implemented by:
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Terms of Reference

Chirundu
Joint Cross-Border Water Supply and Sanitation Project (Zambia/Zimbabwe)

Consultancy Services to carry out

Pre-feasibility and Feasibility Studies

Terms of Reference

August 2018

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Abbreviations

CRIDF	Resilience Infrastructure Development Facility
CLB	Chirundu Local Board (Zimbabwe)
CTC	Chirundu Town Council (Zambia)
Eng.	Engineer
GIZ	Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH
ICPs	International Cooperating Partners
IWRM	Integrated Water Resources Management
KAPB	knowledge, attitudes, behaviour and practices
KAPB	Knowledge, attitudes, behaviour and practices
LWSC	Lusaka Water and Sewerage Company
MLGPW & NH	Ministry of Local Government, Public Works and National Housing (Zim)
MoU	Memorandum of Understanding
MWDSEP	Ministry of Water Development, Sanitation and Environmental Protection
NRW	non-revenue water
NWASCO	National Water Supply and Sanitation Council (Zambia)
O&M	Operation and maintenance
OSBP	One Stop Border Post
PCP	Public Consultation Process
PR	poverty reduction
RI	regional integration
RIDMP	Regional Infrastructure Development Master Plan
RSAP	Regional Strategic Action Plan
SADC	Southern African Development Community
ToR	Terms of Reference
TWMP	Transboundary Water Management Project
VIPs	Ventilated pit latrines
WASH	Water, Sanitation & Hygiene.
WSPs	waste stabilisation ponds
WTPs	Water treatment plants
ZIMRA	Zimbabwe Revenue Authority
ZINWA	Zimbabwe National Water Authority
ZRA	Zambia Revenue Authority

1 Introduction

The GIZ Transboundary Water Management (TWM) project supports the implementation of SADC's fourth Regional Strategic Action Plan for Water (2016-2020) commissioned by the German Federal Ministry of Economic Cooperation and Development (BMZ) with co-financing from the United Kingdom's Department for International Development (DFID). Within its Output A focus is given to the mobilization of financial resources for cross-border water infrastructure development. The aim is to capacitate SADC Member States (MS) in project preparation and accessing finance for water infrastructure. The project supports MS to prepare pre-feasibility and feasibility studies of bankable infrastructure projects for subsequent submission to a financing institution for implementation. The GIZ TWM maintains close cooperation with the SADC Water Division and the KfW funded Water and the Regional Fund for Water Infrastructure and Basic Sanitation hosted by the Development Bank of Southern Africa.

The SADC Secretariat is implementing the Regional Infrastructure Development Master Plan (RIDMP) whose aims are guided by the Regional Indicative Strategic Development Plan (RISDP), which in particular is pursuing the goals of regional integration (RI) and poverty reduction (PR). In the Water Sector the SADC Secretariat's implementation of the infrastructure programme under the RISDP and the RIDMP is directed through the fourth Regional Strategic Action Plan (RSAP IV), which also responds to the dictates of the SADC Protocol on Shared Watercourses.

To this end, SADC Secretariat with the support of GIZ TWM is implementing transboundary water infrastructure projects to improve cross-border water supply and sanitation in the border towns at some selected border towns/crossings. This is in pursuit of the goals of RI and PR through water infrastructure, using the cross-border water supply and management philosophy as a vehicle of transboundary cooperation.

Two projects are already under implementation between Mozambique and Swaziland in the Lomahasha/Namaacha border towns and on the Tunduma and Nakonde border towns between Tanzania and Zambia. SADC is looking for more projects that can be implemented using the same model, but which have a strong link to the SADC transport corridor initiative and the recently launched Regional Industrialisation Strategy and Action Plan.

In line with this agenda the governments of Zambia and Zimbabwe have agreed to conduct a pre-feasibility/feasibility study for the Chirundu cross border project with technical backstopping support from SADC and GIZ. The study shall provide further basic information, and shall specify the scope and design of the project as well as develop the terms of reference for the detailed engineering design of the project.

2 Project area

Chirundu is a settlement on the Zambezi River between Zambia and Zimbabwe. The settlement is an important international border for the North-South Corridor linking eastern and southern Africa. The transport corridor is the busiest regional transit transport link in eastern and southern Africa, carrying 5.8 million tons of cross-border traffic extending over three regional and economic groups, COMESA, SADC and SACU.

