

Terms of reference (ToRs) for the procurement of services

Revision of the CPHEEO Water Supply Manual	Project number/ cost centre: 16.2077.2-001.00
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0. List of abbreviations

CPHEEO	Central Public Health and Environmental Engineering Organisation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MoHUA	Ministry of Housing and Urban Affairs
SUD-SC	Sustainable Urban Development – Smart Cities (SUD-SC)
ToR	Terms of Reference

1. Context

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

GIZ is a federal enterprise, which supports the Government of the Federal Republic of Germany in achieving its objectives in the field of international cooperation for sustainable development. The German Government has been cooperating with India for over 60 years by offering its technical expertise through GIZ in areas that are national priorities. With a global footprint in over 130 countries, GIZ leverages its regional and technical expertise for local innovation. To address India's need for sustainable and inclusive growth, in partnership with stakeholders, GIZ's key focal areas are:

- Energy (renewable energy and energy efficiency)
- Environmental Policy, Preservation and Sustainable Use of Natural Resources (sustainable urban and industrial development, natural resource management, climate change adaptation, biodiversity etc.)
- Sustainable Economic Development (rural finance, social security systems, small and medium enterprises)

Sustainable Urban Development – Smart Cities (SUD-SC) Project

The GIZ technical cooperation project Sustainable Urban Development – Smart Cities (SUD-SC) (Project Duration : 2018 - 2021) is being jointly implemented by the GIZ and MoHUA for supporting the Government of India, Tamil Nadu, Kerala and Odisha. The objective of the SUD-SC Project is 'Responsible National, State and local institutions have applied concepts for sustainable urban development for the provision of urban basic services and housing in selected smart cities'. The project aims to support the Ministry and the partner states in the areas of urban basic services (i.e. water supply, wastewater, stormwater and solid waste management), housing and spatial planning and Sustainable Development Goals (SDGs). The key activities under the project include policy-level support, training and capacity building and sector-specific studies / projects based on the partner's needs.

Central Public Health and Environmental Engineering Organisation (CPHEEO)

The CPHEEO is the technical wing of the MoHUA, Government of India, and assists the Ministry in the matters related to urban water supply, storm water drainage and sanitation including solid waste management in the country. CPHEEO acts as an Advisory body at Central level to advise all State/UT Agencies and Urban Local Bodies (ULBs) in planning, designing, implementation / construction, operation & maintenance of urban water supply, sanitation and solid waste management projects and helps to adopt latest technologies in these sub-sectors. The preparation of the Manuals in the field of Public Health / Environmental Engineering is one of the roles of CPHEEO. The Manual on Water Supply and Treatment, Manual on Sewerage and Sewage Treatment, Manual on Municipal Solid Waste Management and Manual on Storm Water Drainage Systems have been published by CPHEEO, which are used as basic documents by the State Public Health Engineering Departments, State Water Boards, Urban Local Bodies in their functions of planning, designing, construction and maintenance of water supply and sanitation schemes including solid waste management.

About the Manual

Present 'Manual on Water Supply and Treatment' and the 'Manual on Operation and Maintenance of Water Supply Systems' was published in the year 1999 and 2005 respectively. The Government of India is planning for the next edition of the Manual for the benefit of Water Supply Departments / Boards, Urban Local Bodies, Public Health Engineers, Consultants, Educational Institutions, etc. The CPHEEO, MoHUA and GIZ are collaborating jointly for revising the Manual. GIZ is supporting CPHEEO / MoHUA as Technical Knowledge Partner in

revising and updating the Manual. The revision of the Manual is to be undertaken by CPHEEO, MoHUA and GIZ through a series of processes i.e. constitution of Expert Committee, convening meetings of the Expert Committee, exposure visits / study tours to best practices of water supply facilities, national stakeholder consultation workshop, a national event for the public release of the manual, printing and dispatch of the Manual to the States/ ULBs. The Manual is envisaged to be finalised by the end of 2021.

An Expert Committee and Working Groups (smaller groups carved out of Expert Committee to support specific sections of the Manual) shall be constituted by MoHUA to guide and advice the Technical Knowledge Partner (GIZ) for the drafting, editing, and finalization of the Manual. The members of the Expert Committee shall comprise of Experts from Central Government, State Government, Academic & Research Institutes, etc.

Objective of the Services to be performed by the Contractor

The contractor shall be responsible for updating, revising (the contents of the existing water supply manual), preparation and finalisation (based on the inputs provided by the Expert Committee) of the Manual on Water Supply and Treatment, 1999, Government of India and the Manual on Operation and Maintenance of Water Supply Systems, 2005, Government of India (hereinafter both these manuals are referred to as 'The Manual'). The updating and revision of the Manual is proposed to be redeveloped in three parts i.e. Engineering (Part A), Operation & Maintenance (Part B) and Management (Part C).

