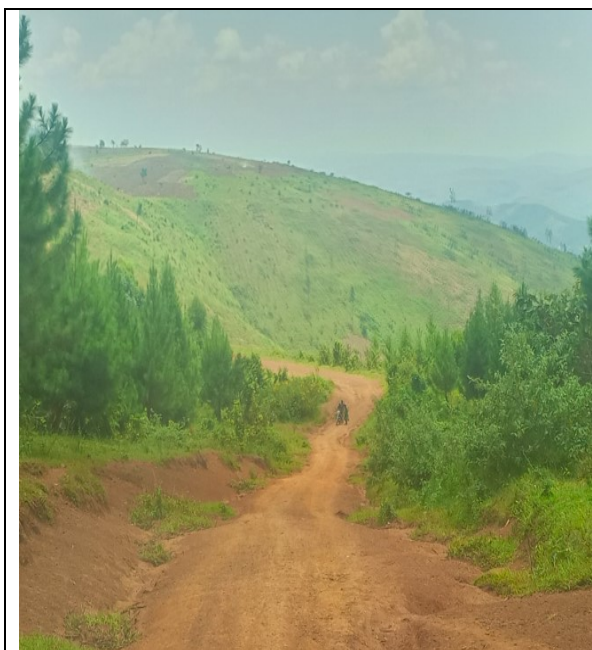


Plate 1: Road in Mishumba Catchment



Plate 2: Road in Kyabaganda Catchment

The most owned and used transport means within the micro-catchments generally i.e., bicycle (32.79%), motorcycle (18.18%), vehicle (14.29%).

Table 4: Households (HH) owning Transport means

| | Kyabaganda | Kyezo | Mishumba | Total |
|----------------------------------|-------------------|--------|----------|--------|
| HH owning Transport means | Percentage | | | |
| Bicycle | 28% | 35.70% | 28.95% | 32.79% |
| Motor cycle | 30% | 20.90% | 3.95% | 18.18% |
| Vehicle | 12% | 6.00% | 35.53% | 14.29% |
| None of the above | 30% | 37.40% | 31.58% | 34.74% |
| Grand Total | 100 | 100% | 100% | 100% |

Bicycles and motorcycles generally are mainly used as means of transport, as they can easily juggle through the hilly areas, and bad roads and can ably access the main access roads with the merchandize especially matooke and other merchandize in the micro-catchments. The situation with the impassable roads will deter the development of the agricultural sector which is the main source of livelihood within the micro catchments. There should therefore be an effort by the Central and Local governments to mobilize funds and rehabilitate the roads to promote accessibility and development within the catchment. The opening up of roads and rehabilitation of the existing roads will open up markets for the products within the micro-catchments including farm products, timber, animals among others.

e) Economic Activities and Livelihoods

Across the three micro-catchments, most of the community members were involved in subsistence agriculture and a few taking on commercialized crop farming. Agriculture has been supported by the prevailing fertile soils, good climate, and market for the crops being grown among other factors. Major crops grown include beans, matoke, and maize. It was noted during community meetings that, the drive to cultivate in wetlands has also increased due to high related crop yields associated with soil fertility and highwater retention by soils in the wetlands.

From the study undertaken farming (75.64%) is widely undertaken throughout the micro-catchments. Other sources of income include trading (shops) (6.55%), and animal rearing (5.45%), among others.

Table 5: Sources of income in the micro-catchments

| HH source of Income | Kyabaganda | Kyezo | Mishumba | Total |
|----------------------|------------|--------|----------|--------|
| | Percentage | | | |
| Animal farming | 9.10% | 4.30% | 5.90% | 5.45% |
| Crop farming | 63.60% | 83.40% | 64.70% | 75.64% |
| Lumbering | 2.30% | 0% | 7.40% | 2.18% |
| Monthly salary/wages | 9.10% | 2.50% | 2.90% | 3.64% |
| Other | 4.50% | 4.30% | 7.40% | 5.09% |
| Poultry farming | 4.50% | 0.00% | 1.50% | 1.09% |
| Retail shop | 6.80% | 4.90% | 10.30% | 6.55% |
| Fish Farming | 0.00% | 0.60% | 0.00% | 0.36% |

Tree growing is mainly done on the slopes of hills and the number of hectares is evident in Mishumba micro-catchment. Trees/timber are used as poles for the construction of structures, fire wood among others.



Figure 6: Matooke gardens and Lumbering within the micro catchments

Agriculture is the most livelihood activity being undertaken with crop farming in the lead. Among the main crops grown within the three micro-catchments include beans (24.73%), matooke (23.97%), maize (23.05%), cassava (10.23%) among others. It should be noted that matooke is both a cash crop and food for home consumption.

Specifically, in Kyabaganda micro-catchment, sub-counties of Kabuyanda and Nyakitunda in Isingiro are predominantly crop farmers and Mwizi in Rwampara District is dependent on crop farming. The major crops grown include matooke (2865), Beans (27.4%), and maize 23.8%). Other crops include; ground nuts (9.5%0, cassava, (4.8%) sorghum (2.4%), millet 1.2%) and other crops (2.4%). Among those who keep animals, the main animals kept include; goats (42.9%), cows (28.6%), sheep (21.4%) and others adding up to (7.1%).

Table 6: Crops grown and animals reared in the micro-catchments

| Crops Grown | Kyabaganda | Kyezo | Mishumba | Total |
|-----------------------|-------------|-------------|-------------|-------------|
| | Percentage | | | |
| Beans | 27.40% | 24.80% | 23.17% | 24.73% |
| Groundnuts | 9.50% | 2.70% | 3.05% | 3.66% |
| Maize | 23.80% | 24.60% | 18.90% | 23.05% |
| Matooke | 28.60% | 23.60% | 22.56% | 23.97% |
| Sorghum | 2.40% | 8.60% | 6.10% | 7.18% |
| Millet | 1.20% | 3.90% | 3.66% | 3.51% |
| Cassava | 4.80% | 7.90% | 18.90% | 10.23% |
| Other | 2.40% | 3.90% | 3.66% | 3.66% |
| Total | 100% | 100% | 100% | 100% |
| Animals reared | | | | |
| Cows | 28.60% | 23.80% | 18% | 23.9% |
| Goats | 42.90% | 42.90% | 55% | 45.7% |
| Sheep | 21.40% | 14.30% | 27% | 19.6% |
| Other | 7.10% | 19.00% | 0% | 10.9% |
| Total | 100% | 100% | 100% | 100% |

It was also revealed that there are a number of animals that are reared by a moderate number of community members across all the micro-catchments. Goats are the most kept animals (45.7%), cows (23.9%), and sheep (19.6%) among other animals. Specifically, from Kyabaganda micro-catchment, the main animals kept include; goats (42.9%), cows (28.6%), sheep (21.4%) and others adding up to (7.1%). In Kyezo, the main animals kept include goats (42.9%), cows (28.6%), and sheep (21.4%). In Mishumba, the main animals kept include goats (55%), cows (18%), and sheep (27%). The animals are mainly tethered, and others are grazed on the surrounding hills.

It should be observed that goats are kept mainly because there is limited land, as most of the land in the valleys is devoted mainly to crop farming. The goats and other animals apart from cattle need relatively small pieces of land compared to which the communities within the catchment have resorted to supplement incomes from crop production. However, the farmers within the catchment should be encouraged to rear animals not only for supplementing the household incomes, but also to provide manure for crop farming that would boost crop production. The government projects including the Parish Development Model (PDM) should be embraced to support the livelihood activities within the catchment.

f) Access to safe water supply

The Sector Performance Report (2020) indicated that the national safe water coverage in rural areas was estimated to be at 68%, against the functionality of the water sources at 85%. However, the population using an improved drinking water source in urban areas stood at 70.5% reducing from 79% in June 2019. The same report indicated that the main technology option used for water supply improvement in rural areas is mainly the sinking of boreholes (44.7%), shallow wells (23.1%), and protected springs (20.8%). Others include tap stands/kiosks of piped schemes and rainwater harvesting (11.3%).

The Isingiro district's safe water coverage was recorded to be at 35%, which is far below the national standard of 66%, while the Ntungamo district is 73% which is far better than Isingiro

district. The reported cause of this phenomenon is because of the increased encroachment and degradation of catchment ranging from the impacts of increased population, expansion of the urban areas, and demand for the catchment resources among others. The increasing urbanization in the micro-catchments has ultimately led to increasing demand for water, yet the districts within the micro catchments are generally challenged with inadequate safe and clean water provision to the communities for both domestic consumption and production. The Isingiro District Development Plan indicated that households accessing piped water in Kabuyanda sub-County stand at 888, and Nyakitunda sub-county (Migyera and Ruhiira) total to 834.

It is reported that there is a deficiency of clean and safe water in the micro micro-catchments. Due to the increasing urbanization in the micro catchments, there is an increasing water demand. In some instances, especially during the dry season water is drawn from unsafe sources.

Generally, most people access water through the piped water system (34.55%), followed by water harvesting (25.45%), Open wells (14.55%), streams /wetlands/lake (10.55%), borehole and shallow wells (8.36%), valleys dams (4% and protected springs (2.55%).

Piped water is relatively used (34.55%) within the micro catchment, and this is due to the existence of the gravity flow schemes and the growth of a number of towns and Rural growth Centres (RGC) which majorly depend on the gravity flow schemes. There are a number of small water supply systems that were constructed by the Ministry of Water and Environment, and are managed by NWSC and Umbrella entities. Gravity flow schemes do exist in the sub-counties of Nyakitunda, Kabuyanda and Mwizi.

Specifically, the study revealed that most of the people within the Kyabaganda micro catchment mainly access the water by use of water harvesting tanks (34.10%) during the wet season, piped water 31.80%), open well/unprotected springs (18.20%), streams/wetland/lake (13.60%), and a few protected springs (2.30%).

In Kyezo micro-catchment, the survey indicated that the major source of water for the for the majority of the community members is piped water (45.4%) followed by those harvesting water during the wet season (16%). Other sources of water include streams/wetlands/lakes (12.9%), shallow wells with hand pumps (9.8%), open wells/ponds (8.0%), valley dams (5.5%), and a few protected springs (1.8%). Some of the gravity flow schemes within the micro catchment include Rwemango GFS and Rwabyemera GFS (Kabuyanda Sub County), Rutemba and Kisyoro GFs (Kabuyanda Town Council).

Likewise, the survey within the Mishumba micro catchment indicated that the major source of water for the majority of the community members is water harvesting (water tank) (41.2%), open well/unprotected spring (27.9%), piped water (10.3%), BH/Shallow well with a hand pump (10.3%), stream/wetland/lake (2.9%) and valley dam/tank (2.9%).



Figure 7: Sources of Water in the micro catchments

Table 7: Shows the water source within the micro catchments

| Water Source Type | Kyabaganda | Kyezo | Mishumba | Total |
|--------------------------------|-------------|-------------|-------------|------------|
| | Percentage | | | |
| Open well/unprotected spring | 18.20% | 8.00% | 27.90% | 14.55% |
| Piped water (HC/YT/PSP) | 31.80% | 45.40% | 10.30% | 34.55% |
| Protected spring | 2.30% | 1.80% | 4.40% | 2.55% |
| Stream/wetland/lake | 13.60% | 12.90% | 2.90% | 10.55% |
| Water tanker | 34.10% | 16.60% | 41.20% | 25.45% |
| BH/Shallow well with hand pump | 0.00% | 9.80% | 10.30% | 8.36% |
| Valley dam/tank | 0.00% | 5.50% | 2.90% | 4% |
| Total | 100% | 100% | 100% | 100 |

Findings reveal that a great number of people collect water from unprotected sources that are likely to affect the health of the communities within the micro-catchments. Waterborne diseases like bilharzia, cholera, skin disease, etc., are likely to impact on the populations affecting their productivity. There is need for the central government and local governments in the respective micro-catchments to install water supply systems to the communities for safe and clean water. The Rural growth centres and towns should be prioritized. However, sensitization and creation awareness about the dangers of unsafe water sources should be undertaken so that communities can appreciate the efforts undertaken by the governments.

g) Access to improved sanitation.

The sanitation and hygiene situation within the micro catchment is generally acceptable as all the community members have access to a toilet facility within the community. The majority of the population within the catchment had the simple improved pit latrine (63.6%), simple unimproved pit latrine (26.2%), lined VIP latrine (4.0%), Compost/ecosan (2.5%), and those without toilets (2.5%).

Within the Kyabaganda micro-catchment majority of the community members possessed simple unimproved pit latrine (70.45%), an improved pit latrine (22.73%), flush toilets connected to a septic tank (4.55%) and a few possessed lined toilets (2.27%). However, it should be noted that although all the respondents had access to the toilet facility 36.36% were sharing the facilities. It was further revealed that about 61.36% of the toilet facilities had hand-washing facilities leaving

the 38.64% without the handwashing facility despite the ongoing campaigns about best sanitation and hygiene practices.

Within Kyezo-micro catchment, the study established that most of the community members possessed a simply improved toilet (87.1%), the composites/ecosan (4.3%, lined VIP Latrine (4.3%), flush toilet connected to the septic tank (0.6%) and 3.7 % did not possess a toilet facility. It should also be noted that about 41% of the households share the toilets, while 59% possess household toilets.

Within Mishumba micro catchment the study established that most of the community members possess simple un improved toilets (60%), simply improved pit latrine (34%), lined VIP Latrines (3%), flush toilets connected to the septic tank 1% (1) and while a few do not possess the toilet facilities (1%). The study also revealed that despite the fact there are shared toilet facilities, more than half of the reported facilities had hand-washing facilities (63.2%).

h) Prevalence of diseases

From the household survey, the most (34.7%) diseases reported by households in the last three months in Kyabaganda micro-catchment were flue and cough, and this was followed by typhoid and malaria. The situation was similar in both Kyezo and Mishumba in which cough and flu were among the commonest diseases in addition to malaria.

i) Solid waste management

The study revealed that a number of people within the micro catchments use compost pits (53.4%) to dispose of the solid waste within the catchments. Others burn the waste (22.1%), while others have garbage collectors (16.4%) for whom they pay money to dispose of the solid waste among others. The community members who use the garbage collectors are mainly found in urban areas.

Within the Kyabaganda micro-catchment, the study revealed that several community households dispose of their waste in composite pits (63.8%), burning (24.1%), sanitary landfills (8.6%), garbage collectors (1.7%) while others have decided on recycling of the garbage. During the field study, it was observed that most of the degradable waste is used in the banana plantation as manure especially, in rural areas.

Table 8: Showing the Methods of solid waste disposal

| Solid waste disposal method | Kyabaganda | Kyezo | Mishumba | Total |
|-----------------------------|------------|--------|----------|-------|
| | Percentage | | | |
| Compost pit | 63.80% | 59.50% | 41.40% | 53.4% |
| Garbage collector | 1.70% | 2.00% | 41.40% | 16.4% |
| Incineration/burning | 24.10% | 27.00% | 14.30% | 22.1% |
| Sanitary landfill | 8.60% | 8.00% | 1.40% | 5.6% |
| Recycling | 1.70% | 3.50% | 1.50% | 2.5% |
| Grand Total | 100% | 100% | 100% | 100% |

For the Kyezo micro catchment, the most common methods of domestic garbage disposal include; the use of a compost pit (59.50%), burning (27.00%), and sanitary landfill (8.00%) among others. In the trading centres and towns councils, garbage is collected by the Kabuyanda Town Council and dumped near the Town Council offices near the swamp. However, it was observed there was

indiscriminate disposal and the dumping of solid waste within the swamp is likely to affect the quality of water within the catchment.



Figure 8: Solid waste landfill (Garbage disposal) for Kabuyanda Town Council

j) Land Tenure Systems

In Uganda, there are mainly four types of land tenure systems, i.e., mailo, customary, freehold, and leasehold. The rules define how access is granted to rights of use, control and transfer land as well as associated responsibilities and obligations. As such a land tenure system governs who uses what land resources, for long and under what conditions. Under this micro-catchment, land tenure is mainly customary with approximately 76.2 per cent of the household not holding certificates for land ownership⁷. Under the customary system in this region, the land is owned by the ultimate owner and user of the land. However, under the Mishumba micro catchment, part of the micro catchment is owned by the government agency/Institution (NFA). However, there has been a memorandum of understanding with the communities/individuals to make use the forest reserve by planting trees. These efforts help in the conservation of the ecosystem and preserving the natural functions of the forest.

k) Cultural Aspects

The three micro-catchments of Kyabaganda, Kyezo and Mishumba situated in the districts of Isingiro, Rwampara and Ntungamo are mainly occupied by the ethnic group of both Banyankore and Bakiga, and migrants from Rwanda, with the main language of Runyankole and Rukiga. They have concentrated on crop farming and animal rearing. However, the key cultural practices and beliefs among the population in the micro-catchments have over the years lost their original importance due to the phenomenon of modernism and the associated tenets. They include beliefs like having large families, for a large labour reserve and the practice of polygamy to beget many children, embracing new cultures including western religions.

The cross-border activities also have had an influence on the revolving of culture among the people especially from the ethnic groups from Tanzania and Rwanda. The main livelihood activity is agriculture, which involves the cultivation of crops and the rearing of animals.

⁷ Source: 5-year District Local Government Development Plan II 2015/2016-2019/2020

In a nutshell, the population in the micro-catchments present an opportunity for feasible mobilization, engagement and consensus building towards micro-catchment planning protection and plan implementation. The lingering inequalities against certain population subgroups such as, women and child boys and girls can still be deliberately addressed during the course of the engagements over the mCMPs development and the subsequent implementation.

l) Energy Sources

The study revealed that, solar power is majorly used for lighting contributing to more than 53.5%. The use of kerosene is at 28%, Hydro Power Energy 11.6%, while a few use torches (2.5%) as a source of lighting. It was evident that most of the community members within all the micro-catchments installed solar for lighting purposes. This is attributed to the fact that solar is affordable given the different panels on the market compared to the grid connections and other sources. Solar is also safer to use, and readily available on the market compared to the high connection and tariffs charged by the hydro power service providers within the catchments.

The main energy sources used in the households within the micro-catchments for cooking are majorly firewood (82.91%), in all the catchments with a minority using electricity (0.73%) found in only Kyezo catchment using electricity for cooking. A small proportion of the population use charcoal (16.36%) and these are mainly registered in the urban centres/Rural Growth Centres (RGC).