The Chirundu settlement consists of two towns, Chirundu Zambia with a population of approximately 15,000 and Chirundu Zimbabwe with a resident population is estimated at just below 4,000. Chirundu Zambia serves also as the capital for Chirundu district. Both settlements have a predominantly young and growing population, which is under-served in terms of basic services. About 25% of the population live in informal settlements.

Chirundu is surrounded by wildlife/safari areas in both countries, and it is also a popular destination for fishing with a high potential for agriculture, trading and tourism related developments.

More detailed information on the two towns and their water supply and sanitation related issues is provided in Appendix I of these ToRs.

3 Objectives and working concept of these consultancy services

3.1 Purpose of the assignment

The purpose of this assignment is to assess and evaluate the general viability of a joint cross-border water and sanitation project at Chirundu given the SADC goals and the recent developments on either side of the border. The assignment should result in the development of pre-feasibility and feasibility study reports and all supporting documents which will assist in the mobilisation of funding for the implementation of a joint cross border water supply and sanitation project at Chirundu as well as provide detailed ToRs for detailed engineering design for construction of the project.

3.2 Assignment objectives

The project is expected to improve joint planning and development of WSS services as well as boost cross border cooperation in integrated water resources management (IWRM).The objectives of these consultancy services are to:

(i) Generate and present sufficient information to enable a decision to be made on the funding of the project. The information should subscribe to criteria that have been used by SADC in similar projects (such as the criteria used by the SADC Regional Fund for Water Infrastructure and Basic Sanitation and indicators which are presented as Appendix II of these ToR.) but remain sufficiently broad enough to attract other potential funders to the project.

(ii) Generate and present sufficient information (including technical concepts, financial and institutional arrangements) to enable the project partners in Zambia and Zimbabwe to enter into a formal agreement for the project.

. The minimum requirement is that:

- The technical scope of the project shall be specified.
- The financing mechanisms (particularly MS contributions) shall be clarified.
- The steering mechanisms as well as tasks and responsibilities of the project partners during project construction shall be clarified.
- An institutional arrangement for the implementation of the project, post the construction phase, shall be defined.

(iii) Generate and present sufficient information that allows a formal financing agreement to be reached between a potential funder and the project partners in Zambia and Zimbabwe.

The information base must be sufficient in order to prove the feasibility and sustainability of the project and to make a formal financing agreement between the funder and the project partners in Zambia and Zimbabwe possible. The preferable technical and institutional measures for the proposed project must be clear enough to allow terms of references for a detailed design study to be prepared.

The Consultant shall provide all services necessary for the achievement of the objectives of the requested study. Taking account of the present level of information, the consultancy services will comprise:

- Preparatory works and information collation (Phase 1: Inception phase)
- Conceptual project planning (Phase 2: Pre-feasibility)
- Preliminary design and selection of project measures (Phase 3: Feasibility)

4 Scope of work

4.1 Tasks

4.1.1 Preparatory works (Phase 1: Inception phase)

The purpose of this project phase is to familiarise the consultant with the prevailing situation and baseline regarding the project. The consultant is expected to review available documentation and undertake an initial visit to the project area before preparing a detailed Inception Report. The **Inception Report** shall be informed by the review of the below mentioned issues and shall contain a detailed methodology for carrying out the assignment and the work plan for implementation of the subsequent phases of the consultancy services.

Tasks:

1. Assess and give an overview of the current status of existing WASH infrastructure on either side of the border.

2. Identify ñquick winsò being the existing service delivery systems and infrastructure that can be utilised jointly without the need for a detailed feasibility study and/or more detailed design. The consultant should also recommend how best this can be done.

3. Collect and review all available information and define more clearly the gaps that need to be plugged by the proposed feasibility study.

4. Review available physical planning issues for the towns and how these may affect the positioning and size of any proposed water supply and sanitation networks. The issue of land rights and jurisdictions as they relate to servitudes need to be clearly elaborated.