The revision of the Manual deals with multi-disciplinary topics and requires diverse technical expertise. The Water Supply Manual is a comprehensive sourcebook for the urban water sector in the country, the Manual revision shall include useful technical and engineering aspects related to infrastructure planning, design, construction, O&M, management and innovations in urban water supply sector. It will also include the International best practices in water supply for adapting in the Indian scenario and conditions. The main purpose of the updating and revision of the Manual is to provide technical guidance to professionals and stakeholders currently involved in planning, design, operation & maintenance and management of the urban water supply systems in Indian cities.

2. Tasks to be performed by the contractor

The contractor is responsible for providing the following services (but not limited to) :

- (i) Content development : Prepare / update (inclusion & deletion) / revise (as appropriate) the contents / chapters / sections of the entire water supply Manual (i.e. in all three areas i.e. Engineering, Operation & Maintenance and Management) as per the advise given by the Expert Committee / CPHEEO. The content shall be presented before the Expert Committee/CPHEEO before to conclude. The Manual shall appropriately consider planning, designing and implementing new infrastructure and rehabilitating / retrofitting of existing infrastructure to improve the service levels as per the Service Level Benchmarks notified by the Government of India.
- (ii) Engineering (Part A) and O&M (Part B) part of the Manual shall be prepared as a revision of the existing Manual on Water Supply and Treatment, 1999 and Manual on Operation and Maintenance of Water Supply Systems, 2005 respectively with necessary additions and updates of information. Management (Part C) Part of the Manual must be prepared as a new manual. However, contents relevant to the management of Water Supply in existing Manuals on Water Supply (1999 & 2005) must

be included in the new manual part with necessary updates, as per the suggestions of the Expert Committee / CPHEEO.

- (iii) Thoroughly examine (review and analyse) the existing water supply Manual (1999 & 2005) and other water-related guidelines / advisories / policies published by Government of India, identify gaps and suggest areas for improvement and prepare table of contents for all three parts of the Manual (Part A/B/C) and present the same before the Expert Committee/ CPHEEO for approval. On approval, prepare the draft of various chapters / contents of the Manual as per the advice of the Expert Committee /CPHEEO.
- (iv) The revision / updating / preparation of all the three Parts (Part A / B / C) of the Manual shall be taken simultaneously to ensure timely completion of the Manual.
- (v) Type /edit / revise / draft / update the contents with appropriate chapterisation of all the three parts (A / B / C) of the Manual and present the same before the Expert Committee for their deliberation, inputs / review and acceptance. All inputs / suggestions by the Expert Committee shall be incorporated (compliance by the contractor) in the Manual and again presented to the Expert Committee. The process shall continue until the same is accepted / endorsed by the Expert Committee / CPHEEO. Regarding the contents of the Manual, the decision of Expert Committee and CPHEEO shall be final and binding on the contractor to incorporate the same in the Manual.
- (vi) To ensure the Manual / Chapters (part / whole) is delivered to the level of satisfaction of the Expert Committee, the Expert Committee shall have the right to accept or omit any / all of the contents included in any draft chapters and direct the contractor to redraft the chapters or whole of the Manual. The contractor will be bound to carry out the suggestions of Expert Committee / CPHEEO / GIZ from time to time. The Chairman of the Expert Committee will be the final authority for approval of structure / nomenclature of the chapters and final contents of the Manual. The contractor shall abide by it. Any other issues / contents may be discussed and incorporated in the Manual with the prior approval of Chairman of the Expert Committee / CPHEEO. No technical dispute shall be raised by the contractor and entertained by the Expert Committee /CPHEEO / GIZ.
- (vii) The contractor shall nominate a Team Leader and a Deputy Team Leader for regular interaction with CPHEEO and GIZ regarding the revision of the Manual. The Team Leader or Deputy Team Leader shall be positioned (full-time) in CPHEEO's office for regular coordination with CPHEEO, for receiving their inputs and ensuring timely completion of the Manual. One support staff shall also be provided workspace in CPHEEO's office for assisting the Team Leader or deputy Team Leader, depending upon the availability of workstation at CPHEEO.
- (viii) To appoint multi-disciplinary experts (with requisite qualification and experience in the field of urban water supply) and supporting staff to draft the contents of the chapters of the Manual. Arrange the technical resources for writing the content of the Manual.
- (ix) Prior to the meetings of the Expert Committee : Draft the contents of the chapters and circulate (ensuring it has reached to all the members of the Expert committee) the same well in advance (at least ten days before the meeting of the Expert Committee) to the Expert committee so that the members could go through the contents, give comments and prepare for a thorough discussion on the contents during the meetings. Further, the compilation of all the comments received from members well in advance of the meeting

and present the same before the Expert Committee to make discussions more fruitful. Hard copies of the content may also be circulated to the members of the Expert Committee, if desired, well in advance prior to the meeting of the Expert Committee.