Table 9: Table of sources of energy for cooking in the Micro catchments

| Source of Energy for Cooking | Kyabaganda | Kyezo | Mishumba | Total |
|------------------------------|------------|---------|----------|--------|
| | Percentage | | | |
| Charcoal | 20.50% | 11.00% | 26% | 16.36% |
| Firewood | 79.50% | 87.70% | 74% | 82.91% |
| Electricity | 0.00% | 1.20% | 0% | 0.73% |
| Grand Total | 100.00% | 100.00% | 100% | 100% |

The increasing demand for charcoal and fire wood has impacted on the continuous cutting and degradation of forests and the cutting of trees to meet this demand. The eucalyptus trees that are extensively grown within the micro catchments, especially along the slopes are used as the source of wood for cooking for the household and timber for domestic and commercial purposes. There is therefore need to encourage the communities to plant more trees especially on the slopes to match up with the demand, and to be innovative and introduce energy saving technologies (cooking) and use of biogas among others. This will reduce the burden of on the forest cover and preserve the eco-system.

m) Vulnerable Groups

The government of Uganda according to the 1995 under Article 32 provides for affirmative action in favour of marginalized groups on account of; gender, age, disability or any other reason created by history, tradition or custom for the purpose of redressing imbalances which exist against them and that parliament shall make relevant laws including laws of establishing the Equal Opportunities Commission for the purpose of giving effect to Article 32.

Consequently, development programs in Uganda have embedded interventions targeted to benefit all population sub-groups considered ‘vulnerable and marginalized’ guided by the existing policies, and laws for their inclusion as active actors in their own development.

In every society, there is a need to protect the rights of all the vulnerable groups. Among the vulnerable groups within the communities include women, children, people with Disabilities (PWDs), the poor, the elderly, refugees, widows/widowers, youth, ethnic minorities and the Vulnerable children including orphans, street children, child-headed families, the among other. There is an increased unemployment of the youth in the micro-catchment especially in the urban areas, where the youth are idle and unproductive. Child labour has been evident during the loading of matooke on trucks within the catchment, lumbering activities, fishing among others. The biggest challenge is increased unemployment of the youth especially in the township, where the youth are idle and unproductive.

The vulnerability elements from each category are attributable to factors including, physical disability, social cultural values and beliefs, historical context, loss of economic sources of livelihood due to unfortunate developments beyond their control. It is also worth noting that the magnitude of vulnerability is not uniform across the socio-economic sub-groups aforementioned. Overall, unemployment and under employment and the resultant lack of means to meet the basic human needs was found to be key in explaining the forms of vulnerability of the different socio-economic sub groups within the catchment.

Therefore, the identification of vulnerable and marginalized population sub groups is important in the planning and development of micro-catchment management plans and subsequent construction and use of the irrigation scheme. As much as possible the VMGs were consulted and have participated in the initial planning meetings. They will also be considered in subsequent formation of the micro-catchment management structures and implementation of social protection interventions for poor and vulnerable women and men and in developing strategies to eliminate child labour with emphasis on exploitation of the girl child.

In the implementation of the proposed interventions in Kabuyanda Micro Catchments, all the mentioned vulnerable groups will be involved, women, people living with disabilities and youths will be involved in every intervention implemented. Efforts of child abuse (child labour) and drug intake among the youths and children will be discouraged throughout the project life cycle. Alternative income generating activities proposed in the plans will cater for all these identified vulnerable groups.

n) Gender Aspects

The question of gender participation during the planning and implementation processes at household and local government levels is still an issue to resolve. This was evident from both the stakeholder engagements and the review of development plans of the administrative units within the micro-catchments. Gender mainstreaming has not improved in most of the local governments hosting the micro-catchments with regard to actual funding of the identified gender issues despite the fact that government policies about gender are in place. Additionally, there is lack of commitment to gender issues among the implementing stakeholders, both at district and lower local government levels.

Similarly, at the household level, unequal relations exist in regard to decision-making and access and control of resources to the disadvantage of women. These realities are contrary to the national legislation and policies on the treatment of vulnerable and marginalized population subgroups including women relative to men

Although there has been progressive urbanization within the micro catchment that affects gender aspects, the cultural grip is still felt regarding the traditional roles in terms of gender. Among the key aspects where the women's participation is still limited include; land ownership, leadership roles, and decision-making within the family/household. It is imperative to note that ownership of some assets is left to men, and these include land, animals, and subsistence food crops belonging to women. To a smaller extent woman may own land if it was given and/or inherited from their family or if they purchased it themselves. However, like the gender policy inclusiveness, the women need to be involved and consulted throughout the project life cycles if it is to be inclusive, sustainable and fully implemented within the community.

In terms of gender roles, women take up most of the workload compared to men. With the micro catchment, women are responsible for tilling the gardens, collecting firewood, fetching water, cooking food, keeping the home clean, looking after children. Men are responsible for tilling the gardens, collecting firewood, grazing animals, and earning income for the family. However, women are also major contributors to family income. The boy children are responsible for helping their fathers with grazing animals, fetching water and any other chores assigned by the parents. The girl children are responsible for helping their mothers with the household chores, fetching water and any other duties assigned by the parents.

However, the global changes that include technological advancement, dynamic socio-economic trends, education advancement and continuous advocacy are likely to have a positive impact on the gender aspects within the catchment.

1.1.4 Biological Environment

a) Flora

The micro-catchments' area is a combination of modified vegetation with farmlands (including tree farming), grasslands and pasturelands. Rwoho Central Forest Reserve (CFR) dominates the centre and lower part of the catchment, where a combination of forest, mix forest-shrub-grass, and savanna can be observed. Outside the CFR, the catchment is mainly characterised by cropland, largely banana (*Musa spp*) plantations, Maize (*Zea mays*), Beans (*Phaseolus vulgaris*), Yams (*Colocasia esculenta*), and Sugarcane (*Saccharum officinarum*) along marshes. Deforestation and conversion to farmland has left many hills bear with no vegetation cover encouraging soil erosion and landslides on the fragile slopes. The valleys comprise of degraded marshes dominated by *Cyperus papyrus*, *Typha domingensis*, *Cyperus articulatus*, *Cyperus difformis*, *Cyperus latifolius*, *Leersia hexandra*, and *Echinochloa pyramidalis*. Rwoho CFR occurred with non-indigenous species. Overall, the main vegetation type is anthropic landscapes. Ninety-one plant species were recorded in the project area and none of the species was of conservation concern according to IUCN Red list of 2017.

Table 10: Summary of vegetation cover along Kabuyanda catchment area

| Micro catchment | Site | Longitude | Latitude | Vegetation description |
|-----------------|------|-----------|----------|---|
| Kyezo | | | | This micro catchment comprises of the biggest chunk of land where the scheme will be, its mainly composed of settlements, urban centres and gardens. Several streams and marshes traverse this area however most have been encroached. The riverine vegetation along various streams was dominated by <i>Cyperus sp</i> , |

| Micro catchment | Site | Longitude | Latitude | Vegetation description |
|-----------------|-------------------------|------------|-----------|--|
| | | | | <i>Typha sp, Phragmites sp, Vossia cuspidata</i> and <i>Polygonum coccineum</i> in areas where the land use has not been altered. |
| | River Mishumba | 30.640086° | 0.944206° | The Major River running through the project area at some points is heavily encroached by farmers while in other sections it has good vegetation cover dominated by <i>Cyperus papyrus</i> |
| | Kijanebareba swamp | 30.623696° | 0.948051° | Heavily degraded, located in Kabuyanda trading center remnants of wetland vegetation still visible (<i>Typha capensis</i> and <i>Cyperus sp</i>) |
| | | 30.642248° | 0.958573° | Open water area formed up from recent flooding and has remained, now utilized for fishing by locals and plenty of wetland birds (Little egret, Hadada ibis, Sacred ibis) were encountered here |
| Mishumba | | | | This micro catchment is in the hills of Rwampara district and mostly dominated by Rwoho CFR. Outside the forest, the hills are covered with plantations of banana while valleys are traversed with streams. This micro-catchment also has the source of river Mishumba at (0.772786°, 30.584807°). |
| | Belt of Natural Forest | 30.569751° | 0.833436° | Belt of natural forest dominated by <i>Hallea stipulosa, Macaranga schweinfurthii, Prunus africana, Alangium chinense, Ehretia cymosa,</i> and <i>Alangium chinense</i> all trees. The belt is bordered by plantation forests of Pine and Eucalyptus. |
| | Dam and inundation area | 30.596649° | 0.904367° | The damming area is within Rwoho CFR in a pine plantation where the vegetation has been greatly modified over the years. The edges of the river are covered by the dominant <i>Sena debymobotria</i> and remnants of <i>Cyperus sp</i> |
| | Kirungu | 30.568454° | 0.864791° | This area presents the eastern most part of the catchment in Ntungamo district. The area is dominated by plantation forests of Pine and Eucalyptus with belts of degraded forest remnants |
| Kyabaganda | | | | This micro catchment is located in settlements and gardens along the hills, valleys have streams that heavily encroached with some sections having remnant wetland vegetation. |
| | Rusharira | 30.632709° | 0.925537° | Riverine vegetation along this river is degraded but there is some remnant Papyrus-Typha vegetation. Two Grey-crowned Crane encountered here. |
| | Musharira | 30.668428° | 0.906311° | Stream line vegetation along this stream is heavily degraded with brown water as a result of siltation |

| Micro catchment | Site | Longitude | Latitude | Vegetation description |
|-----------------|---------------|-----------|----------|---|
| | River Migyera | 30.651751 | 0.882892 | Riverine Migyera runs through this micro catchment collecting large volumes of water from the surrounding hills when it rains. The marshes along this river act as foraging and nesting sites for the threatened Grey Crowned Crane, three were recorded however locals reported over 50 can be present at one point. |

b) Fauna

i). Birds

Birds are good indicators of general biodiversity i.e., areas very rich in bird species have been found to also be rich in other biodiversity. Birds have been found useful as bio-indicators because they are:

- Wide spread, they occur in all habitats (forest, grassland, water, cultivation)
- Relatively large, conspicuous- easily surveyed with simple methods like observations, use of calls to record presence or absence
- Mostly active during the day (compared to many mammals and amphibians)
- Specialized in their habitats in some cases e.g., forest or water bird specialist. The disappearance of such specialist species in an ecosystem can be used to assess the health of that particular ecosystem or the extent of degradation.

A total of 71 species of birds were recorded from the general surveys areas which represented the different micro-catchments. Majority of the bird species were recorded in Kyezo micro-catchment (43) followed by Mishumba (32) and Least numbers were recorded in Kyabaganda (26). Most bird species recorded were those referred to as habitat generalists. However, some species were recorded in Kyezo (Wetland) and Mishumba (Forest and wetland) micro-catchments. The Most abundant bird species were, Ring-Necked Dove, Black headed weaver and Common bulbul, which were recorded in all surveyed areas.

Table 11: Species in various habitat categories and conservation status in Kabuyanda Catchment area

| Target species | | | No. Spp | |
|--------------------|-----------------------|------------------|---------|----|
| Ecological feature | Forest specialist | FF | 3 | |
| | Forest generalist | F | 6 | |
| | Forest visitors | F | 10 | |
| | Wetland specialists | W | 2 | |
| | Wetland visitor | W | 8 | |
| | Grassland specialists | G | 7 | |
| | Woodland | Af | 3 | |
| | Generalists | Gen | 29 | |
| | Aerial feeder | Ae | 3 | |
| Migrants | Palaearctic | P | 2 | |
| | Afrotropical | A | 0 | |
| Red-list Species | Globally | Critically | G-CR | 0 |
| | | Endangered | G-EN | 02 |
| | | Near- threatened | G-NT | 0 |

| Target species | | | | No. Spp |
|----------------------|------------|---------------------------|-------------------|---------|
| | Regionally | Vulnerable | G-VU | 0 |
| | | Endangered | R-EN | 0 |
| | | Vulnerable | R-Vu | 0 |
| | | Near- threatened | R-NT | 5 |
| | | Regional responsibility | RR | 0 |
| | | Regional restricted range | R-RR | 0 |
| | Uganda | Endangered | U-EN | 0 |
| | | Vulnerable | U-VU ^b | 1 |
| | | Near- threatened | U-NT | 0 |
| Non-Red-list Species | | Least- Concern | LC | 65 |

^aBennun *et al.* 1996

^bWCS 2016

The number of determined species (71) is higher than those recorded during the ESIA (53) studies, and this difference could be attributed to timing of the two surveys and the area covered during the assessment.

Species of conservation importance

According to IUCN (2021), most species recorded are considered as Least Concern in view of their wide distribution, stable populations and not facing any alarming threats. Only two species of international conservation concern were recorded (Grey Crowned Crane and Martial eagle) all listed as Near Threatened (NT). Five species of regional importance all listed as Regionally Near Threatened (R-NT) i.e., African marsh-harrier (*Circus ranivorus*), African reed warbler (*Acrocephalus baeticatus*), Brown-snaked eagle (*Circaetus cinereus*), Grey-crowned Crane (*Blearica regulorum*) and Black –headed Heron (*Ardea melanocephala*) Pomeroy and Asasira 2011.

ii). Mammals

Owing to habitat modification where most of natural vegetation has been cleared in the project area, the mammalian population is depauperate. As such mammals recorded primates in the forested areas of Rwoho, medium sized mammals and small mammals presented the most numbers and species. Overall, 12 mammalian species were recorded with the majority being recorded in Mishumba Micro-catchment area.

Table 12: Mammalian species recorded in Kabuyanda catchment area

| Scientific Name | English Name | IUCN Red List status | Kyezo | Mishumba | Kyabaganda |
|--------------------------------|-----------------------|----------------------|-------|----------|------------|
| <i>Aethomys hindei</i> | Hinde's Rock Rat | LC | * | * | * |
| <i>Lemniscomys striatus</i> | Striped Grass Mouse | LC | * | * | * |
| <i>Rattus Rattus</i> | House Rat | LC | * | * | * |
| <i>Ichneumia albicauda</i> | White Tailed Mongoose | LC | * | * | * |
| <i>Civettictis civetta</i> | African Civet | LC | * | * | * |
| <i>Cercopithecus mitis</i> | Blue Monkey | LC | | * | |
| <i>Cercopithecus Ascanius</i> | Red Tailed Monkey | LC | | * | |
| <i>Chlorocebus pygerythrus</i> | Vervet Monkey | LC | | * | |
| <i>Papio Anubis</i> | Olive Baboon | LC | | * | |

| Scientific Name | English Name | IUCN Red List status | Kyezo | Mishumba | Kyabaganda |
|-------------------------------|--------------|----------------------|-------|----------|------------|
| <i>Arvicanthis sp</i> | Rock rat | LC | * | * | * |
| <i>Mus sp</i> | Pygmy mouse | LC | | | * |
| <i>Crocidura olivieri</i> | Giant shrew | LC | | * | * |
| <i>Hippopotamus amphibius</i> | Hippopotamus | VU | | | |
| | | Totals | 0 | 3 | 6 |

Murids which represented the most species in this study contain over 1100 species, over a quarter of all mammal species in the world. They are mainly rats, mice, and gerbils, while most are usually adaptive to changes in their habitat oftentimes becoming a nuisance (pest) in crop fields.

iii). Herptiles

A total of eleven amphibians and six reptiles were recorded from six families respectively. Amphibians were very abundant in the project area especially along the marshy rivers in the valley. Most amphibian records were made in Kyezo and Mishumba catchment areas which could be attributed to the many mashes and rivers traversing these areas. More amphibians (2) were recorded in this assessment compared to the ESIA studies. The most abundant amphibians were *Hyperolius viridiflavus* and *Ptychadena Mascareniensis* and were recorded in all Micro-catchment areas.

Table 0: Amphibian and Reptile Species encountered in the project site

| Family Name | Scientific Name | Common Names | IUCN Red List Status | Kyezo | Mishumba | Kyabaganda |
|-------------------|-------------------------------------|----------------------------|----------------------|-------|----------|------------|
| Hyperoliidae | <i>Hyperolius viridiflavus</i> | Common Reed Frog | LC | * | * | * |
| Hyperoliidae | <i>Afrivalus quadrivittatus</i> | Striped Leaf-folding Frog | LC | * | * | * |
| Hyperoliidae | <i>Hyperolius kivuensis</i> | Kivu Reed Frog | LC | * | * | * |
| Hyperoliidae | <i>Hyperolius cinnamomeoventris</i> | Cinnamon-bellied Reed Frog | LC | * | * | * |
| Bufo | <i>Sclerophrys gutturalis</i> | African common toad | LC | | * | |
| Phrynobatrachidae | <i>Phrynobatrachus natalensis</i> | Natal Puddle Frog | LC | * | | * |
| Phrynobatrachidae | <i>Phrynobatrachus mababiensis</i> | Dwarf Puddle Frog | LC | * | * | |
| Pyxicephalidae | <i>Amietia angolensis</i> | Angola River Frog | LC | | * | |
| Ptychadanidae | <i>Ptychadena mascareniensis</i> | Mascarene Rocket Frog | LC | * | * | * |
| Ptychadanidae | <i>Ptychadena anchietae</i> | Ridged frog | LC | | * | |
| Pipidae | <i>Xenopus victorianus</i> | Lake Victoria Clawed Frog | LC | * | * | |
| Scincidae | <i>Trachylepis striata</i> | Striped Skink | LC | * | * | * |
| Elapidae | <i>Naja melanoleuca</i> | Forest Cobra | LC | * | * | |

| Family Name | Scientific Name | Common Names | IUCN Red List Status | Kyezo | Mishumba | Kyabaganda |
|-------------|-----------------------------|------------------------|----------------------|-------|----------|------------|
| Viperidae | <i>Bitis arietans</i> | Puff Adder | LC | * | * | * |
| Colubridae | <i>Lamprophis olivaceus</i> | Olive House Snake | LC | | * | |
| Pythonidae | <i>Python sebae</i> | Central African python | LC | | * | |
| Varanidae | <i>Varanus niloticus</i> | Nile Monitor | LC | * | * | * |

Reptiles occur in a variety of habitats and as such were recorded in all micro catchments with the least number of species recorded in Kyabaganda Micro-catchment. The most abundant reptile is *Trachylepis striata*, the species is from Order Sauria. These are mostly lizards with well-developed limbs making them more agile hence covering and colonizing more ground compared to their limbless cousins in the Order Serpentes (Cogger, 2000). Species from Order Sauria are also very adaptive with some preferring being commensal (*Agama Saurian* and *Trachylepis striata*) while others occupy various habitat strata (Gerlach, 2005).

iv). *Fishes*

Just like in the ESIA studies, four fish species were recorded in the project area (*Clarias casonii*, *Barbus apleurogramma*, *Barbus apleurogramma*, and *Enteromius jacksoni*). Four fish species were caught during experimental fishing and one was reported during interviews. Fish monitoring, as recommended by NAFRRI, will be included in the contractor's ESMP to monitor and mitigate impacts on the fisheries. None of the recorded fish species is of special conservation interest, measured against the IUCN conservation list.