5. Identify cross border issues likely to affect the transfer of treated water and/or sewage across the border.

6. Assess the cross sectoral collaboration at the border including but not limited to energy supply, immigration issues, ownership and use of critical infrastructure, e.g., bridges, etc.

7. Assess the project linkages with the SADC Transport Corridors Initiative and the corridor related developments especially how WASH institutions can (or should be) linked with those institutions responsible for corridor and/or border activities.

8. Assessment population scenarios needed to estimate water demand in the selected project area and critical sub areas considering the need of resident, transit and surrounding population

9. Assess the availability of data and source documents relevant for water supply and sanitation system design in Chirundu (maps, tables, reports, geological profiles, etc.).

10. Assess and review relevant information on concepts and preliminary designs for proposed water and sanitation related developments for Chirundu.

11. Review the legal and institutional arrangements for WASH service delivery on either side of the border and assess how these may impact on a joint project.

12. Clearly define, in consultation with the stakeholders, the planning horizon for the proposed project clearly defining the base year as well as short, medium and long term periods for the project. All subsequent analysis is to be based on the agreed planning horizon.

An elaboration of the issues affecting the proposed project is presented in Appendix I of these ToR.

4.1.2 Conceptual project planning (Phase2: Pre-feasibility)

The purpose of the conceptual project planning phase is to prepare a detailed baseline of the project area and make projections over the agreed planning horizon. The consultant is expected to collect and process information that is required in order to allow the project partners to achieve objectives (i) and (ii) of the study. For this, the consultant shall:

- collect more profound information in order to justify financing of the Chirundu project,
- develop a medium and long term concept for making available adequate water supply and improved sanitation infrastructure for the Chirundu towns,
- outline the technical and institutional concept for the project implementation and operation,
- develop a concept for the financial arrangements between Zambia and Zimbabwe for the Chirundu project.
- investigate the technical alternatives identified during the preparatory phase of the project and convert these into project OPTIONS for further analysis.

The consultant shall document results and findings from the conceptual project planning phase in a conceptual design report to be delivered as **The Pre-Feasibility Report (PFR)**. The PFR shall use findings of the socio-economic survey and have as main appendices detailed institutional and technical analysis reports.

Institutional Tasks

13. Describe the existing institutional arrangements for the operation of water supply and sanitation systems for both towns and document the current experiences and challenges encountered. Analyse the possible synergies and potential incongruences that may exist and propose any solutions to mitigate such differences where these exist.

14. Determine number, qualification and experience of existing staff for water supply and sanitation operations in the Chirundu towns. Pass professional judgement on how the staff establishment can or cannot cope with a new joint project. Suggest the appropriate capacity building measures necessary to improve service delivery in both towns.

15. Investigate available equipment and tools and its condition to operate water supply and sanitation services in the Chirundu towns.

16. Suggest and discuss with project partners suitable institutional arrangements for the project implementation, operation and maintenance, including the distribution of responsibilities among the stakeholders and cost sharing for the project.

17. Identify institutional bottlenecks and risks that are likely to be encountered in implementing a joint project and recommend possible mitigation strategies.

18. Identify and propose, accompanying technical assistance measures for the project that are suitable and required to assist the project partners in implementing the infrastructure project as well as improving their services and performance and their relation with the served population.

19. Suggest institutional options for the proposed technical improvement of sanitation practices.

20. Review the role and working relations that para-national water agencies in the Zambezi basin such as the Zambezi River Basin Commission (ZAMCOM), the Zambezi River Authority (ZRA) and the Joint Operations Technical Committee (JOTC) will, or should, have within the proposed project.

21. Identify and elaborate on the likely roles that affected non-water sector institutions such as transport, tourism, immigration, wildlife and agriculture will play in the proposed project.

22. Specify and elaborate on the necessary shared watercourse notification processes and requirements that need to be complied with before and during project implementation.

Technical, financial and planning Tasks

23. Assess the water availability against projected demand estimates for both towns in relation to climate change and climate variability scenarios clearly identifying the thresholds and timelines at which water availability becomes critical.

24. Assess the options for water abstraction being proposed by both towns and recommend the best approach to abstracting water from the Zambezi River. Clearly identify the critical issues that must be considered if costs of abstraction and subsequent treatment are to be

kept to a minimum. Suggest any innovative solutions to water abstraction applicable to the area.