Table 14: Fauna and Flora species of conservation concern in Kabuyanda catchment area

| Taxa | Species | IUCN status/National status | Social importance | Location |
|-----------|---------------------------------|-----------------------------|-----------------------------------|--|
| Flora | <i>Cordia millenii</i> | Nationally threatened | Medicinal / wood for making boats | Mishumba Micro catchment Rwoho CFR |
| | <i>Prunus Africana</i> | Globally (VU) | Medicinal | Mishumba Micro catchment Rwoho CFR |
| | <i>Erythrina abyssinica</i> | LC | Medicinal | Mishumba, Kyezo and Kyabaganda micro catchments |
| | <i>Clerodendrum johnstonii</i> | LC | Used for making local straws | Mishumba around the damming site. But wide spread in the catchment |
| Amphibian | NA | NA | NA | NA |
| Reptile | <i>Varanus niloticus</i> | CITES appendix ii | NA | Mishumba, Kyezo and Ruhimbu Micro catchments |
| Mammal | <i>Hippopotamus amphibius</i> | Globally (VU) | NA | Ruhimbu |
| Fish | <i>Oreochromis leucostictus</i> | NA | Food | Kyezo |
| | <i>Barbus apleurogramma</i> | NA | Food | Kyezo |

| Taxa | Species | IUCN status/National status | Social importance | Location |
|------|-------------------------|-----------------------------|-------------------|----------|
| | <i>Clarias casonii</i> | NA | Food | Kyezo |
| | <i>Barbus jacksonii</i> | NA | Food | Kyezo |

1.1.5 Protected Areas

Rwoho CFR

The only protected area in the catchment area is Rwoho CFR, a 90 km² plantation development forest, mostly degraded with bare hilltops with sparse woody plant cover, and partially replanted with non-indigenous species (*Pinus caribaea*, *Pinus ocarpa* and *Eucalyptus sp.*). As Rwoho CFR contains a large proportion of plant species of non-native origin, and as human activity has substantially modified the area's primary ecological functions and species composition, Rwoho CFR is classified as a modified habitat. Considering that Rwoho CFR has no high biodiversity value, it is classified as a non-critical habitat.

Bugamba CFR

This forest even though outside the Catchment management area, it's approximately 7km north of the catchment area of river Mishumba, and both Bugamba and Rwoho are in the same management plan according to NFA. The area is occupied by two vegetation communities (Langdale-Brown et al., 1964) classified as types D3 (*Albizia-Markhamia* forest, 45 km²: 50%) and the other classified as type Q4 (*Themeda-Chloris* grass savanna, 45 km²: 50%) which occurs on hill tops, ridges and hillsides.

Ibanda Game reserve

River Mishumba is the major river of the catchment area and eventually pours into river Kagera. River Kagera runs along an international border between Uganda and Tanzania where Ibanda Game reserve is on the adjacent side of the river in Tanzania. The park is composed of natural plains of open woodlands and supports a variety of large mammals including Hippopotamus and assorted angulates.

1.2 MICRO CATCHMENT MANAGEMENT RELATED ISSUES

A threat is an activity, process, built structure or natural feature that presents a potential danger to water quality, water quantity or reliability of water in the environment. A hotspot is an area that is suffering from serious environmental degradation and is in need of immediate improvement. A number of issues/threats were identified in the micro-catchments of Kabuyanda including their drivers. The table below presents the Priority Catchment management issues and their drivers in Mishumba, Kyezo and Kyabaganda micro-catchments.

Table 9: Priority Catchment management issues and their drivers in Mishumba, Kyezo and Kyabaganda micro-catchments

| S/N | Threats/Issues | Drivers | Mishumba | Kyabaganda | Kyezo |
|-----|--|--|----------|------------|-------|
| 1. | Wetland encroachment and depletion leading to floods, drought, | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Seeking for a source of income | | X | X |

| S/N | Threats/Issues | Drivers | Mishumba | Kyabaganda | Kyezo |
|-----|---|---|----------|------------|-------|
| | climate change, etc. | <ul style="list-style-type: none"> • Agricultural activities (crop cultivation, livestock grazing/watering). • Artisanal mining (sand, clay, gold) • Brick-making. | | | |
| 2. | Riverbank encroachment leading to floods, siltation, sedimentation, water pollution, etc. | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Agricultural activities (crop cultivation, livestock grazing/watering) • Artisanal mining (sand, clay, gold) • Brick-making • Washing bays | X | X | X |
| 3. | Deforestation leading to floods, drought, climate change, soil erosion, biodiversity loss, etc. | <ul style="list-style-type: none"> • Cutting trees for generating income • Seeking wood/Timber for construction purposes • NFA allocating forest land to private individuals • Lack of awareness • Weak enforcement of applicable laws and regulations. • Lumbering, charcoal burning, firewood • Land clearing for agriculture • Sand mining | X | X | X |
| 4. | Alcohol distillation along streams leading to surface water pollution. | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Lack of alternative livelihoods | X | X | X |
| 5. | Bush burning | <ul style="list-style-type: none"> • Lack of awareness • Lack of enforcement of applicable laws and regulations • Land clearing for cultivation. | X | X | X |
| 6. | Weak institutional capacity | <ul style="list-style-type: none"> • Lack of adequate personnel • Lack of adequate financing • Lack of enforcement and surveillance tools and equipment (motorcycles, drones, monitoring stations, etc.) | X | X | X |
| 7. | Soil degradation leading to low crop yields | <ul style="list-style-type: none"> • Lack of appropriate farming skills and knowledge • Limited access to quality agricultural inputs e.g., seeds, agrochemicals, breeds, etc. • Limited access to mechanization (e.g., uses of tractors, harvesters, weeders, etc.) • Lack of access to financial services/credit | X | X | X |

Figure below indicates the combined hotspot areas encountered in the areas of Kyabaganda, Mishumba and Kyezo micro-catchments.

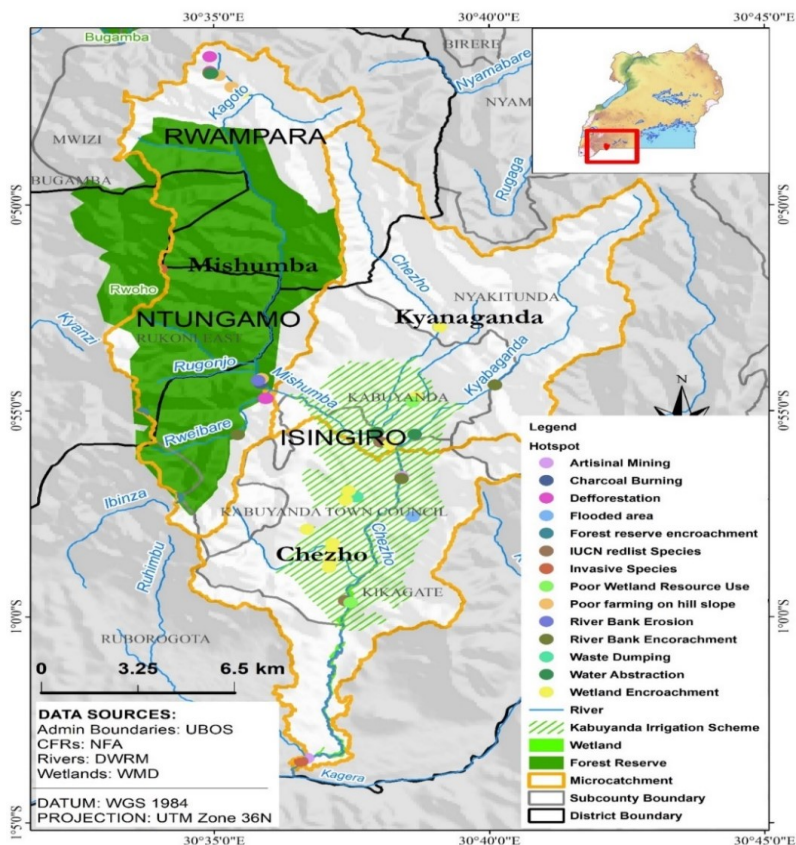


Figure 8: Hotspots in the Kabuyanda Sub-catchment

a) Encroachment and degradation of wetlands

District technical team and Communities confirmed that there was significant conversion of wetland areas for farming and tree plantations. The extent of wetland that has been transformed for agricultural purposes was 70% therefore 0.14836km² will require intervention. The depletion of wetlands also destroys the key habitat for the endangered Grey crowned Crane which further leads to reduction in their population.



Sugarcane growing on the edge of wetland section in migyera village (Kyezo river)



Eucalyptus plantation in wetland within Kigababa village (Kyabaganda river)

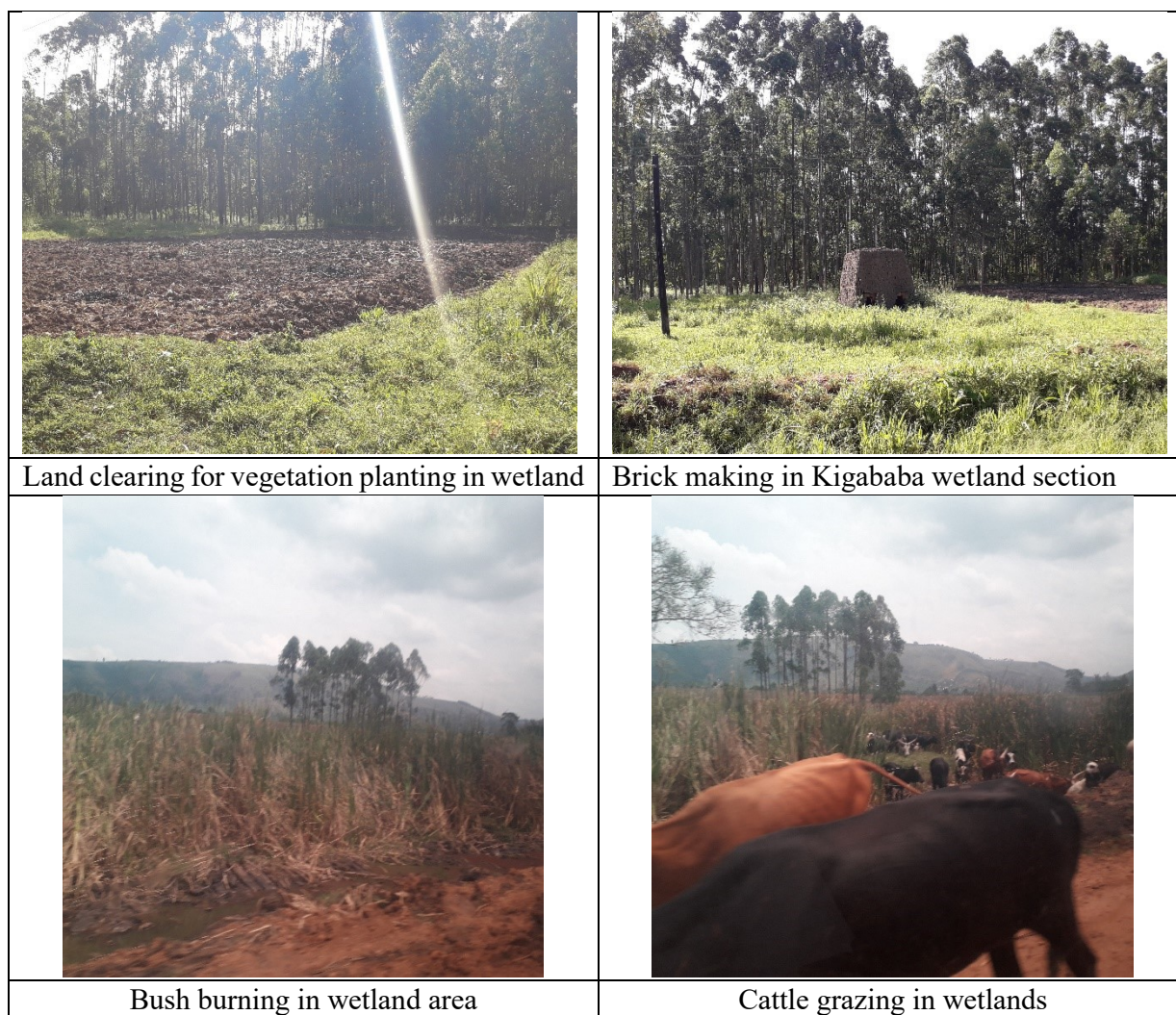


Plate 03: Wetland encroachment within the micro catchments

b) River Bank Encroachment

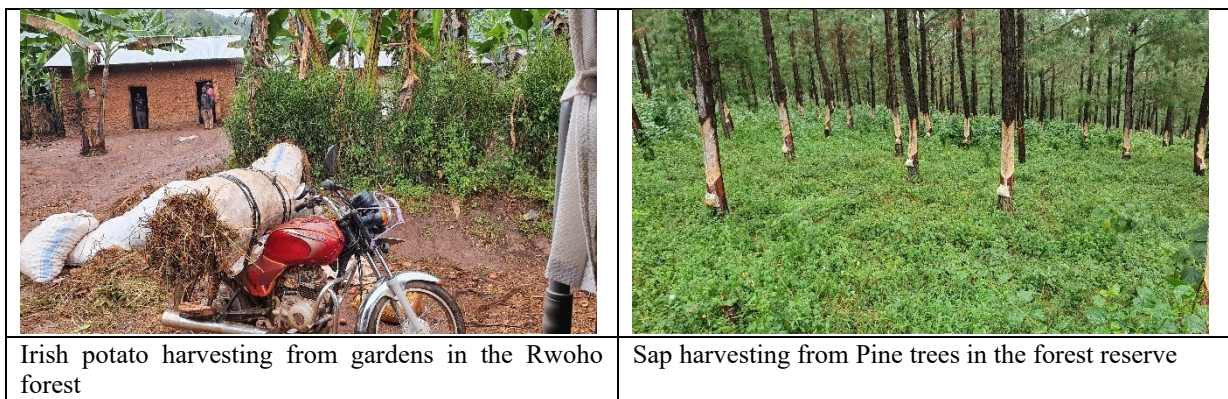
Dredging within river channel; - Stakeholders indicated that Dredging within river channels is common practice at the end of the dry season to allow rivers carry more water downstream to reduce flooding. This release varying degrees of sediment into the water column, affecting fisheries, water abstractions downstream. There was also an issue of expansion of the Kabuyanda Town council, that was encroaching on the Ndijanebareba wetland system coupled with other pressures from garbage dumping, vehicle washing, community bathing and animal watering. All wetland areas observed in the micro-catchments were encroached with hardly any land left for ecosystem functioning.



Plate 04: Dredging and farming in the buffer zone

c) Deforestation

There was rampant deforestation and encroachment observed in the micro-catchments, especially around Rwoho Central Forest reserve to clear land for agriculture, charcoal burning and timber harvesting. This was further observed from Land use classes compared from available datasets of 2015 and 2022. There was observed encroachment on Rwoho Forest reserve with an approximated loss of 17% of the original indigenous species.



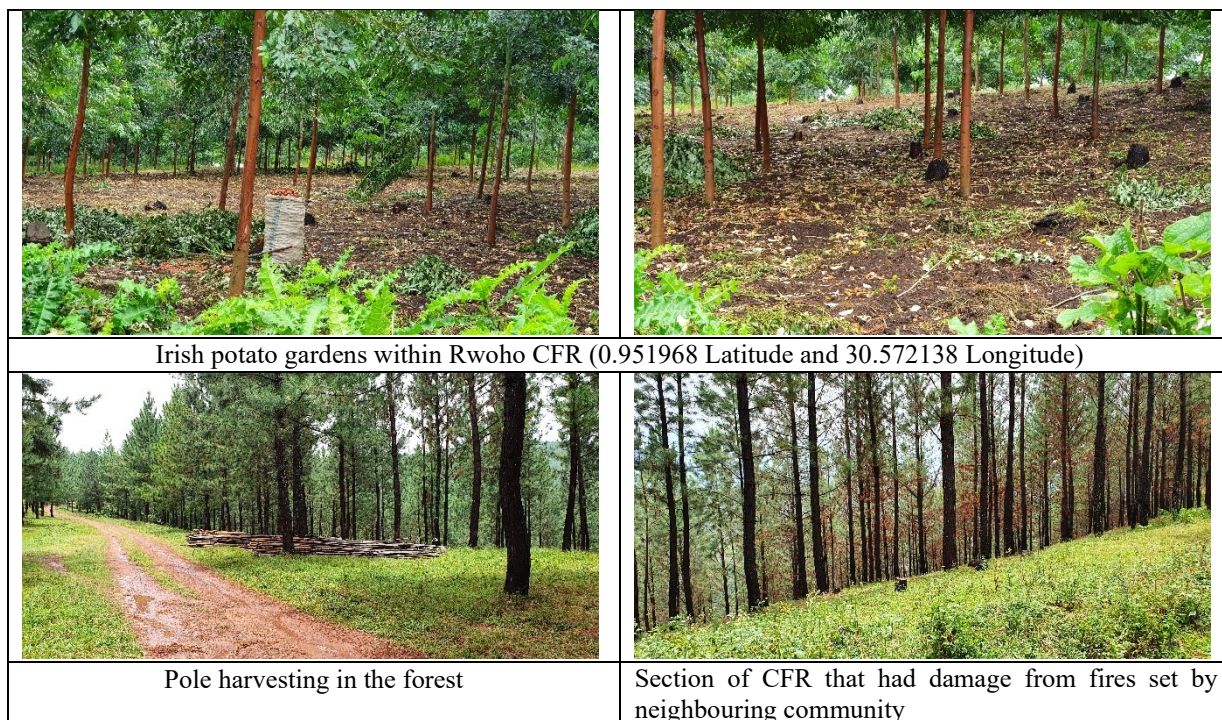


Plate 05: Landuse activities within the Rwoho CFR

d) Poor farming methods leading to loss of soil and fertility

All areas visited within the micro-catchments had river valley sections bordered by poorly managed hills that were bare in some instances and where there was vegetation, no soil conservation measures in place. Communities of Kabugu, Kagara, Kanywamaizi, Nyakarambi, and Bugongi, informed the SEA Team that due to increases in population, there was a shortage of land that led to over cultivation of the available areas for food and sustenance of household income. There are no soil conservation measures in Kyabaganda hills, therefore poor land use practice over the area.



Plate 6: Poor Farming practice on the hills in mCatchments

e) Artisanal Mining

There was un-licensed mining for tin (Ndani cell – Kabuyanda Town council), sand (Bagarika Village, Kikagate subcounty), establishment of murram and aggregate (Ndani cell – Kabuyanda Town council) and clay borrow pits (Kigababa Cell II- Kabuyanda TC).



Plate 07: Brick making activity in Ndani Cell, Kabuyanda TC

f) Flooding

There is significant level of degradation of the catchment resulting in flash floods in some areas, loss of lives, livestock and fisheries. Floods are one of the major threats that were mentioned by the stakeholders during the district and community meetings, especially for Kabubu wetland system and along River Mishumba. In addition to the extreme climatic conditions, floods have been exacerbated by the encroachment of wetlands and buffer zones for rivers. It was also reported that floods swept some sections of farms that were too close to the rivers during the May 2020 rain season.



*Plate 08: Typical flood condition in the irrigation command area
Source: Biodiversity and Ecological flow Management Report August 2021*

g) Alcohol Distillation along streams/wetlands

Local communities within the micro-catchments do alcohol distillation and dispose of the residues of sugarcane and banana (raw materials) back into the river. The hot water obtained from cooling process during distillation is also returned back to the river which might affect water quality and aquatic environment.

| | |
|--|-------------------------------------|
| | |
| <p>Sack for soaking sorghum in river for two days and then Used to make local brew</p> | <p>Remnants of local distillery</p> |



Plate 9: Artisanal distilleries in the micro-catchments

h) Bush Burning

Bush burning was reported by the consulted stakeholders, both Local Government officials as well as community members. This practice is majorly practiced by livestock farmers for rejuvenation of pasture during the dry season or in the process of land preparation for crop cultivation.

i) Weak Institutional Capacity

Local Government Authorities from District to the Parish level where the three micro-catchments under the study are located, lack adequate financing to implement their mandate such as surveillance and enforcement of established programmes, laws and regulations.

2 OBJECTIVES

The overall objective of the assignment is to support communities in the micro-Catchments around Kabuyanda irrigation scheme to implement catchment-based and community driven actions to improve soil and water conservation, riverbank & wetland restoration, reforestation and community livelihood improvements.

The specific objectives of the assignment are to:

- a) identify, mobilise, engage and build capacity of stakeholders and communities in undertaking catchment-based and community driven catchment management measures.
- b) support communities to restore degraded hotspot wetlands and/or riverbanks in Kyabaganda, Kyezo and Mishumba micro catchments
- c) support communities to implement soil and water conservation measures on priority hotspots in the micro catchments.
- d) Support communities to restore deforested and degraded land through community tree growing on individual farmers land, public land and riverbanks
- e) support communities to establish and promote alternative income generating activities for improved livelihoods.

3 SCOPE OF SERVICES

This assignment seeks to support communities in the micro-Catchments around Kabuyanda irrigation scheme to implement catchment-based and community driven actions to implement catchment-based and community driven actions aimed at improving soil and water conservation, wetland and riverbank restoration, reforestation and community livelihood improvements. Thus, community mobilisation and sensitisations will be key to the implementation of the assignment. The micro-Catchment management committee shall play a major role in this assignment and the Service Provider is requested to engage and involve them accordingly.

As part of general items and cross-cutting aspects, the Service Provider shall identify key stakeholders including community and Local Government representatives and develop appropriate mobilisation and sensitisation tools and approaches. The Service Provider shall carry out community capacity building sessions during implementation of the assignment. Meetings, radio talk shows, and guided field tours to sensitise communities on the importance of ecosystems protections and management will be organised. Interim stakeholder identification, engagement and capacity building reports will be produced at key events but stakeholder engagement and training will be a continuous process. The final report will be produced at the end of the assignment. Specifically, the service provider shall;

- Organize four 5-day exchange visits and study tours to other catchments
- Organise monthly 1-hour local radio talk shows on the ongoing activities in the micro-catchment.
- Produce monthly progress and other associated output Reports
- Organise monthly joint onsite inspections and monitoring by client and other technical staff.
- Establish and maintain 6 site sign-boards

The following tasks will be undertaken.

Task 1: Support communities to restore degraded stretches of riverbanks through use of catchment management measures.

In Kyabaganda Micro-catchment

Under this task, 91km (45.5km on each side) of the degraded stretches of the major rivers in Kyabaganda Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)
- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 72,072 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 91km buffer zone (45.5km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted

in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).

- Procure 13,650 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 45.5km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the VWMZ staff after the project.

In Kyezo Micro-catchment

Under this task, 52.54km (26.27km on each side) of the degraded stretches of the major rivers in Kyezo Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)
- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 41,612 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 52.54km buffer zone (26.27km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).
- Procure 7,881 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 26.27km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the VWMZ staff after the project

In Mishumba Micro-catchment

Under this task, 80.68km (40.34km on each side) of the degraded stretches of the major rivers in Mishumba Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)
- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 63,900 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 80.68km buffer zone (40.34km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).
- Procure 12,102 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 40.345km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the VWMZ staff after the project.

Task 2: Support restoration of degraded Wetlands to perform their ecological and socio-economic functions.

In Kyabaganda Micro-Catchment

Under this task, 21.2ha of the degraded wetlands in Kyabaganda Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organize members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days)
- Provide tools to communities to implement wetland protection and restoration action plans

- Procure 1,696 Sisal stems as local planting materials to demarcate the 21.2ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m)
- Demarcate off 21.2ha buffer zone of the wetland using tree lines (80 Sisal stems per ha at a spacing of 5m by 5m)
- Engage and strengthen 50 people of the sub catchment structure to develop/enforce Wetlands management plans and enforce by laws for the demarcated wetlands in the sub catchment
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

In Kyezo Micro-Catchment

Under this task, 166.29ha of the degraded wetlands in Kyezo Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organize members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days)
- Provide tools to communities to implement wetland protection and restoration action plans
- Procure 13,303 Sisal stems as local planting materials to demarcate the 21.2ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m)
- Demarcate off 166.29ha buffer zone of the wetland using tree lines (80 Sisal stems per ha at a spacing of 5m by 5m)
- Engage and strengthen 50 people of the sub catchment structure to develop/enforce Wetlands management plans and enforce by laws for the demarcated wetlands in the sub catchment
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

Task 3: Support communities in catchment rehabilitation through soil and water conservation measures, contour bunds on priority hotspots.

In Kyabaganda Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 55ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, stormwater diversion drains, percolation ditches; grow trees, shrubs

grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)

- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 45Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

In Kyezo Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 55ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, stormwater diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)
- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 45Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

In Mishumba Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 55ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, stormwater diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)
- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 45Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

Task 4: Support communities to restore deforested and degraded communal and individual land through tree growing.

In Kyabaganda Micro-Catchment

Restoring of 140 Ha of degraded communal and individual land in Kyabaganda through tree growing (afforestation, reforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration
- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 56,000 tree seedlings of average height of 30cm to communities
- Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

In Kyezo Micro-Catchment

Restoring of 140Ha of degraded communal and individual land in Kyezo through tree growing (afforestation, reforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration

- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 56,000 tree seedlings of average height of 30cm to communities
- Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

In Mishumba Micro-Catchment

Restoring of 140Ha of degraded communal and individual land in Mishumba through tree growing (afforestation, reforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration
- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 56,000 tree seedlings of average height of 30cm to communities
- Plant 56,000 tree seedlings of average height of 30cm to communities and restore 140 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

Task 5: Support communities to establish and promote alternative income generating activities for improved livelihoods;

In Kyabaganda Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g. improved cookstoves), fruit growing, and fish farming as alternative income generating activities shall be promoted and supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored. Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

1. Support Bee-keeping as alternative income generating activity
 - Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
 - Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
 - Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 4 groups

- 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups
 - 1 Air tight Bucket (20ltrs for each of 4 groups
 - 1 Kg of bee wax for each of 4 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups
 - 1 bee knife and 1 Bee brush for each of 4 groups
 - 1No. Honey extractor to each of the 4 groups
 - Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per farmer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.).
 - Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).
2. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity
- Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
 - Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)
 - Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.
 - Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.
3. Support fruit growing as alternative income generating activity
- Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.
4. Promote fish farming as alternative income generating activity.
- Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting)
 - Conduct One training (2-day) for each of the 2 farmer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management).

- Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) and facilitate each of the 2 groups (labour) to construct 2 (20m x 15m) dug out shallow ponds, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m²) of the pond base
- Prepare the 2 ponds to receive fish:
 - fill the pond with water;
 - fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level);
 - if you use compost, add about 10 kg per 100 m²
 - if you use animal manure, add per 100 m² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure
 - if you use plant wastes only, keep the fertilizing crib full
 - pack this material tightly in each crib
- Stock the 2 ponds each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes
- Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fishponds by the farmers) for 10 days per month for 6 Months.

In Kyezo Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g. improved cookstoves), fruit growing, and fish farming as alternative income generating activities shall be promoted and supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored. Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

5. Support Bee-keeping as alternative income generating activity

- Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
- Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
- Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 4 groups
 - 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups
 - 1 Air tight Bucket (20lts for each of 4 groups)
 - 1 Kg of bee wax for each of 4 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups
 - 1 bee knife and 1 Bee brush for each of 4 groups
 - 1No. Honey extractor to each of the 4 groups

- Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per farmer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.).
 - Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).
6. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity
- Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
 - Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)
 - Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.
 - Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.
7. Support fruit growing as alternative income generating activity
- Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.
8. Promote fish farming as alternative income generating activity.
- Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting)
 - Conduct One training (2-day) for each of the 2 farmer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management).
 - Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) and facilitate each of the 2 groups (labour) to construct 2 (20m x 15m) dug out shallow ponds, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m²) of the pond base
 - Prepare the 2 ponds to receive fish:
 - fill the pond with water;

- fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level);
 - if you use compost, add about 10 kg per 100 m²
 - if you use animal manure, add per 100 m² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure
 - if you use plant wastes only, keep the fertilizing crib full
 - pack this material tightly in each crib
- Stock the 2 ponds each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes
- Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fishponds by the farmers) for 10 days per month for 6 Months.

In Mishumba Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g., improved cookstoves), and fruit growing, as alternative income generating activities shall be promoted and supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored including communities affected by Rwoho restoration activities that have been implemented under NFA (e.g., Kirungu ward in Rwoho TC-Ntungamo district, Kigaga Parish in Mwizi S/C- Rwampara district). Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

1. Support Bee-keeping as alternative income generating activity
 - Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
 - Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
 - Provide key beekeeping equipment to 4 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 4 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 4 groups
 - 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 4 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 4 groups
 - 1 Air tight Bucket (20ltrs for each of 4 groups
 - 1 Kg of bee wax for each of 4 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 4 groups
 - 1 bee knife and 1 Bee brush for each of 4 groups
 - 1No. Honey extractor to each of the 4 groups
 - Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per famer for establishing the apiary, using local live fencing trees of an average height

- of 1.5-2m high (e.g. *Ficus natalensis* – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. *Calliandra*, *Eucalyptus*, bottle brush trees, neem tree, etc.).
- Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).
2. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity
- Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
 - Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)
 - Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.
 - Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.
3. Support fruit growing as alternative income generating activity
- Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.

4 ORGANISATION OF THE ASSIGNMENT

4.1 LIAISON WITH MWE/DWRM

The assignment will be coordinated by the focal point Manager for subcomponent 1.3 of the ICRP. However, coordination of day-to-day implementation of the activities will be done by the Victoria Water Management Zones (VWMZ) working closely with the micro-Catchment Management Committee, and respective regional/district technical officers and backed up by MWE staff at the national level. The WMZs and the Catchment Management Committees will be strengthened to perform their roles of stakeholder collaboration and coordination, and guidance to the implementation of the priority interventions. This will be done through providing a platform to have regular meetings, trainings and providing them with the necessary equipment to facilitate their coordination role. The respective government agencies at both national and local levels will, however, take the lead in the implementation of interventions falling within their mandates.

All the contractual issues related to the assignment will be formally handled by the Component focal point but will be discussed and resolved where possible at the local level with the relevant technical staff at the WMZ and local governments as appropriate. The service provider will

produce and issue relevant reports to the Client on key deliverables of the assignment in addition to monthly reports. The monthly reports will contain details of the work done and will also identify actual and anticipated difficulties and delays in the work, the causes, and remedial measures proposed. The firm shall submit 4 hard copies of each progress and technical report to the Client.

4.2 STAFFING/PERSONNEL

Important to note is that the implementation of this assignment shall be community-driven and so the community members on ground are envisaged to execute the activities therein. Therefore, the Service Provider shall employ and pay the community members for the work done as per agreed rates based on government Labour rates and precedence set by other similar projects.

Nevertheless, the Service Provider is required to elaborate in his technical offer on the envisaged logistical set-up and deployment of appropriate expert skills for the execution of the assignment. The Service Provider should carefully review the scope of services and propose a team of well-organised competent staff, adequately equipped with the necessary skills/facilities to guide the communities in execution of the assignment, bearing in mind that a substantial amount of work in this assignment is field based.

The Service Provider 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.

4.2.2 Staffing Requirements

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

- Water/Environmental Management expert (team leader)
- Forestry/Tree growing Specialist
- Soil and Water Conservation Specialist
- Community Development Specialist

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

4.2.3 Staffing Qualifications

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

- *1 No. Water/Environmental Management expert (team Leader):* A master's degree in Water/Environmental Engineering / Management / Science or related field with 8 years of general experience, 5 years of Specific experience in undertaking water related environmental assessments and in environment management planning. Experience in use of Geographical Information System tools will be an advantage.
- *1 No. Forestry/Tree growing Experts:* The Forestry/Tree growing Expert should have a Bachelor's degree in Forestry with experience of 10 years in tree growing. A minimum of 3 years' experience in training farmers in tree planting and agroforestry at community level will be needed.
- *1 No. Soil and Water Conservation Experts:* The Soil and Water Conservation Expert should have a Bachelor's degree in natural resources/ water resources management,

Agriculture, or related field with experience of not less than 10 years in natural resources/water resources management. 3 years specific experience in construction of soil and water conservation structures, as well as community involvement and training farmers in catchment restoration measures will be needed.

- *1 No. Community Development Experts:* The Community Development Specialist shall hold at a minimum a bachelor’s degree in social sciences, social works & administration, development studies or community psychology. A Master’s Degree in those fields will be an added advantage. The proposed expert should have at least 5years of working experience, of which 3 years should have been in natural resources management. The expert should have experience in undertaking impact, social and gender analysis. S/He should be knowledgeable in preparing appropriate awareness programs. The Expert shall be responsible for mobilising and sensitisation of communities during the project implementation process.

The experts are expected to have local experience and knowledge of conditions in the sub catchment. Ability to speak the local language by Community Development Expert will be required. The Service Provider may seek any additional expertise required for the assignment that may not be available among the team members.

4.2.4 Familiarisation with the Assignment

To familiarise with the services to be provided under this assignment, the prospective bidder is advised to visit the project areas. However, it should be understood that any cost incurred in this regard shall not be a reimbursable expense to the Service Provider.

The prospective bidder shall review the project documents, including but not limited to the environmental and social briefs prepared for the area, as well as the Environmental and Social Management Framework (ESMF).

5 REPORTS AND SCHEDULE OF DELIVERIES

The assignment will be undertaken over a maximum period of 24 calendar months.

It is however, the responsibility of the Service Provider to establish a detailed work program within the above time frame. 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 10.

Table 10: Reporting/Delivery Schedule

| Deliverable No. | Timing after Commencement | Content | No. of Copies of Reports |
|-----------------|---------------------------|--|--------------------------|
| D.1 | Month 2 | Draft Inception Report containing the Service Provider’s mobilisation, updated work plan and schedule for the provision of the services. Should include any major inconsistency in the TOR, and other challenges that have become apparent during this period, methodology and time schedule for the services and the proposed content and structure of the various reports. | 4 |
| | Month 2.5 | Final Inception report | |
| D.2 | Month 7 | a. 100Ha of degraded land restored through soil and water conservation measures. b. 210Ha of deforested and degraded communal and individual land restored through tree growing | 4 |

| Deliverable No. | Timing after Commencement | Content | No. of Copies of Reports |
|-----------------|---------------------------|---|--------------------------|
| | | c. 40Km of degraded riverbanks restored | |
| D.3 | Month 10 | a. 120Km of degraded riverbanks restored b. 65Ha of degraded land restored through soil and water conservation measures c. 210Ha of deforested and degraded communal and individual land restored through tree growing | 4 |
| D.4 | Month 14 | a. 64.22Km of degraded riverbanks restored b. 80Ha of degraded wetlands restored c. 400 households trained and supported in establishing alternative income generating (livelihood) activities | 4 |
| D.5 | Month 18 | a. 107.49Ha of degraded wetlands restored b. 360 households trained and supported in establishing alternative income generating (livelihood) activities | 4 |
| D.6 | Month 21 | 160 households trained and supported in establishing alternative income generating (livelihood) activities | 4 |
| D.7 | Monthly | A report comprising of a narrative or graphic presentation, showing details of the Service Provider's progress, changes in the assignment schedule, impediments and proposed remedies, in addition to documentation on lessons learned. | 4 |
| D.8 | Every 3 months | Stakeholder identification, mobilisation, engagement and capacity building Reports | 4 |

The Service Provider 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.

The Service Provider shall work closely with the Client with the aim of capacity building and knowledge transfer.

The time provided is only indicative of the expected time used for each item but the order of implementation will be explained by the service provider with justification in the technical proposal.

All reports will be submitted to:

**The Director,
Directorate of Water Resources Management
P.O. Box 20026,
Kampala, Uganda**

For the attention of: Dr. Callist Tindimugaya
Commissioner, Water Resources Planning and Regulation Department
Telephone: +256772521413
Email: callist.tindimugaya@mwe.go.ug, callist_tindimugaya@yahoo.co.uk

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

6 DATA, SERVICES AND FACILITIES 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 the custody of the client 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) Micro-Catchment Management Plan for micro catchments around Kabuyanda Irrigation Scheme.
- (ii) Environmental and Social Project Brief
- (iii) Report on Priority Catchment Management Measures



The Republic of Uganda

MINISTRY OF WATER AND ENVIRONMENT
IRRIGATION FOR CLIMATE RESILIENCE PROJECT
(ICRP)

Terms of Reference

For

**Non- Consultancy Services for supporting implementation of
catchment management measures in LOT 2: Kazinga-Kiruruma,
Lower Mitano, Rushaya Micro-Catchments**

October, 2023

1 INTRODUCTION

The Government of Uganda with funding from the World Bank is supporting implementation of the Irrigation for Climate Resilience Project (ICRP). The development objective of the Project is to provide farmers in the project areas with access to irrigation and other agricultural services, and to establish management arrangements for irrigation service delivery. The project will among others activities develop irrigation in Matanda/Enengo (Kanungu and Rukungiri districts) through establishing the Matanda/Enengo irrigation scheme. In Matanda/Enengo Irrigation scheme a sustainable farmer-based management system shall be established to manage, operate and maintain the scheme infrastructure once constructed.

In a bid to ensure sustainability of the water resource, feeding into the Matanda/Enengo irrigation scheme, and also to address catchment degradation issues, promote conservation and enhance sustainable use of natural resources of the micro-Catchments for the benefit of the communities around the irrigation scheme, micro-catchment plan for micro catchments around the Matanda/Enengo Irrigation Scheme has been prepared for implementation. The Plan entails among others identified priority measures that try to address environmental threats at micro-Catchment scale and opportunities for development. Within the Plans, there are interventions that address the overall water/natural resources issues within the micro-Catchments It is envisaged that the Plans when implemented shall enhance the protection, management and development of the water and related resources for socio-economic development of communities within the micro-catchments.

The Matanda/Enengo Irrigation scheme is located in three micro-catchments namely; Kazinga-Kiruruma, Lower Mitano and Rushaya in Kanungu, Rukungiri and Mitooma Districts respectively. The Project shall provide support to implementation of priority catchment management and restoration activities in Kazinga-Kiruruma, Lower Mitano and Rushaya micro-catchment found in Albert Water management Zone (AWMZ). The priority catchment management and restoration activities have been identified in the Plan and include investments in soil and water conservation, riverbank and wetland protection; tree growing; and livelihood improvement for affected communities.