25. Evaluate the existing water consumption patterns for both towns and calculate medium-term and long-term water demand for different scenarios such as high/medium/low population growth and; high/medium/low use of drinking water for households and for other purposes (institutional, commercial, wild life, etc.). The consultant shall include different scenarios depending on the type of house connection (e.g. stand posts, water kiosks, yard connection) and the anticipated developments in the towns.

26. Review the existing water supply augmentation plans for both Chirundu towns in line with the identified potential water abstraction systems and make recommendations on the most environmentally sustainable, economically sound and cost effective plan for water supply development for both towns.

27. Identify and suggest possible water saving and water demand management measures that can be applied in service delivery in both towns.

28. Identify and specify the additional hydrogeological and geological investigations that are required for subsequent project development especially considering the use of on-site sanitation systems.

29. Describe current sanitation technologies in use and approximate coverage rate. Identify and suggest possible sanitation options for the project area. Pay special attention to faecal sludge management options at the household and community level including value creation opportunities for such. Estimate approximate costs for the improvement of sanitation services.

30. Investigate and describe the operation of the existing water supply system (water balance by supply areas, operation costs, NRW (non-revenue water) and collection efficiencies.

31. Investigate potential risks for the water supply system, e.g., pollution from sewage disposal, damage by wild animals, etc., and suggest possible mitigation measures to minimise such risks.

32. Execute an initial environmental examination (IEE) for the project that shall identify environmental impacts and that further defines the scope for an EIA.

33. Execute an initial climate impact examination (ICIE) and climate proofing for the project that shall identify the impacts of the project on climate change and the potential of the project to mitigate the effects of climate change and evaluate for all proposed technical alternatives the vulnerability of the future service by climate change. The scope for a comprehensive climate impact assessment shall be prepared for the feasibility phase

34. Propose at the minimum three possible water supply and sanitation service delivery options based on the collected and prepared financial, technical and socio-economic information. Possible options should be those which serve the greatest number of people possible, have low operation and maintenance costs as well as minimal impacts on the environment. For the proposed options clearly analyse:

    a. The options for water abstraction that best serve both towns.

b. The options for water treatment that best serve both towns.

c. The water storage and distribution systems that best serve both towns.

35. Estimate the required technical infrastructure for the different water supply and sanitation options paying particular attention to:

    a. Estimation of investment costs and economic analysis (net present value, internal rate of return and key economic indicators as relevant),

    b. Estimation of operation and maintenance costs ;

    c. Propose an operational and maintenance plan for identified "quick wins" infrastructure solutions.

    d. Analyse the impact on the water tariff in either town considering and building on the findings of the socio-economic assessment [especially the willingness to pay and ability to pay (WTP & ATP)] in the two towns.

36. From the set of possible water supply options, and on the basis of agreed criteria with the stakeholders, select the option that best serves the two towns clearly elaborating how the decision has been reached. This option shall be used in all subsequent analysis.

37. Investigate land and property issues for the suggested construction of water and sanitation infrastructure, especially as they relate to future town expansions, wildlife conservation areas and movement corridors.

38. Screen the legal situation in both countries related to service provider (Water Utility), transboundary infrastructure and the property rights for construction. Elaborate a legally feasible proposal for the project implementation.

39. Identify technical and economic as well as other relevant risks involved in the project and recommend possible mitigation strategies.

4.1.3 Preliminary design of project measures (Phase 3: Feasibility)

During this phase the project configuration shall be specified. A standalone feasibility report (FR) that summarises the results from all study phases is to be delivered. The consultant shall supply all relevant schematics, diagrams, calculations, layouts and other supporting materials as Annexes to the FR.

Technical and planning Tasks

40. Carry out geotechnical, hydrogeological and hydrological calculations for proposed water infrastructure sites as suggested in the pre-feasibility phase. This also includes an in-depth analysis of available water quality.

41. Execute the required technical calculations for the dimensioning of the suggested water infrastructure (result from phase 2).