In this regard, the Government of Uganda, with funding from the World Bank under the Irrigation for Climate Resilience Project (ICRP). intends to support the implementation of the priority catchment management and restoration activities in Kazinga-Kiruruma, Lower Mitano and Rushaya micro-Catchment as identified in the developed micro-Catchment Management Plan around Matanda/Enengo Irrigation Scheme.

1.1 MICRO-CATCHMENT'S DESCRIPTION

1.1.1 Location

The proposed interventions around Matanda/Enengo irrigation schemes will be implemented in the three micro-catchments of Kazinga-Kiruruma 390.65 km² (43.18%), Mitano-Lower 388.02 km² (42.94%), and Rushaya-Lower 123.33 km² (13.65%). The total study area surrounding the irrigation scheme is about 903.59 km² of which 58% (about 526.72 km²) is in Kanungu District and the remaining 42% (about 376.87 km²) lies in Rukungiri District. The Mitano catchment is situated in the Albert Water Management Zone (AWMZ).

Table 1: District Area in each Micro-catchment

| Micro catchment | Unit | Kanungu | Rukungiri | Mitooma | Total |
|------------------|-------------------------|---------|-----------|---------|---------------|
| Kazinga-Kiruruma | Area (Km ²) | 381.46 | 9.19 | 0 | 390.65 |

| | | | | | |
|---------------|-------------------------|--------|--------|------|---------------|
| | % Area | 97.6% | 2.4% | 0.0% | 100% |
| Mitano Lower | Area (Km ²) | 133.46 | 254.56 | 0 | 388.02 |
| | % Area | 34.4% | 65.6% | 0.0% | 100% |
| Rushaya Lower | Area (Km ²) | 0 | 119.37 | 3.96 | 123.33 |
| | % Area | 0.0% | 96.8% | 3.2% | 100% |

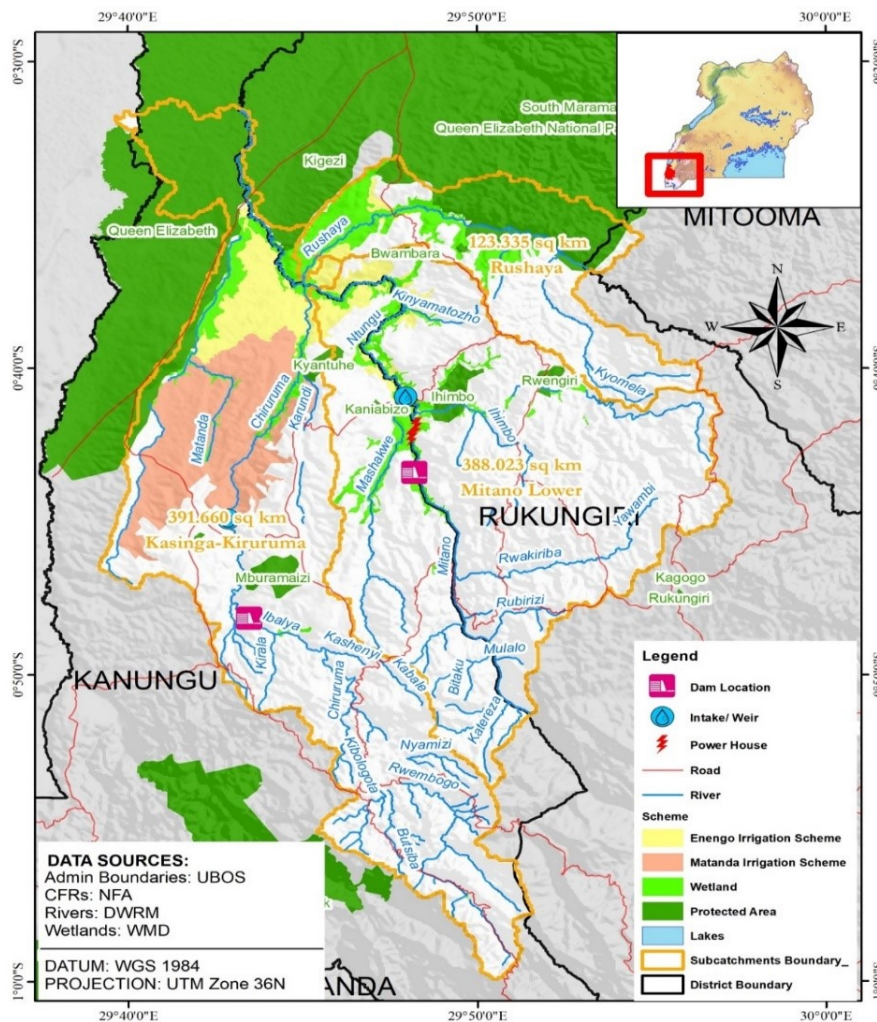


Figure 1: Location of the micro-catchments

1.1.2 Physical Environment

a) Climate

The rainfall pattern in the study area is bi-modal, with two rainy seasons in the months of March to May and a short rainy season in September to November. Low rains are experienced in the months of June to August and December to February. The mean annual rainfall ranges from 900mm to 1,600mm. Both minimum and maximum temperature show relatively stable trends throughout the years. The mean monthly minimum temperature ranges from 14.6 °C in December to 16.7 °C in August, while maximum temperature varies from 26.7 °C in November and May to 30.0 °C in February. The mean annual minimum and maximum temperature is 15.6 °C and 30.0 °C, respectively.

b) Topography

The minimum and maximum elevations across the three micro-catchments is 574 masl and 5,239 masl respectively and both the minimum and maximum elevations are situated at the outlet and upstream parts for Kazinga-Kiruruma micro-catchment. The topography of the micro-catchments has a combination of highland areas, plateau and rift valley areas. The Southern and Eastern parts of the three micro-catchments (Kazinga-Kiruruma, Rushaya and Mitano Lower) have higher elevations compared to the Northern and Western parts. This implies that the flow direction for the micro-catchments is from South and East towards North and West.

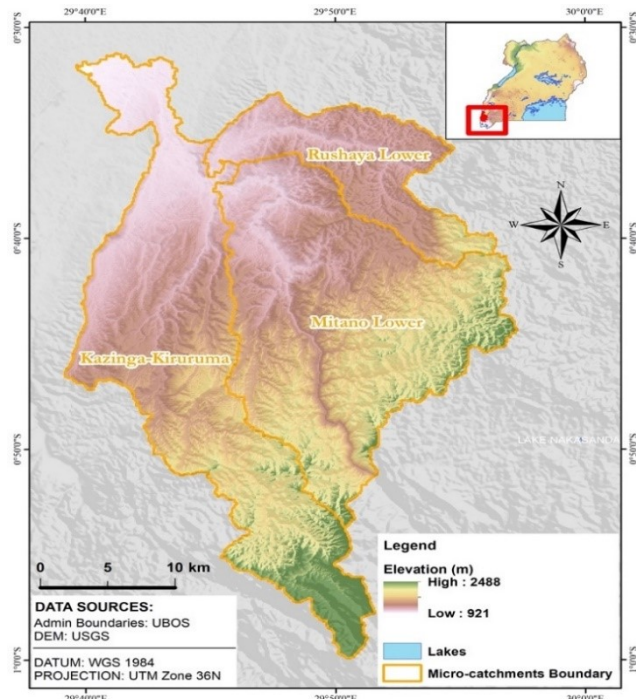


Figure 2: Topographic Map for the Micro catchments

c) Soils

Kazinga-Kiruruma micro-catchment comprises of (4) soil types and these include Lixic Ferralsols (47.7%), Acric Ferralsols4 (6.5%), Dystric Regosols (4.9%) and a fractional portion of Histosols (0.9%). Mitano Lower has two (2) soil types of which Acric Ferralsols cover the biggest (88.0%) part while the rest of the micro catchment is covered by Lixic Ferralsols (12.0%). Rushaya micro catchment also has two (2) soil types that comprise Lixic Ferralsols (67.4%) and Acric Ferralsols (32.6%).

Table 2: Percentage of Soil Classes for each Micro catchment

| Soil Type | Kazinga-Kiruruma | Mitano Lower | Rushaya-Lower |
|------------------|------------------|---------------|---------------|
| ACRIC FERRALSOLS | 46.5% | 88.0% | 32.6% |
| DYSTRIC REGOSOLS | 4.9% | 0.0% | 0.0% |
| HISTOSOLS | 0.9% | 0.0% | 0.0% |
| LIXIC FERRALSOLS | 47.7% | 12.0% | 67.4% |
| Total | 100.0% | 100.0% | 100.0% |

d) Geology

The geology of a catchment can influence drainage of a catchment, availability of groundwater and its ease of abstraction; help in the understanding of complex hydrologic systems. Kazinga-Kiruruma micro-catchment comprises of nine (9) geological classes, the most dominant being Rift Alluvium which covers 61.8% of the micro catchment followed by Mudstone, shale, slate, phyllite (27.7%) while the other classes combined comprise 10.52%. Similarly, Mitano Lower micro catchment has nine (9) geological classes of which Variable granitic gneiss (2147±16 Ma) is the most predominant covering 51.9% of the micro catchment followed by Rift Alluvium that comprises 31.2% while the other classes combined comprise 16.8%. Rushaya micro-catchment is covered by only two (2) geological classes of which Rift Alluvium is the

most dominant and covers 88.0% of the micro catchment while Variable granitic gneiss (2147±16 Ma) covers 12.0% of the micro catchment.

e) Rivers, Lakes and Wetlands

The micro catchments are endowed with water resources, comprising of rivers and wetlands. Wetlands are predominantly located in the northern part of the micro-catchment and the majority of the streams are located in the southern part of the micro-catchments. Kazinga-Kiruruma, Mitano Lower and Rushaya micro catchments are drained by a total of 202.9Km, 170.3Km and 49.3Km of river network respectively. The longest rivers in each of the 3 micro catchments are River Kiruruma (36.1Km), River Mitano (26.4Km) and River Rushaya (22.9Km) respectively. With respect to the wetland systems, Kazinga-Kiruma, Mitano Lower and Rushaya micro catchments have 20.3km², 24.0Km² and 26.9Km² of combined permanent and seasonal wetlands respectively.

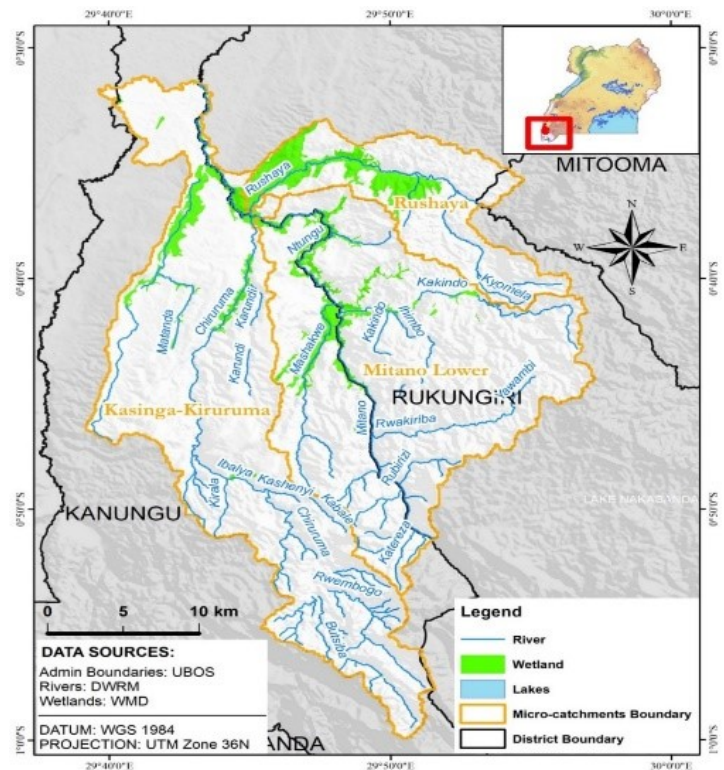


Figure 3: Drainage of the Micro catchments

1.1.3 Socio-Economic Environment

a) Administrative Structures

Administratively, Kazinga-Kiruruma and Mitano Lower micro catchments are partially situated in Kanungu and Rukungiri districts while Rushaya micro catchment is partially situated in Mitooma and Rukungiri districts. The lower-level administrative units i.e., sub counties, parishes and villages under each part of the district within the micro catchments (Table 3).

Table 3: Shows number of Administrative units in the micro catchments

| Micro-Catchment | District | Sub county | Parish | Village |
|------------------|-----------|------------|--------|---------|
| Kazinga-Kiruruma | Kanungu | 11 | 103 | 401 |
| | Rukungiri | 2 | 9 | 22 |
| Mitano Lower | Kanungu | 6 | 42 | 156 |
| | Rukungiri | 8 | 39 | 274 |
| Rushaya lower | Mitooma | 1 | 3 | 7 |
| | Rukungiri | 3 | 13 | 82 |

b) Population

The current populations for the micro-catchments were estimated by scaling-down UBOS's projected current (2022) district populations using the ratio of the district area within each micro-catchment to the total district area. Kazinga-Kiruruma has a current estimated population of 96,608; Mitano Lower 135,180 and Rushaya 19,479.

c) Household Characteristics

The household characteristics for the three (3) micro-catchments as obtained from the analysis of household survey data are summarized in Table 4 below. The average household sizes for Kazinga-Kiruruma, Mitano Lower and Rushaya micro catchments are 5.1, 5.7 and 5.7 persons. Findings further indicate there is presence of female headed households, the elderly (≥ 65 yrs), children below the age of 14 years and persons with disabilities across the 3 micro-catchments.

The housing conditions across the micro catchment are good as the majority of households i.e., 94.4%, 100% and 94.8% in Kazinga-kiruruma, Mitano Lower and Rushaya respectively are roofed with iron sheets. The results further show that the majority of households within the micro-catchment own a radio or mobile phone. However, fewer households lack any of the commonest modes of transport such as bicycles, motorcycles or vehicles.

The average monthly household expenditure used as surrogate for income was UGX 475,520, UGX 226,602 and UGX 165,345 for Kazinga-kiruruma, Mitano Lower and Rushaya respectively. However, most households in the micro catchments spent UGX 300,000, UGX 100,000 and UGX 100,000 respectively.

Table 4: Household Characteristics for the Micro catchments

| # | Characteristics | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|---|--|-----------------------|--------------|---------|
| 1 | Average household | 5.1 | 5.7 | 5.7 |
| 2 | Female Headed Households | 18.4% | 25.2% | 19.0% |
| 3 | Highest level of education of household head | Completed Primary | 26% | 50% |
| | | Not completed Primary | 12% | 28% |
| | | No formal education | 22% | 6% |
| 4 | Households having members above the age of 65yrs | 27.2% | 25.2% | 27.6% |
| 5 | Households with children below the age of 14yrs | 86.4% | 18.4% | 19.0% |
| 6 | Households having persons with disabilities | 16.8% | 25.2% | 27.6% |
| 7 | Roofing material of house | Clay tiles | 3.2% | 0.0% |
| | | Iron sheets | 94.4% | 100.0% |
| | | Thatch | 2.4% | 0.0% |
| 8 | Household assets | Own a Radio | 83.2% | 75.7% |
| | | Own a TV | 31.2% | 22.3% |
| | | Own a mobile phone | 85.6% | 91.3% |
| | | No mode of transport | 44.8% | 75.7% |
| 9 | Household Expenditure | Mode (UGX) | 300,000 | 100,000 |
| | | Average (UGX) | 475,520 | 226,602 |
| | | Median (UGX) | 200,000 | 200,000 |

d) Transport Infrastructure

The movement of persons and goods within and across the micro-catchments is facilitated by the existence of a mostly gravel road network involving urban and community access roads. In addition, there is the upgrade of Rukungiri-Kihihi-Ishasha/ Kanungu (78km) from gravel to tarmac. The roads are fairly motorable due to the routine maintenance works carried out by the district technical works department. However, they are slippery during rainy season. (Plate 1)



Plate 1: Slippery Road in the Study Area

e) Economic Activities

During the community engagement meetings, it was revealed that crop farming is the predominant economic activity undertaken by the households. According to the household survey results, crop farming accounts for 79.2%, 85.4% and 98.3% of the economic activities in Kazinga-Kiruruma, Mitano Lower and Rushaya respectively. Other livelihood sources such as retailing, stone mining, poultry farming, lumbering among others combined account for 20.8%, 14.6% and 1.7% respectively.

Table 5: Main Livelihood Source in the Micro-catchments

| Livelihood Source | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|----------------------|------------------|--------------|-------------|
| | Percentage | | |
| Animal farming | 1.6% | 0.0% | 0.0% |
| Crop farming | 79.2% | 85.4% | 98.3% |
| Lumbering | 1.6% | 1.9% | 0.0% |
| Monthly salary/wages | 5.6% | 1.9% | 0.0% |
| Other | 0.8% | 3.9% | 0.0% |
| Poultry farming | 4.0% | 0.0% | 0.0% |
| Retail shop | 6.4% | 6.9% | 1.7% |
| Stone mining | 0.8% | 0.0% | 0.0% |
| Total | 100% | 100% | 100% |

The major three (3) crops grown in Kazinga-Kiruruma micro-catchment are Beans (27.0%), followed by Cassava (20.2%) and Maize (18.8%). In Mitano Lower and Rushaya micro catchments, Matooke, Beans and Cassava are the 3 major crops grown respectively. The other crops include Millet, Sorghum, Groundnuts among others. Matooke growing is more in Mitano Lower and Rushaya micro catchments compared to Kiruruma micro-catchment largely due to favourable soils and the associated low costs of production in the former two (2) micro catchments. The results of the household survey indicate there are a number of challenges faced by crop farmers in the micro catchments and these include: low crop yields, the most predominant at 54.4%, 40.1% and 38.5% in Kazinga-Kiruruma, Mitano Lower and Rushaya respectively. Other reported challenges were limited access to markets, poor quality produce and post-harvest losses.

f) Access to safe water supply

Furthermore, the household survey results revealed that the majority, 48.8% of households in Kazinga-Kiruruma use piped water points as their primary source of water supply while the majority i.e., 60.2% and 55.2% in Mitano Lower and Rushaya respectively rely on open water

sources i.e., open wells, unprotected springs, streams, wetlands, etc. This is a service gap that needs to be bridged in an effort to meet the national and global targets for access to safe water sources. The predominant point water source type in each micro catchment is protected spring as shown Shashi in figure 4

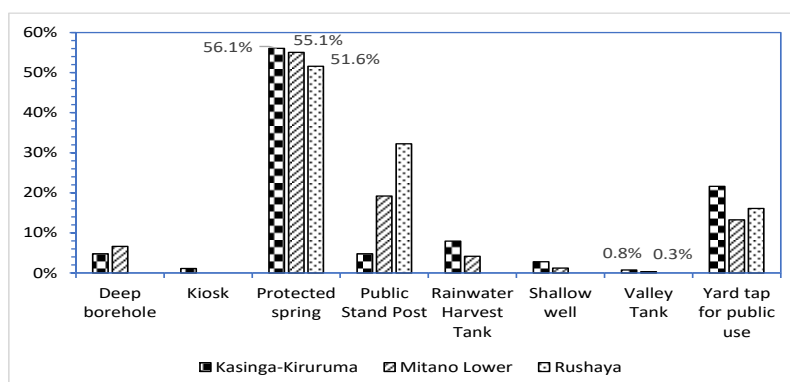


Figure 4: Existing Point Water Sources in the Micro catchments

Table 6: Primary Sources of Water Supply in the Micro catchments

| Source Type | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|------------------------------|------------------|--------------|-------------|
| | Percentage | | |
| Open well/unprotected spring | 24% | 53.4% | 43.1% |
| Piped water (HC/YT/PSP) | 48.8% | 15.5% | 8.6% |
| Protected spring | 12% | 22.4% | 34.5% |
| Stream/wetland/lake | 8% | 6.8% | 12.1% |
| Water tanker | 7.2% | 1.9% | 1.7% |
| Total | 100% | 100% | 100% |

Examples of some of the open water sources are presented below.