42. Prepare the preliminary designs of the suggested water and sanitation infrastructure and prepare design drawings of appropriate scales. Attach as necessary all relevant information to justify the designs. This should include but not limited to:

a. The design report showing the calculations used in sizing the system components.
b. Any compilation of existing Permits and Licences that have a bearing on the implementation of the Water and sanitation System.
c. A review of any previous studies and reports relating to the Water and sanitation System.
d. A summary description of the Water and sanitation System and operations.
e. The planning permission (where such has been issued and/or is required).

43. Prepare network flow diagrams for the proposed water supply and sanitation systems for the two towns showing the location and operational parameters for key installations such as transmission pipelines, storage facilities, and distribution points including public water kiosks, bulk meters, pump stations, control and pressure valves, etc.

44. Prepare an implementation concept and plan showing project administration, consulting services for project implementation, tendering, contracting and implementation of works and the overall implementation schedule.

Financial Tasks

45. Estimate the investment cost (foreign exchange and local cost including physical and price contingencies as well as allowance for consulting services, separate indication of tax, local VAT etc.), preparation of a time-phased investment schedule including replacement cost.

46. Estimate the operation and maintenance costs covering the full planning horizon.

47. Calculate the full cost (considering investment/reinvestment, depreciation and O&M cost over the planning horizon stating the assumptions underpinning the estimates.

48. Assessment of the present and propose tariff structures for water and sanitation services and their suitability to cover maintenance, operation and regular minor replacement costs of the project.

49. Assessment of the billing/collection system and its current efficiency; suggest improvement measures if required.

50. Cash flow forecast (20 years) relying on present and proposed tariff systems with realistic collection rates.

Institutional tasks

51. Investigate and review the existing institutional arrangements and cooperation framework for the proposed project.

52. Propose, in consultation with the member state representatives, appropriate institutional arrangements and cooperation frameworks for implementing the proposed project paying special to limit the creation of new institutions unless this is absolutely necessary and unavoidable. The proposal should consider:

    a. The Memoranda of Understanding (MoUs) for the agreed cooperation framework.

b. The cooperating institutions (with their roles and responsibilities clearly spelt out).

c. The project governance/steering structure.

d. The terms and conditions for financial contributions of the member states to the O&M of agreed institutions.

53. Outline accompanying technical assistance measures for the project that are suitable to assist the project partners in implementing the infrastructure project as well as improving their services and performance and their relation with the served population; estimate costs for accompanying measures.

Prepare the ToR for detailed engineering design

54. After completing and getting approval from the member states for all the documents produced in line with these ToRs, the consultant should proceed to prepare the terms of reference for a detailed engineering design for the project.

5 Organisation of the study

5.1 Project steering

The project partners shall constitute a Project Steering Committee (PSC) to which the consultant shall present key deliverables for inputs during the course of the assignment. All contractual obligations shall be with GIZ.

5.2 Working Schedule

The consultancy services outlined in Section 4 (ñScope of Workò) of the present ToR shall be for a level of effort not exceeding 175 man-days and a period no longer than 6 months. The work shall be scheduled tentatively within the limits of the timelines suggested below:

- Submission of the Inception Report latest 1 MONTH after start of activities
- Submission of the Pre-Feasibility Report latest 4 MONTHS after start of activities
- Submission of the costed designs for the ñquick winsò interventions latest 1 MONTH after the submission of the Pre-Feasibility Report.
- Submission of the Feasibility Study Report latest 1 MONTH after receiving comments on the Pre-Feasibility Report.

5.3 Logistics

The bidder for the consultancy services is invited to give details on the envisaged logistical set-up for the execution of the services in their technical offer. Office space will be provided by the project partners in the project area. The consultant shall organise all required logistics including accommodation and transport to and from the project site on their own. No more than five trips from the home base to the field are anticipated.

5.4 Contribution of partners

The Zambian and Zimbabwean partners will provide free of charge all existing information, data, reports and maps and will assist the consultant in obtaining other relevant information and materials from the competent institutions and authorities as far as possible. However, it is the duty of the consultant to check availability, quality and suitability of this information.

All the documents used by the consultant must be returned to the project partners upon completion of the assignment. Due provision shall be made in the proposal in case the consultant has to procure maps, aerial photographs, meteorological, hydrological and geological data, etc. necessary to carry out the services at his own cost.