Plate 2: An Open Water Source in Kanyabwanga Parish, Koburunga Village



Plate 3: Open Water Source at Bugarama Village in Bugangari Parish

Water supply reliability is also a key factor in ensuring that SDG 6- that strives to ensure availability and sustainable management of water and sanitation for all is achieved. To this end, water supply reliability of the water source for the households was assessed.

However, 28.8%, 14.6% and 20.7% of the interviewed households in Kazinga-Kiruruma, Mitano Lower and Rushaya respectively reported that water was only available at certain times of the day. Furthermore, 15.5% and 13.8% of the households in Mitano Lower and Rushaya respectively experienced frequent breakdowns to their water sources.

Table 7: Water Source Reliability in the Micro catchments

| Reliability of water sources | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|--|------------------|--------------|---------|
| | Percentage | | |
| Frequently breaks down | 0% | 15.53% | 13.79% |
| Only available at certain times of day | 28.8% | 14.56% | 20.69% |
| Water is always available | 71.2% | 69.9% | 65.52% |
| Total | 100% | 100% | 100% |

From the household survey data, 73.1% of the households in Kazinga-Kiruruma micro catchment perceived the quality of their water sources as good; while only 28.3% and 22.9% of the households in Mitano Lower and Rushaya respectively perceived the quality of their water sources as good. Bad taste, bad odour and colour were mentioned as the reasons for perceived poor quality.

Table 8: Quality of Water Sources in the Micro catchments

| Quality of water source | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|-------------------------|------------------|--------------|---------|
| | Percentage | | |
| Good | 73.1% | 28.3% | 22.9% |
| Bad Taste | 4.5% | 0.0% | 1.0% |
| Bad Odour | 0.7% | 18.9% | 12.5% |
| Coloured | 3.0% | 25.2% | 31.3% |
| Contaminated | 18.7% | 27.7% | 32.3% |
| Total | 100% | 100% | 100% |

g) Access to improved sanitation

Survey results indicated that 1.6% of the respondents in Kazinga-Kiruruma had no access to a toilet facility. The most frequently used type of sanitation facility was a simple pit latrine, of which most were unimproved. In addition, 15.4%, 25.2%, 27.6% of the households in Kazinga-Kiruruma, Mitano Lower and Rushaya reported to be sharing their sanitation facilities with other households. Furthermore, presence of hand washing facilities was very low in Mitano Lower at 18.4% and Rushaya at 5.2% compared to Kazinga-Kiruruma that registered 56.1%.

Table 9: Type of Sanitation Facility in each Micro catchment

| Toilet type | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|---------------------------------------|------------------|--------------|---------|
| | Percentage | | |
| Flush toilet connected to septic tank | 6.4% | 0% | 0% |
| Lined VIP latrine | 5.6% | 0% | 0% |
| No toilet | 1.6% | 0% | 0% |
| Simple improved pit latrine | 30.4% | 17.5% | 5.2% |
| Simple unimproved pit latrine | 56% | 82.5% | 94.8% |
| Total | 100% | 100% | 100% |

h) Prevalence of diseases

Majority of respondents in Kazinga-Kiruruma, Mitano Lower and Rushaya reported that over the last three months, at least a member of their household suffered from malaria (30.9%),

Flu/Cough (32.2%) and Flu (40.0%) respectively. Other reported illnesses were diarrhoea and typhoid.

Table 10: Type of illnesses suffered in the last three months

| Disease | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|--------------|------------------|---------------|---------------|
| | Percentage | | |
| Cough | 29.2% | 32.2% | 0.0% |
| Diarrhea | 3.1% | 3.5% | 9.0% |
| Flu | 29.5% | 32.2% | 40.0% |
| Malaria | 30.9% | 23.7% | 36.5% |
| Typhoid | 7.3% | 8.6% | 14.5% |
| Total | 100.0% | 100.0% | 100.0% |

i) Solid waste management

Solid-waste management entails the collection, treating, and disposing of solid material that is discarded because it has served its purpose or is no longer useful. When solid waste is poorly managed, it can result in water contamination of the surface and ground water sources. From the household survey data, 63.2% of the households in Kazinga-Kiruruma, 99% in Mitano Lower and 96.6% in Rushaya use compost pits to manage their solid waste. Other reported forms of waste management were burning/incineration, sanitary landfill, etc. A significant proportion of households in Kazinga-Kiruruma i.e., 15.2% use garbage collectors to manage their waste due to the presence of urban centres in that micro catchment. Overall, the solid waste streams observed especially in the urban and rural growth centres included organic waste, wood products, paper, plastics and rubber, glass, metal among others.

j) Land Tenure Systems

From the foregoing and based on the review of documents obtained from the administrative units of the micro-catchments, as well stakeholder engagements, the dominant land tenure system is native freehold. Leasehold was also mentioned but is less pronounced and considered a preserve of the rich individual persons or institutions. Land titling is still limited in the areas assessed.

The sticking out issue raised in regard to land was that due to high population growth rate, occasioned by low utilization of family planning services, the land acreage available to households was low. The household survey results for the Kazinga Kiruruma micro-catchment alone indicate the average land size owned by households was 2.7 acres only.

k) Cultural Aspects

The key cultural practices and beliefs among the population in the micro-catchments have over the years lost their bearing due to the phenomenon of modernism and the associated tenets. They include beliefs like having large families for a large labour reserve and the practice of polygamy to beget many children.

On a positive note, there is intelligible communication among the three major ethnic groups of; Bakiga, Bahororo and Bafumbira Banyarwanda and they live harmoniously. The language used is largely the same and they subscribe to the major religious denominations of Catholicism, Anglican and Islam.

l) Tourism

Parts of Kazinga-Kiruruma and Rushaya micro catchment are located in Queen Elizabeth National Park which is a tourist zone. Areas like Kihiihi are very popular tourist destinations for mountain climbers. In the neighbourhood of the micro catchments lies the World Heritage site of Bwindi Park known for its Mountain Gorillas. The western arm of the great East African Rift Valley also crosses through the micro catchments. Tourism therefore offers a huge potential for people's livelihoods and is one of the vehicles to transform the socio-economic fortunes of the communities in the micro catchments.

m) Energy Sources

The socio-baseline survey findings revealed that most households rely on wood fuel (fire wood and charcoal) as a source of energy for cooking with very marginal percentages of 0.8% and 1.6% relying on electricity and Liquefied Petroleum Gas (LPG) in Kazinga-Karuruma micro catchment. The technology used in cooking was mostly a three (3)-stone fire stove.

Table 11: Main Source of Energy for Cooking in the Micro catchment

| Energy Source for Cooking | Kazinga-Kiruruma | Mitano Lower | Rushaya |
|---------------------------|------------------|--------------|-------------|
| | Percentage | | |
| Charcoal | 15.2% | 1.0% | 0% |
| Electricity | 0.8% | 0% | 0% |
| Firewood | 82.4% | 16.5% | 51.7% |
| Firewood/charcoal | 0% | 82.5% | 48.3% |
| Gas | 1.6% | 0% | 0% |
| Total | 100% | 100% | 100% |

Solar was the main source of energy used for lighting with 35.2%, 77.7% and 60.3% prevalence in Kazinga-Kiruruma, Mitano Lower and Rushaya micro catchments respectively. Other forms of energy used for lighting were HEP, candles, kerosene and batteries (torches).

n) Vulnerable Groups

In the three micro-catchments, the vulnerable and marginalized groups (VMGs) identified during the assessment arguably include all age categories of men, women, boys and girl children. The Batwa ethnic group is a minority tribe also cited as yet another vulnerable group identified to be resident in the micro-catchment of Kazinga-Kiruruma, occupying particularly the cells/villages of Kengoma and Kanyanshande of Kanyantorogo sub county in Kanungu district.

o) Gender Aspects

The question of gender participation during the planning and implementation processes at household and local government levels is still an issue to resolve. This was evident from both the stakeholder engagements and the review of development plans of the administrative units within the micro-catchments. Gender mainstreaming has not improved in most of the local governments hosting the micro-catchments with regard to actual funding of the identified gender issues despite the fact that government policies about gender are in place. Additionally, there is lack of commitment to gender issues among the implementing stakeholders, both at district and lower local government levels.

Similarly, at the household level, unequal relations exist in regard to decision-making and access and control of resources to the disadvantage of women. These realities are contrary to the national legislation and policies on the treatment of vulnerable and marginalized population subgroups including women relative to men.

Although there has been progressive urbanization within the micro catchment that affects gender aspects, the cultural grip is still felt regarding the traditional roles in terms of gender. Among the key aspects where the women's participation is still limited include; land ownership, leadership roles, and decision-making within the family/household. It is imperative to note that ownership of some assets is left to men, and these include land, animals, and subsistence food crops belonging to women. To a smaller extent woman may own land if it was given and/or inherited from their family or if they purchased it themselves. However, like the gender policy inclusiveness, the women need to be involved and consulted throughout the project life cycles if it is to be inclusive, sustainable and fully implemented within the community.

In terms of gender roles, women take up most of the workload compared to men. With the micro catchment, women are responsible for tilling the gardens, collecting firewood, fetching water, cooking food, keeping the home clean, looking after children. Men are responsible for tilling the gardens, collecting firewood, grazing animals, and earning income for the family. However, women are also major contributors to family income. The boy children are responsible for helping their fathers with grazing animals, fetching water and any other chores assigned by the parents. The girl children are responsible for helping their mothers with the household chores, fetching water and any other duties assigned by the parents.

However, the global changes that include technological advancement, dynamic socio-economic trends, education advancement and continuous advocacy are likely to have a positive impact on the gender aspects within the catchment.

1.1.4 Biological Environment

a) Flora

Majority of flora and habitats in the three micro-catchments (Kazinga Kiruruma, Mitano Lower and Rushaaya) have been altered from natural existing vegetation cover into cultivated vegetation cover. Over 90% within Kazinga-Kiruruma mCM, 85% of Rushaaya mCM and about 80% of Lower Mitano mCM, at the time of the surveys were found to be fields of cultivated land. The swamps and river banks in the three micro-catchments are covered by cultivated fields as opposed to natural wetland vegetation or flora that existed in sporadic pockets.

In addition to eucalyptus sp and *pine carribea* plantations, other cultivated crops observed were maize (*zea mays*), bananas/matooke (*musa spp*), tea, coffee (*coffea spp*), yams (*colocasia esculenta*), beans (*phaseolus vulgaris*) and sugarcane (*saccharum officinarum*). This land cover type has been converted from typical wetland vegetation whose remnants were dominated by *Typha domingensis*, *Cyperus papyrus*, *Cyperus articulatus*, *Cyperus denudatus*, *Cyperus difformis*, *Echinochloa pyramidalis*, *Cyperus latifolius*, *Lepistemone owariensis*, *Persicaria spp*, *Leersia hexandra*, *Neobotonia macrocalyx*, *Macaranga schweinfurthii*, *Phoenix reclinata*,

Pseudospondius macrocarpa, *Alchornea cordifolia*, *Tabernaemontana divaricata* and the herb *Cyclosorus interruptus*.

Loss of such natural cover from the swamps, along streams and minor rivers within the micro-catchments and subsequent replacement of their vegetation cover with cultivated crops, reduces the capacity of the ecosystem to provide sustainable water resources.



Plate 4: Eucalyptus-Saccharum Along River Kiruruma at 35M 808337.65 9906725.96



Plate 5: Cultivation of Tea on Hill Slopes and Within Wetland at 35M 809496.29 9899964.78



Plate 6: Land Cleared for Cultivation Near the Stream at 35M 801218.27 9911337.62



Plate 7: Siltation of Streams for Example at 35M 805772.06 9903414.15, Kazinga

No any plant species of conservation concern in accordance with the IUCN (2022) criteria was encountered in all three micro-catchments (Kazinga-Kiruruma, Mitano Lower and Rushaaya). However, tree species that are protected under the NFA Act referred to as NFA reserved tree species were recorded which were *Albizia coriaria*, *Albizia zygia*, *Ficus elastic*, *Ficus natalensis*, *Ficus sur*, *Ficus sycomorus*, *Ficus vallis-choude* and *Maesopsis eminii*. These are in addition to *Milicia excelsa*, *Lovoa swynnertonii*, *Mitragyna stipulosa*, *Albizia glaberrima*, *Albizia grandibracteata*, *Pterygota mildbraedii* and *Pinus caribaea* (all conifers). These tree species were also recorded during ESIA studies for Matanda Irrigation scheme.

On the other hand, three invasive species of plants *Lantana camara*, *Mimosa pigra* and *Senna spectabilis* were encountered at several points in the Kazinga-Kiruruma, Mitano Lower and Rushaaya micro-catchments. *Lantana camara* is an invasive species of terrestrial ecosystems, however for these surveys it had established thickets, bushes and scattered individuals in

different wetlands and along streams a situation which was worse in *Eucalyptus* sp woodlands where it had dominated the understorey. *Mimosa pigra* is an invasive species of permanent wetlands and similar to *Senna spectabilis*. The two had a coverage less than that of *L. camara*. These plants had already established flowering individuals at majority of the points that were surveyed thus the potential to invade different areas in the catchment were very high. Their presence is indicative of wetland degradation through several forms of human activity.



Plate 8: *Mimosa pigra* encountered for example at 35M 806302.51 9928388.32



Plate 9: *Lantana camara* encountered for example at 35M 0806219 9928833

b) Fauna

i). Birds

A total of ninety-three (93) species of birds were recorded during surveys in all three micro-catchments of Kazinga – Kiruruma, Mitano Lower and Rushaaya. This is eleven species lower than those recorded during ESIA (2020) studies. This number is however, a true representation of avi fauna in the micro-catchments since the difference in both surveys was low and also that all the species encountered were also recorded in the ESIA. This relatively high number of birds within cultivation matrix is probably attributable to the close proximity of the micro-catchments to QENP, from which birds get safe habitats and food resources. There was no major difference in the species richness between micro-catchments and most abundant species in all three micro-catchment included Blue-spotted Wood Dove (*Turtur afer*), Speckled Mousebird (*Colius striatus*) Red-faced Cisticola (*Cisticola erythrops*) and Tropical Boubou (*Laniarius aethiopicus*), Common Bulbul (*Pycnonotus barbatus*) and Red-eyed Dove (*Streptopelia semitorquata*). The percentages for the species richness in Kazinga-Kiruruma, Mitano Lower and Rushaya micro catchments is 36%, 32% and 32% respectively.

The species that use wetlands as their preferred habitat were few and they included the Grey crowned Crane, Yellow-Backed weaver and Grosbeak Weaver a situation attributed to wetland degradation within catchments.

According to IUCN, only one species the Grey Crowned Crane assessed as endangered (EN).

ii). Mammals

No mammalian species was visually encountered during mammalian surveys in the micro-catchments. From local informants however, the Bunyoro Rabbit (*Paelagus marjorita*), the

Baboon (*Papio Anubis*), Black and White Colobus (*Colobus gueleza*) and the Vervet monkey (*Chlorocebus pygeruthrus*) were registered. These together with those that were recorded during ESIA surveys (common house rat (*Rattus rattus*), African pygmy mouse (*Mus minutoides*), the Marsh mongoose (*Atilax paludinosus*), *Graphiurus murinus*, *Arvicanthis niloticus*, *Gramommys dolichurus*, *Lemniscomys striatus*, *Lophuromys sikapusi*, *Mastomys natalensis*, Ethiopian Epamophore (*Epomophorus labiatus*) and Giant rat (*Cricetomys emini*)) put the total of Mammalian fauna in the micro-catchments outside QENP to eleven (11).

All the species registered easily adapt to human modified habitats and their survival is more enhanced if there is a protected zone nearby from which they get safety and only move out in search for more food resources. Other Mammalian species recorded are those medium and large sized mammals that stray out of the boundaries of QENP to the nearby communities. Commonly seen in this category were the African elephant (*Loxodonta africana*), Buffalo (*Syncerus caffer*), Uganda Kob (*Kobus kob*) and the bushbuck (*Tragelaphus scriptus*). These findings from the catchment indicate very low species richness which can be attributed to intensive management of the cultivation fields which led to loss of natural habitats that would support a variety of mammalian fauna.

All species recorded in the micro-catchments outside QENP are considered as least concern according to IUCN red listing (2022), because they are considered numerous in their preferred habitats, highly adaptable to human modified habitats, under no threat and no evidence of their population reducing.

iii). *Herptiles*

A total of three herptiles all of which were reptiles (The Nile crocodile, Nile monitor Lizard and Olive grass snake) were registered during the surveys in the three micro-catchments. These in addition to the seven (five reptiles and two amphibians) that were recorded during ESIA surveys for the schemes, put the total number of herptiles in the micro-catchments to ten (10). All those recorded were mature individuals that were either sighted or reported by local residents. Apart from the Nile crocodile that was reported to occasionally stray out of QENP into gardens on river Ntungwe, all the sighted animals were encountered in fields of cultivation. This is probably due to homogeneity of the land cover which is currently fields of cultivation covering the largest section in the micro-catchments.

All species recorded were assessed as least concern according to IUCN red listing (2022), because they are considered numerous in their preferred habitats, under no threat and no evidence of their population reducing.

iv). *Fishes*

Despite having several wetland systems degraded, the micro-catchment had 96 fish individuals making a total of 14 fish species from 9 genera and 6 families. Family Cyprinidae had the highest number of species (05) while Amphiliidae had the least (01). Majority of the fish were recovered from Upstream followed by the downstream areas and these areas which had some sections with high water levels and natural vegetation cover which means they provide suitable breeding grounds for fish. It is also evident that fish always feed on the most abundant prey organisms within the water column.

c) Protected Areas

i). National Parks

Queen Elizabeth National Park (QENP) is the only national park in the study area and it extends through Kazinga-Kiruruma and Rushaya micro-catchments. The Park is home to lots of wildlife including Mammals (e.g Cape buffaloes, Hippopotami, Elephants, Leopards, Lions, Bushbucks, Waterbucks, Uganda Kob, Baboons and Chimpanzees), Herpetiles (Crocodiles, Snakes, Lizards, frogs and toads, etc.), several bird species from both migratory and resident species, Insects all of which are of Tourism and Conservation value. While the areas at the peripheries of the QENP were under intensive cultivation, those immediately within the QENP were majorly characterized by savannah bush grassland with thickets and scattered trees, woodlands and bushed woodlands. Plant Species observed at entry points included *Sesbania sesbani*, *Acacia gerraldii*, *Ludwigia octovalvis*, *Panicum maximum*, *Pennisetum purpureum*, *Albizia grandibracteata*, *Triumfetta macrophylla*, *Albizia coriaria*, *Hyparrhenia dissolute* and *Lantana camara* all of which were not of conservation concern.

ii). Private and Central Forest Reserve

The micro catchments are endowed with central forest reserves (CFRs) that include Mburamaizi (5.1Km²), Kihihi (0.36Km²) and Kyantuhe (2.1Km²) in Kazinga-Kiruruma micro catchment; Kaniabizo (0.4Km²), Ihimbo (4.8 Km²), Bwambara (0.4Km²) and Rwengiri CFR (1.6Km²) in Rushaya micro-catchment. All these CFRs are heavily degraded for harvesting forest products such as poles, timber, fuel wood, opening of land for cultivation, eucalyptus growing and human settlement. The efforts to restore and conserve forests on public and private land can yield incredible benefits such as stabilizing climatic conditions, providing habitats for fauna such as mammals, reptiles, insects, amphibians and birds, prevention of soil erosion, nutrient recycling in soil, soil moisture conservation, flood control, providing shade for crops and soil enhancement and providing socio and cultural services among others.

1.2 MICRO CATCHMENT MANAGEMENT RELATED ISSUES

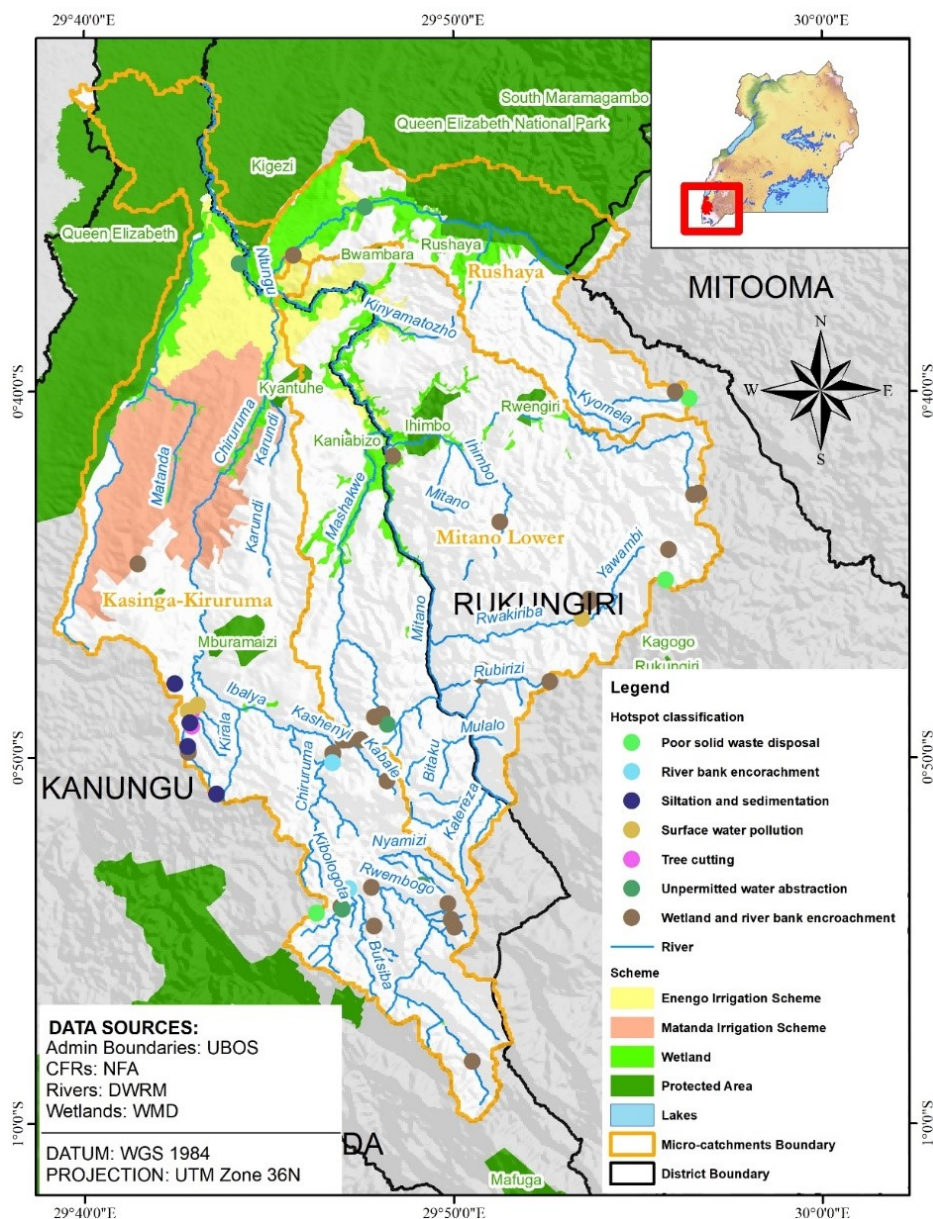
A threat is an activity, process, built structure or natural feature that presents a potential danger to water quality, water quantity or reliability of water in the environment. A hotspot is an area that is suffering from serious environmental degradation and needs immediate improvement. A number of priority issues/threats were identified in the micro-catchments of Kazinga-Kiruruma, Mitano Lower and Rushaya including their drivers as highlighted in the table below.

Table 12: Priority catchment management Issues and their drivers in the Micro-catchments

| S/n | Threats/Issues | Drivers | Kazinga – Kiruruma | Lower Mitano | Rushaya |
|-----|---|---|--------------------|--------------|---------|
| (1) | Wetland encroachment and depletion leading to floods, drought, climate change, etc. | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Agricultural activities (crop cultivation, livestock grazing/watering) • Artisanal mining (sand, clay, gold) • Brick-making | x | x | x |

| S/n | Threats/Issues | Drivers | Kazinga – Kiruruma | Lower Mitano | Rushaya |
|-----|---|--|--------------------|--------------|---------|
| (2) | Riverbank encroachment leading to floods, siltation, sedimentation, water pollution, etc. | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Agricultural activities (crop cultivation, livestock grazing/watering) • Artisanal mining (sand, clay, gold) • Brick-making • Washing bays | x | x | x |
| (3) | Deforestation leading to floods, drought, climate change, soil erosion, biodiversity loss, etc. | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations. • Lumbering, charcoal burning, firewood • Land clearing for agriculture • Sand mining • Murram extraction | x | x | x |
| (4) | Unregulated alcohol distillation | <ul style="list-style-type: none"> • Lack of awareness • Weak enforcement of applicable laws and regulations • Lack of alternative livelihoods | x | x | x |
| (5) | Bush burning | <ul style="list-style-type: none"> • Lack of awareness • Lack of enforcement of applicable laws and regulations • Land clearing for cultivation. | x | x | x |
| (6) | Soil degradation leading to low crop yields | <ul style="list-style-type: none"> • Low soil fertility. • Lack of appropriate farming skills and knowledge. • Pests and diseases • Limited access to quality inputs e.g., drought resistant seeds and agrochemicals. • Lack of access to financial services/credit | x | x | x |

Figure below shows the location of the hotspot areas within the Kazinga-Kiruruma, Mitano-Lower and Rushaya micro catchments.



a) Wetland Encroachment and Depletion

Severe cases of wetland encroachment and reclamation for crop cultivation, brick making and establishment of settlements, were widely encountered within all three micro-catchments (Kazinga – Kiruruma, Mitano Lower and Rushaya) and all over the three districts at large. Wetland systems are being used for the intensive cultivation of crops like matooke, tea and eucalyptus trees, vegetables, etc. Degradation of wetlands reduces their buffering capacity which has several benefits. Wetlands, slow down the speed of runoff water passing through them, thereby acting as natural flood control agents. Also, the reduction of flow speeds leads to deposition/removal of nutrients, preventing rapid accumulation of these substances in the receiving water bodies. Wetlands are known to recharge ground and surface water and their degradation directly impacts on water release and recharge.

High population growth rate, income generating activities and food insecurity are leading to alarming rates of encroachment on the available wetlands. The removal of deep-rooted perennial vegetation and its replacement by shallow-rooted pasture and crop species reduces evapo-transpiration, thereby allowing ground water to rise and ground and surface water flows to increase.



Plate 10: Brick-making in a Wetland in Rukungiri Municipality



Plate 011: Gold Mining in a Wetland without any Restoration in Kanungu TC

b) River Bank Encroachment

In all three micro-catchments of Kazinga-Kiruruma, Mitano Lower and Rushaaya, riverbanks have been encroached for various activities such as cultivation, watering of animals, sand mining, car/motor cycle washing, etc. Examples of degraded riverbanks are shown in Plate 0 and Plate 0. As an example, dirty water containing soap, detergents, residue from exhaust fumes, gasoline, heavy metals from rust, and motor oils can wash off cars and motor cycles and flow directly to the streams where it can harm water quality and wildlife. The phosphates from soap can cause excess algal blooms. Tea plantations might also be a danger to the river systems due to the chemicals being applied into the plantations. Eucalyptus trees, which are scattered in all three micro-catchments especially near the rivers/streams and wetlands, have had impacts on water quantity in the rivers.



Plate 012: River bank encroachment in Bwambara Sub-County



Plate 013: River encroachment in Kanyantorogo Sub-County

c) Deforestation

Indiscriminate tree cutting for charcoal burning, clearing land for cultivation/gardens, firewood mostly for burning bricks during brick-making as well as replacing indigenous trees with eucalyptus trees are the main activities for deforestation. This threat was reported by local communities during stakeholder engagement and also observed during the transect walks. Deforestation was predominant along wetland ecosystems and CFRs of Bwambara and Mburamiizi. Loss of tree cover leads to reduced biodiversity, water infiltration and percolation and thus having long-term impacts on the ground water recharge. Also, increased surface run-off increases the risk of floods and soil erosion and transportation of sediments to the streams which affects raw water quality.



Plate 14: Tree Cutting in Mburamiizi CFR for Sand Mining



Plate 015: Tree Cutting to Prepare Land for Cultivation in Kanyantorogo Sub-County



Plate 016: Deforestation at Kiruruma CFR for Cultivation Activities at UTM: 0802214, 9910070, Kishayo Village, Burema Parish, Kanyantorogo Sub-County



Plate 17: Deforestation for Firewood to Bake Bricks at UTM: 0811429, 9909804), Kanyamomo Cell, Kambuga Town Council



Plate 18: Eucalyptus being harvested in Rwengiri CFR. photo taken 18th 03 2022.



Plate 019: Degraded Ihimbo CFR in Kyabulere and Burara Parishes, 18th 03 2022.

d) Alcohol Distillation along Streams

Local communities within the micro-catchments do alcohol distillation and dispose the residues of sugarcane and banana (raw materials) in the rivers. The hot water from cooling

process during distillation is also discharged back to the river which might affect water quality and aquatic environment.



Plate 020: Alcohol Distillation Along Kanyabuganga River, Lat -0.812149, Long 29.71363



Plate 021: Signs of Alcohol Distillation Along River Mitano, Lat -0.69622 Long 29.80615



Plate 022: Distillation of Local Brew along River Kiruruma at 35N 806202.77 9928308.7

e) Bush Burning

Bush burning was reported by the consulted stakeholders, both Local Government officials as well as community members. This practice is majorly practiced by livestock farmers for rejuvenation of pasture during the dry season or in the process of land preparation for crop cultivation.

f) Weak Institutional Capacity

Local Government Authorities from District to the Parish level where the three micro-catchments are situated lack adequate financing to implement their mandate such as surveillance and enforcement of established programmes, laws and regulations.

g) Low Crop Yields Leading to Food Insecurity

In the micro-catchment areas, low crop yields came out as one of the challenges households faces in meeting their income and food needs. This attributed to soil exhaustion resulting from all-year round cultivation and without application water and soil conservation methods like mulching and terracing. Households in a bid to address food insecurity are forced to eke a living from cultivation in marginal areas such as protected areas.

From the discussions, it emerged during the household survey that there is a tendency to cultivate the small land acreage available to produce enough for domestic consumption and for sale. However due to poor farming methods, soil fertility declines to the extent that the land cultivated does give enough yields (food) as needed by the household.

2 OBJECTIVES

The overall objective of the assignment is to support communities in the micro-Catchments around Matanda/Enengo irrigation scheme to implement catchment-based and community driven actions to improve soil and water conservation, riverbank & wetland restoration, reforestation and community livelihood improvements.

The specific objectives of the assignment are to:

- f) identify, mobilise, engage and build capacity of stakeholders and communities in undertaking catchment-based and community driven catchment management measures.
- g) support communities to restore degraded hotspot wetlands and/or riverbanks in Kazinga-Kiruruma, Lower Mitano and Rushaya micro catchments
- h) support communities to implement soil and water conservation measures on priority hotspots in the micro catchments.
- i) Support communities to restore deforested and degraded land through community tree growing on individual farmers land, public land and riverbanks
- j) support communities to establish and promote alternative income generating activities for improved livelihoods.

3 SCOPE OF SERVICES

This assignment seeks to support communities in the micro-Catchments around Matanda/Enengo irrigation scheme to implement catchment-based and community driven actions to improve soil and water conservation, wetland and riverbank restoration, reforestation and community livelihood improvements. Thus, community mobilisation and sensitisations will be key to the implementation of the assignment. The micro-Catchment management committee shall play a major role in this assignment and the Service Provider is requested to engage and involve them accordingly.

As part of general items and cross-cutting aspects, the Service Provider shall identify key stakeholders including community and Local Government representatives and develop appropriate mobilisation and sensitisation tools and approaches. The Service Provider shall carry out community capacity building sessions during implementation of the assignment. Meetings, radio talk shows, and guided field tours to sensitise communities on the importance of ecosystems protections and management will be organised. Interim stakeholder identification, engagement and capacity building reports will be produced at key events but

stakeholder engagement and training will be a continuous process. The final report will be produced at the end of the assignment. Specifically, the service provider shall;

- Organize four 5-day exchange visits and study tours to other catchments
- Organise monthly 1-hour local radio talk shows on the ongoing activities in the micro-catchment.
- Produce monthly progress and other associated output Reports
- Organise monthly joint onsite inspections and monitoring by client and other technical staff.
- Establish and maintain 6 site sign-boards

The following tasks will be undertaken.

Task 1: Support communities to restore degraded stretches of riverbanks through use of catchment management measures

In Kazinga-Kiruruma Micro-Catchment

Under this task, 80km (40km on each side) of the degraded stretches of the major rivers in Kazinga-Kiruruma Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)
- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 63,400 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 80km buffer zone (40km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).
- Procure 12,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 40km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the AWMZ staff after the project.

In Lower Mitano Micro-Catchment

Under this task, 80km (40km on each side) of the degraded stretches of the major rivers in Lower Mitano Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 200 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)
- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 63,400 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 80km buffer zone (40km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).
- Procure 12,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 40km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 200 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the AWMZ staff after the project.

In Rushaaya Micro-Catchment

Under this task, 60km (30km on each side) of the degraded stretches of the major rivers in Rushaaya Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Mobilise 150 community members, raise their awareness on the importance of riverbank protection, restoration and management to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 150 community members to undertake and adopt the riverbank protection and restoration measures including riverbank stabilization using grasses, tree lines, stones and organise members to develop site specific riverbank protection and restoration action plans (50 members per training for 2 days)

- Provide tools (wheelbarrows, Hoes, spades, Peak Axe, Pangas etc.) to communities for use in implementing the riverbank protection and restoration action plans.
- Provide 47,600 indigenous tree seedlings of an average height of 30cm (obtained from tree nurseries in the catchment) to Communities.
- Demarcate off and re-vegetate 60km buffer zone (30km on each side) buffer zone/stretch of the river using live markers like indigenous trees, and fruit trees planted in 3 lines along the river at spacing 5m x 5m (660 tree seedlings per km, incl. 20% spoilt during transportation + replacement planting).
- Procure 9,000 Sisal Sacks of size 50kgs and fill with humus soil and sand for treating severe sections before planting of vetiver grass (each km to be treated with 300 sacks with soil)
- Stabilize 30km buffer zone/stretch on both sides of the rivers using vetiver grass strips (Each km is covered by 5,000 vetiver slips) at a spacing of 20cm.
- Organise Micro -catchment level meeting for 150 people involving districts to prepare standard operating procedures (SOPs) for responsible sand mining.
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival rate of trees. This shall remain the responsibility of the SCMC and the AWMZ staff after the project.