5.5 Proposed staff input

The consultant has to provide the necessary staff (administrative/technical, foreign/local personnel), which is required for the execution of his services. In order to enhance the local technical skill and experience, cooperation with local specialists is highly recommended.

It is proposed to carry out the Prefeasibility/Feasibility Study with at least the following key experts:

- *Team leader*: Expert in water engineering and the design of the drinking water supply and sanitation schemes with knowledge of cross-border and trans-boundary projects.
- *Hydrological Expert conversant with climate change issues*
- *Hydrogeological* expert.
- *Economist/financial* expert.
- *Legal/Institutional expert* with experience on bi-lateral country cooperation.

5.5.1 Team Leader

The assignment team is to be led by a Team Leader (TL) who is expected to be present on site for at least 50% of the time during all the activities for the elaboration of the study phases. The TL shall be the liaison between the Consultant and the Client (and stakeholders) on the project, and other consultants on the feasibility study. The TL will also be responsible for the record of proceedings for meetings between the Consultant and the Client and/or project meetings to be agreed in the Contract. The TL is expected to be a ***water development and planning expert (up to 80 days)*** satisfying all of the following requirements:

Qualification:

- At least Master's Degree in Water Resources Engineering/ Management, Civil Engineering or a related field.
- Relevant experience from similar water supply and sanitation projects in the past 5 years.

General professional experience:

- At least 10 yearsôexperience in transboundary water resources planning, with special bias towards cross border collaboration in service delivery.
- At least 5 yearsôexperience in water supply and sanitation systems planning and design including donor funded WASH sector projects.

- Minimum of 3 years working experience in the SADC Region.

Specific professional experience:

- Experience from the elaboration of other feasibility studies for international donor agencies in at least 3 projects.
- Proven international experience of at least 5 years.
- Very good knowledge of project preparation procedures and SADC-ICP cooperation;
- Experience in the design, implementation, and assessment of WASH infrastructure.
- General experience working in Zambia and/or Zimbabwe, and good understanding of the local social context will an added advantage.

Language skills:

- Excellent written and spoken English, as well as excellent communication skills.
- Basic understanding of local language, especially Tonga, will be an added advantage.

5.5.2 Hydrologist

The core assignment team is to contain a water resources analysist who is expected to be a *Hydrologist (up to 25 days)* satisfying all of the following requirements:

Qualification:

- At least a Master's Degree in Hydrology, Civil Engineering or a related field.

General professional experience:

- At least 10 yearsôexperience water resources assessments.
- At least 5 yearsôexperience in integrated water resources management (IWRM).
- At least 3 years' experience with donor funded projects.
- Minimum of 2 years working experience in the SADC Region.

Specific professional experience:

- Minimum 5 years working experience in the water sector.
- Very good knowledge of water resource assessment methodologies including both field and office based techniques.
- General experience working in the SADC region, with good understanding of the local hydrology and climate (including climate change and variability) settings.
- Experience with working in Zambia and/or Zimbabwe will be an added advantage

Language skills:

- Excellent technical report writing and presentation skills in English.
- Ability to communicate complex technical concepts in local languages, especially Tonga, will be an added advantage.

5.5.3 Hydrogeologist

The core assignment team is to contain a *Hydrogeologist (up to 15 days)* satisfying all of the following requirements:

Qualification:

- At least a Master's Degree in Hydrogeology, Civil Engineering or a related field.

General professional experience:

- At least 10 yearsôexperience hydrogeological assessments.
- At least 5 yearsôexperience in groundwater investigations and development.
- At least 3 years' experience in groundwater management.
- Minimum of 2 years working experience in the SADC Region.

Specific professional experience:

- Minimum 5 years working experience in the water sector.
- Very good knowledge of conjunctive use of surface and groundwater resources.
- Good understanding of the hydrogeological settings in river flood plains and escapement or similar environments.
- Modelling of groundwater flow and quality in composite geological formations will be an added advantage.

Language skills:

- Excellent technical report writing and presentation skills in English.

5.5.4 Economist/financial expert

The socio-economic assessment is to be led by an *Economist/financial expert (up to 30 days)* satisfying all of the following requirements:

Qualification:

- At least Master's Degree in Economics/Financial Management, Business Development or a related field.