Task 2: Support restoration of degraded Wetlands to perform their ecological and socio-economic functions

In Kazinga-Kiruruma Micro-Catchment

Under this task, 80ha of the degraded wetlands in Kazinga-Kiruruma Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organize members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days)
- Provide tools to communities to implement wetland protection and restoration action plans
- Procure 6,400 Sisal stems as local planting materials to demarcate the 80ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m)
- Demarcate off 80ha buffer zone of the wetland using tree lines (80 Sisal stems per ha at a spacing of 5m by 5m)
- Engage and strengthen 50 people of the sub catchment structure to develop/enforce Wetlands management plans and enforce by laws for the demarcated wetlands in the sub catchment
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

In Lower Mitano Micro-Catchment

Under this task, 100ha of the degraded wetlands in Lower Mitano Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting)
- Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organize members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days)
- Provide tools to communities to implement wetland protection and restoration action plans
- Procure 8,000 Sisal stems as local planting materials to demarcate the 100ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m)
- Demarcate off 100ha buffer zone of the wetland using tree lines (80 Sisal stems per ha at a spacing of 5m by 5m)
- Engage and strengthen 50 people of the sub catchment structure to develop/enforce Wetlands management plans and enforce by laws for the demarcated wetlands in the sub catchment
- Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

In Rushaaya Micro-catchment

Under this task, 100ha of the degraded wetlands in Rushaaya Micro Catchment shall be restored through use of catchment management measures. Accordingly, the Service Provider shall;

- i). Conduct awareness raising meetings targeting 200 community people and the leadership on the importance of restoration and management of wetlands to ably participate in the restoration process (50 members per meeting)
- ii). Conduct trainings for 200 community members to undertake and adopt the wetland protection and restoration measures and organize members to develop site specific wetland protection and restoration action plans. (50 members per training for 2 days)
- iii). Provide tools to communities to implement wetland protection and restoration action plans
- iv). Procure 8,000 Sisal stems as local planting materials to demarcate the 100ha (each ha to be covered with 80 suckers of sisal at a spacing of 5m by 5m)
- v). Demarcate off 100ha buffer zone of the wetland using tree lines (80 Sisal stems per ha at a spacing of 5m by 5m)
- vi). Engage and strengthen 50 people of the sub catchment structure to develop/enforce Wetlands management plans and enforce by laws for the demarcated wetlands in the sub catchment
- vii). Carry out quarterly inspections and monitoring of the interventions after establishment to ensure high survival. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

Task 3: Support communities in catchment rehabilitation through soil and water conservation measures, contour bunds on priority hotspots in;

In Kazinga-Kiruruma Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 50ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)
- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 40Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

In Lower Mitano Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 50ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, storm water diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)

- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 40Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

In Rushaaya Micro-Catchment

Soil and water conservation measures shall be promoted and established under this task on 50ha of individual farmers/public land to restore degraded hotspots and reduce/control runoff to control soil erosion and siltation. This shall, however, be carried out as described in the scope of works. Accordingly, the Service Provider shall;

- Mobilise 200 community members and raise their awareness on the advantages of controlling soil erosion/floods through use of water harvesting and biophysical measures to as to ably participate in the implementation activities (50 members per meeting)
- Conduct trainings for 200 community members from selected communities to undertake and adopt on soil and water conservation practices for each of the parishes at selected farms: infiltration trenches, stormwater diversion drains, percolation ditches; grow trees, shrubs grasses on contour bunds; gully control developed terraces. Use of other agronomic measures such as cover crops, Conservation Tillage, Deep Tillage, Conservation Farming, Contour-Farming, Mulching, Growing of Cover Crops, Strip Cropping, Mixed Cropping, etc. (50 members per training for 3 days)
- Provide tools (wheelbarrow, Handles, Spades, Pangas, etc.) to communities for use during the establishment of water harvesting and soil and water conservation structures (terracing, soil bunds, infiltration pits etc.)
- Establish 10 Ha of soil and water conservation structures at selected farm sites to serve as training and demonstration centres.
- Support individual farmers to establish 40Ha similar soil and water conservation structures on the hotspots identified on their individual land.
- Carry out quarterly inspections and monitoring of the established structures to ensure survival and growth of the planted species and also to ensure effective functioning of the structures established. This shall remain the responsibility of the MCMC and the AWMZ staff after the project.

Task 4: Support communities to restore deforested and degraded communal and individual land through tree growing in;

In Kazinga-Kiruruma Micro-Catchment

Restoring of 100 Ha of degraded communal and individual land in Kazinga- Kiruruma through tree growing (afforestation, reafforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration

- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 40,000 tree seedlings of average height of 30cm to communities
- Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

In Lower Mitano Micro-Catchment

Restoring of 100 Ha of degraded communal and individual land in Lower- Mitano through tree growing (afforestation, reforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration
- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 40,000 tree seedlings of average height of 30cm to communities
- Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

In Rushaaya Micro-Catchment

Restoring of 100 Ha of degraded communal and individual land in Rushaaya through tree growing (afforestation, reforestation, and agroforestry) will be carried out. Accordingly, the service provider shall;

- Mobilise and sensitize 200 households in 4 meetings to engage in tree growing initiatives
- Conduct 4 trainings to 200 households in tree growing and forest management for restoration
- Provide tools and materials (wheelbarrow, Handles, Spades, Pangas, etc.) to 200 households for use during tree growing.
- Provide 40,000 tree seedlings of average height of 30cm to communities
- Plant 40,000 tree seedlings of average height of 30cm to communities and restore 100 ha of degraded land (at a spacing of 5m x 5m) under technical supervision.
- Carry out quarterly inspections and monitoring to provide extension services during and after establishment to ensure tree survival and growth.
- Facilitate 30 members of sub-catchment structures to develop and enforce bye-laws to manage the tree growing

Task 5: Support communities to establish and promote alternative income generating activities for improved livelihoods in;

In Kazinga-Kiruruma Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g. improved cookstoves), fruit growing, and fish farming as alternative income generating activities shall be promoted and supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored. Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

1. Support Bee-keeping as alternative income generating activity
 - Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
 - Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
 - Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 3 groups
 - 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups
 - 1 Air tight Bucket (20ltrs for each of 3 groups)
 - 1 Kg of bee wax for each of 3 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups
 - 1 bee knife and 1 Bee brush for each of 3 groups
 - 1No. Honey extractor to each of the 3 groups
 - Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per farmer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.).
 - Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).
2. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity
 - Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
 - Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)

- Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.
 - Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.
3. Support fruit growing as alternative income generating activity
- Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.
4. Promote fish farming as alternative income generating activity.
- Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting)
 - Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management).
 - Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) and facilitate each of the 2 groups (labour) to construct 2 (20m x 15m) dug out shallow ponds, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m²) of the pond base
 - Prepare the 2 ponds to receive fish:
 - fill the pond with water;
 - fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level);
 - if you use compost, add about 10 kg per 100 m²
 - if you use animal manure, add per 100 m² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure
 - if you use plant wastes only, keep the fertilizing crib full
 - pack this material tightly in each crib
 - Stock the 2 ponds each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes
 - Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fishponds by the farmers) for 10 days per month for 6 Months.

In Lower Mitano Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g. improved cookstoves), fruit growing, and fish farming as alternative income generating activities shall be promoted and

supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored. Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

1. Support Bee-keeping as alternative income generating activity

- Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
- Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
- Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 3 groups
 - 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups
 - 1 Air tight Bucket (20ltrs for each of 3 groups)
 - 1 Kg of bee wax for each of 3 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups
 - 1 bee knife and 1 Bee brush for each of 3 groups
 - 1No. Honey extractor to each of the 3 groups
- Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per farmer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.).
- Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).

2. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity

- Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
- Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)
- Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.

- Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.
3. Support fruit growing as alternative income generating activity
- Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.
4. Promote fish farming as alternative income generating activity.
- Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting)
 - Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management).
 - Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) and facilitate each of the 2 groups (labour) to construct 2 (20m x 15m) dug out shallow ponds, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m²) of the pond base
 - Prepare the 2 ponds to receive fish:
 - fill the pond with water;
 - fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level);
 - if you use compost, add about 10 kg per 100 m²
 - if you use animal manure, add per 100 m² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure
 - if you use plant wastes only, keep the fertilizing crib full
 - pack this material tightly in each crib
 - Stock the 2 ponds each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes
 - Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fishponds by the farmers) for 10 days per month for 6 Months.

In Rushaaya Micro-Catchment

Under this task, Bee-keeping, energy saving technologies (e.g. improved cookstoves), fruit growing, and fish farming as alternative income generating activities shall be promoted and supported. The beneficiaries of these alternative livelihoods are the land owners along river banks, and other degraded areas to be restored. Each community member or farmer will select the enterprise they are interested in and it is after this that the list of farmers per enterprise will be

generated. Success will be measured based on the number of community members or farmers that adopt and use the different alternative income generating activities. This shall however be carried out as described in the scope of works

Accordingly, the Service Provider shall;

1. Support Bee-keeping as alternative income generating activity

- Mobilise and engage 100 selected farmers to identify the potential site (0.25ha) for beekeeping/ apiary establishment.
- Train 100 selected farmers in bee keeping and siting of apiary; Hives deployment and baiting; Inspection and maintenance of deployed hives; Honey harvesting and handling; and Marketing including value-addition.
- Provide key beekeeping equipment to 3 farmer groups each with 20 bee hives as:
 - 20 KTB beehives for each of 3 groups (standard size; lid is 58cm x 97cm, Side 33cm x 88.9cm, Bottom is 22.9cm x 96.5cm)
 - 1 Smoker pump (metallic) for 3 groups
 - 02 (15-20 litre) plastic buckets for (harvesting honey combs) to each of 3 groups
 - 1 Honey metallic aluminium non-corrosive material Settling Tank (25lts) for each of 3 groups
 - 1 Air tight Bucket (20ltrs for each of 3 groups)
 - 1 Kg of bee wax for each of 3 groups
 - 1 protective wear (an overall with a hat with a net and gloves all in one-to protect from stings) for each of 3 groups
 - 1 bee knife and 1 Bee brush for each of 3 groups
 - 1No. Honey extractor to each of the 3 groups
- Provide bee colonies to the selected farmers to start beekeeping and establish apiaries each with 20 bee hives. Install hives at least 1-1.5m above ground and at 5m interval (distance between hives) for easy management of pests. Identify and fence off an area of 0.25 ha per farmer for establishing the apiary, using local live fencing trees of an average height of 1.5-2m high (e.g. Ficus natalensis – mutuba spaced at 3 metres) and three lines of barbed wire all round. Plant suitable fodder trees and shrubs (e.g. Calliandra, Eucalyptus, bottle brush trees, neem tree, etc.).
- Provide technical support to bee-keeping farmers: Carry out quarterly colony inspection and management to monitor status of colony development, disease condition, and presence of queen, brood (eggs, larvae and pupae), and amount of food (pollen and nectar stores).

2. Support energy saving technologies (e.g. improved cookstoves) as alternative income generating activity

- Identify, mobilise and sensitise 150 community members on advantages of using improved cook stoves (50 members per meeting)
- Select and train 3 women groups of 20 members in construction, use, and maintenance, marketing of improved cook stoves (1-day training per group)
- Provide materials and equipment (wheelbarrow, Handles, Spades, Moulds, Pangas, Strings, etc.) to women groups and facilitate them (labour) to construct 2000 cookstoves for households.
- Carry out quarterly monitoring visits to the women groups to ensure the production, usage and maintenance of the constructed cook stoves is efficient and effective. This shall remain the responsibility of the MCMC and the VWMZ staff after the project.

3. Support fruit growing as alternative income generating activity
 - Identify and mobilise 100 fruit growing farmers, sensitise and engage the farmers to form 4 groups
 - Conduct one training to each of the farmer groups in eco-agriculture/agronomic practices (including soil and water conservation, pests and diseases control, fruit tree management, organic farming, post-harvest handling).
 - Provide 3500 orange seedlings of average height of 30cm per group to plant and maintain the seedlings (at a spacing of 4m x 4m) under technical supervision.
 - Provide technical support to fruit farmers that includes disease/pest control and prevention and conduct on farm monitoring per farmer per month for the first 6 Months.

4. Promote fish farming as alternative income generating activity.
 - Mobilise 150 community members and create awareness and engage selected farmers to form 2 farmer groups. (50 members per meeting)
 - Conduct One training (2-day) for each of the 2 famer groups of 40 members to adopt and practice improved fish farming practices (farm siting, pond construction, pond preparation, fish stocking, fish growing, fish harvesting, pond management).
 - Provide materials and equipment (wheelbarrows, hoes, pangas, spades etc.) and facilitate each of the 2 groups (labour) to construct 2 (20m x 15m) dug out shallow ponds, with water depth from 30 cm (upper end) to 150 cm (lower end). The banks should be 50 cm higher than the water on top, with a good slope on the sides, built with soil tightly packed and limed where necessary to lower acidity (100 – 200 g/m²) of the pond base
 - Prepare the 2 ponds to receive fish:
 - fill the pond with water;
 - fertilize the water once every two weeks for 6 months to keep it green (build a crib in the shallow end of the pond, fill it with compost, manure or plant wastes, pack it well under water up to the water level);
 - if you use compost, add about 10 kg per 100 m²
 - if you use animal manure, add per 100 m² one of the following: 2-3 kg of chicken droppings, or 8-10 kg of pig manure, or 10-15 kg of cow manure
 - if you use plant wastes only, keep the fertilizing crib full
 - pack this material tightly in each crib
 - Stock the 2 ponds each with 4500 fish fingerlings: of average density of 1 – 5 young tilapia fish (of length 3 – 15 cm) per square meter of pond area and feed fish once a day with local by-products and wastes
 - Provide technical support to fish farmers and monitor performance (in terms of growth of fish fingerlings, feeding fingerling, operation and maintenance of fishponds by the farmers) for 10 days per month for 6 Months.

2 ORGANISATION OF THE ASSIGNMENT

2.1 LIAISON WITH MWE/DWRM

The assignment will be coordinated by the focal point Manager for subcomponent 1.3 of the ICRP. However, coordination of day-to-day implementation of the activities will be done by the Albert Water Management Zones (AWMZ) working closely with the micro-Catchment Management Committee, and respective regional/district technical officers and backed up by MWE staff at the national level. The WMZs and the Catchment Management Committees will be strengthened to perform their roles of stakeholder collaboration and coordination, and guidance to the implementation of the priority interventions. This will be done through providing a platform to have regular meetings, trainings and providing them with the necessary equipment to facilitate their coordination role. The respective government agencies at both national and local levels will, however, take the lead in the implementation of interventions falling within their mandates.

All the contractual issues related to the assignment will be formally handled by the focal point but will be discussed and resolved where possible at the local level with the relevant technical staff at the WMZ and local governments as appropriate. The service provider will produce and issue relevant reports to the Client on key deliverables of the assignment in addition to monthly reports. The monthly reports will contain details of the work done and will also identify actual and anticipated difficulties and delays in the work, the causes, and remedial measures proposed. The firm shall submit 4 hard copies of each progress and technical report to the Client.

6.1 STAFFING/PERSONNEL

Important to note is that the implementation of this assignment shall be community-driven and so the community members on ground are envisaged to execute the activities therein. Therefore, the Service Provider shall employ and pay the community members for the work done as per agreed rates based on government Labour rates and precedence set by other similar projects.

Nevertheless, the Service Provider is required to elaborate in his technical offer on the envisaged logistical set-up and deployment of appropriate expert skills for the execution of the assignment. The Service Provider should carefully review the scope of services and propose a team of well-organised competent staff, adequately equipped with the necessary skills/facilities to guide the communities in execution of the assignment, bearing in mind that a substantial amount of work in this assignment is field based.

The Service Provider 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.

6.1.2 Staffing Requirements

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

- Water/Environmental Management expert (team leader)
- Forestry/Tree growing Specialist
- Soil and Water Conservation Specialist

- Community Development Specialist

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

6.1.3 Staffing Qualifications

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

- *1 No. Water/Environmental Management expert (team Leader):* A master's degree in Water/Environmental Engineering / Management / Science or related field with 8 years of general experience, 5 years of Specific experience in undertaking water related environmental assessments and in environment management planning. Experience in use of Geographical Information System tools will be an advantage.
- *1 No. Forestry/Tree growing Experts:* The Forestry/Tree growing Expert should have a Bachelor's degree in Forestry with experience of 10 years in tree growing. A minimum of 3 years' experience in training farmers in tree planting and agroforestry at community level will be needed.
- *1 No. Soil and Water Conservation Experts:* The Soil and Water Conservation Expert should have a Bachelor's degree in natural resources/ water resources management, Agriculture, or related field with experience of not less than 10 years in natural resources/water resources management. 3 years specific experience in construction of soil and water conservation structures, as well as community involvement and training farmers in catchment restoration measures will be needed.
- *1 No. Community Development Experts:* The Community Development Specialist shall hold at a minimum a bachelor's degree in social sciences, social works & administration, development studies or community psychology. A Master's Degree in those fields will be an added advantage. The proposed expert should have at least 5 years of working experience, of which 3 years should have been in natural resources management. The expert should have experience in undertaking impact, social and gender analysis. S/He should be knowledgeable in preparing appropriate awareness programs. The Expert shall be responsible for mobilising and sensitisation of communities during the project implementation process.

The experts are expected to have local experience and knowledge of conditions in the sub catchment. Ability to speak the local language by Community Development Expert will be required. The Service Provider may seek any additional expertise required for the assignment that may not be available among the team members.

6.1.4 Familiarisation with the Assignment

To familiarise with the services to be provided under this assignment, the prospective bidder is advised to visit the project areas. However, it should be understood that any cost incurred in this regard shall not be a reimbursable expense to the Service Provider.

The prospective bidder shall review the project documents, including but not limited to the environmental and social briefs prepared for the area, as well as the Environmental and Social Management Framework (ESMF).

7 REPORTS AND SCHEDULE OF DELIVERIES

The assignment will be undertaken over a maximum period of 24 calendar months.

It is however, the responsibility of the Service Provider to establish a detailed work program within the above time frame. 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 11.

Table 10: Reporting/Delivery Schedule

| Deliverable No. | Timing after Commencement | Content | No. of Copies of Reports |
|------------------------|----------------------------------|--|---------------------------------|
| D.1 | Month 2 | Draft Inception Report containing the Service Provider's mobilisation, updated work plan and schedule for the provision of the services. Should include any major inconsistency in the TOR, and other challenges that have become apparent during this period, methodology and time schedule for the services and the proposed content and structure of the various reports. | 4 |
| | Month 2.5 | Final Inception report | |
| D.2 | Month 7 | <ul style="list-style-type: none"> a. 100Ha of degraded land restored through soil and water conservation measures. b. 200Ha of deforested and degraded communal and individual land restored through tree growing c. 40Km of degraded riverbanks restore | 4 |
| D.3 | Month 10 | <ul style="list-style-type: none"> a. 50Ha of degraded land restored through soil and water conservation measures. b. 100Ha of deforested and degraded communal and individual land restored through tree growing c. 120Km of degraded riverbanks restored | 4 |
| D.4 | Month 14 | <ul style="list-style-type: none"> a. 100Ha of degraded wetlands restored b. 60Km of degraded riverbanks restored c. 400 households trained and supported in establishing alternative income generating (livelihood) activities | |
| D.5 | Month 18 | <ul style="list-style-type: none"> a. 180Ha of degraded wetlands restored b. 360 households trained and supported in establishing alternative income generating (livelihood) activities | |
| D.6 | Month 21 | 260 households trained and supported in establishing alternative income generating (livelihood) activities | 4 |
| D.7 | Monthly | A report comprising of a narrative or graphic presentation, showing details of the Service Provider's progress, changes in the assignment schedule, impediments and proposed remedies, in addition to documentation on lessons learned. | 4 |
| D.8 | Every 3 months | Stakeholder identification, mobilisation, engagement and capacity building Reports | 4 |

The Service Provider 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.

The Service Provider shall work closely with the Client with the aim of capacity building and knowledge transfer.

The time provided is only indicative of the expected time used for each item but the order of implementation will be explained by the service provider with justification in the technical proposal.

All reports will be submitted to:

**The Director,
Directorate of Water Resources Management
P.O. Box 20026,
Kampala, Uganda**

For the attention of: Dr. Callist Tindimugaya
Commissioner, Water Resources Planning and Regulation Department
Telephone: +256772521413
Email: callist.tindimugaya@mwe.go.ug, callist_tindimugaya@yahoo.co.uk

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

8 DATA, SERVICES AND FACILITIES 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 the custody of the client 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) Micro-Catchment Management Plan for micro-catchments around Matanda/Enengo Irrigation Scheme.
- (ii) Environmental and Social Project Brief
- (iii) Report on Priority Catchment Management Measures