General professional experience:

- At least 10 yearsôexperience in transboundary water resources planning, with special bias towards cross border collaboration in service delivery.
- At least 5 yearsôexperience in water supply and sanitation systems planning and financial analysis.
- Minimum of 3 years working experience in the SADC Region.
- Knowledge of bankability criteria applied in development projects.
- Experience with ICP funding mechanisms will be an added advantage.

Specific professional experience:

- Minimum 5 years working experience in the water, sanitation, environment and related sectors in the SADC region.
- Very good knowledge of project preparation procedures and SADC-ICP cooperation;
- Good knowledge of DFI funding criteria and financing requirements.
- Experience with working in Zambia and/or Zimbabwe will be an added advantage

Language skills:

- Excellent written and spoken English, as well as excellent communication skills.

- Basic understanding of local language, especially Tonga, will be an added advantage.

5.5.5 Legal/Institutional expert

The legal and institutional aspects of the assignment are to be led by a ***Legal/Institutional expert (up to 25 days)*** satisfying all of the following requirements:

Qualification:

- At least Bachelor's Degree in Law/Legal, Development Studies or a related field.

General professional experience:

- At least 10 years with bi-lateral country collaboration, with special bias towards water and sanitation service delivery.
- Minimum of 3 years working experience in the SADC Region.
- Knowledge of the SADC Protocol on Shared Watercourses.
- Knowledge of the SADC Transport Corridors and Industrialisation Initiative.

Specific professional experience:

- Demonstrated knowledge of the water sharing agreements and other sector cooperation arrangements that the two countries are party to.
- Good knowledge of the Zambezi Watercourse (ZAMCOM) Agreement.
- Very good knowledge of the legal systems and institutional arrangements in Zambia and Zimbabwe.
- General experience working in Zambia and/or Zimbabwe, with good understanding of local government and public sector operations in both countries will be an added advantage

Language skills:

- Excellent written and spoken English, as well as excellent communication skills.
- Good understanding of local language and customs, especially of the Tonga people on either side of the Zambezi, will be an added advantage.

5.5.6 Other experts and support staff

The specified experts are to be understood as the minimum expertise required to successfully undertake the assignment. The consultant is expected to add extra and/or multi-skilled staff (e.g. for the preparation of maps, implementation of surveys, institutional analysis, legal advice), as he deems necessary and appropriate to accomplish the task based on his professional judgement.

5.6 Reporting

All reports shall be submitted in English. All annexes and appendices which will be presented as separate documents are to be correctly referenced. All comments received during the development of the feasibility report are to be properly documented for future references. Reporting shall be performed in accordance with the approved consultant's schedule and comprise at least the following reports (in Hard- and Softcopy):

1. Inception Report (4 copies to Zambian partners, 4 copies to Zimbabwean partners, 2 copies to SADC, 2 copies to identified project funder and 1 copy to GIZ [All copies in English])

2. Pre-Feasibility Report (4 copies to Zambian partners, 4 copies to Zimbabwean partners, 2 copies to SADC and 1 copy to GIZ [All copies in English]).

3. Feasibility Study Report (4 copies to Zambian partners, 4 copies to Zimbabwean partners, 2 copies to SADC and 1 copy to GIZ [All copies in English])

All documents and reports will be submitted to GIZ who will share with the Zambian and Zimbabwean project coordinators and SADC Water Division for comments before finalisation.

All reports shall contain an executive summary and shall be prepared in DIN A4 format. A separate volume in DIN A3 format can be prepared containing plans and drawings. In addition to these hardcopies, all documents (reports and drawings) have to be provided also in digital format (MS Word, MS Excel and pdf-format, drawings in pdf-format) for the Zambian and Zimbabwean project partners, SADC and for the financing partner.

5.7 Backstopping and quality control

The home office of the Consultant shall maintain continuous support to the team in the project area. Before submitting any report, the home office is obliged to carefully screen the respective documents to ensure the required quality. The consultant has to describe in his proposal, how he intends to secure the required quality for the preparation of the study, and which of his staff will be responsible for backstopping and quality control and how quality control will be performed.

6 Appendices

Appendix I: Description of the Project Area.

Appendix II: Funding criteria for the regional fund for water infrastructure