- (x) During the meetings of the Expert Committee: Participate in all meetings of the Expert committee, working groups, workshops and other meetings (as deemed appropriate by Expert Committee / CPHEEO) to enrich the discussion regarding the revision of the Manual. Shall also be responsible for preparation of the minutes of the Expert committee / Working Group meetings and coordinate for its approval by CPHEEO / Chairman of the Expert Committee, circulate the same to members within three days of the meeting held.
- (xi) Post the meetings of the Expert Committee : Incorporate the suggestions / inputs received by the members of the Expert committee to the satisfaction of the Committee. Circulate the compliance to the comments / inputs / improved / revised contents to all the members of the Expert Committee within two weeks from the date of the meeting held.
- (xii) To be in regular contact with Expert Committee members / CPHEEO and seek their suggestions/ views / inputs etc. and any further information, if required.
- (xiii) To conduct desk research, review and explore various methods / technologies / best practices available across India and globally for planning, implementation, operation & maintenance and effective management of urban water supply and include in the Manual suiting to the Indian conditions.
- (xiv) The revised Manual shall be technically sound, feasible for Indian context (practical & realistic), user friendly and easily understandable for the implementing agencies and field engineers with suitable worked out examples
- (xv) The Engineering part of the Manual shall incorporate the technological innovations and advanced engineering aspects viz. Integrated urban water resource management, water balance plan, decentralised planning, design and implementation of 24x7 water supply based on MIS & GIS mapping and dynamic hydraulic modelling (using software), regional water supply scheme (Urban & Rural), non-revenue water, water loss management, leak detection, ICT based smart solutions and automation, water use efficiency in plumbing fixtures, latest water treatment technologies, desalination technologies, specific treatment for iron, fluoride & arsenic removal, advanced technologies (micro-tunnelling, rehabilitation of existing pipelines, etc.), latest pipe materials, smart meters and appurtenances, etc. and any others aspects as advised by the Expert Committee/ CPHEEO.
- (xvi) The O&M part of the Manual shall cover, O&M aspects of various components of water supply systems, water quality surveillance & monitoring, SCADA, water audit and leakage control, MIS, energy audit and conservation of energy, O&M budget preparation, public Awareness, safety practices, etc. and any others aspects as advised by the Expert Committee/ CPHEEO.
- (xvii) The management part of the Manual shall cover asset management, financial sustainability & water tariffs, billing, PPP, innovative contracting models, Institutional aspects, regulations & reforms, HRD & capacity building measures, etc., explore the possibility of PPP models in water supply and treatment systems and suggest best

practices across the world, suggest model guidelines / schedule for capacity building of various O&M personnel for their training and professional up-gradation of field engineers, etc. and any others aspects as advised by the Expert Committee/ CPHEEO.

- (xviii) The prepared Manual will be used countrywide in India, therefore, contents of the Manual will have to be prepared considering conditions prevailing in different parts of India. The Manual shall include sections relevant to diverse geographical locations (e.g. hilly terrains, coastal areas, etc.), climatic conditions (e.g. extreme cold weathers, etc.), geological conditions (e.g. rocky terrain, high groundwater table etc.) and highly dense populated areas (e.g. old town areas, slum areas etc.). These variations shall be considered while preparing the Manual to ensure the suitability of use of the Manual in various conditions.
- (xix) The Manual shall provide appropriate attention / solutions for disaster-prone areas / situations (e.g. high seismic zones, cyclone risk zones, epidemics), water conservation, climate-resilient approaches and mainstream gender balance approaches as appropriate in the Manual.
- (xx) The Manual shall properly accommodate the present situation and incorporate expected trends (including technology and management regimes) in the near future. The Manual should at least cover the needs resulting from development in the next 10 to 15 years.
- (xxi) The Manual shall consider the related water / water supply policies of the Government of India and State Governments.
- (xxii) Make a presentation of the complete draft Manual at a National stakeholder consultation workshop. The comments received during the workshop shall be incorporated in the draft final version of the Manual to the satisfaction of the Expert Committee.
- (xxiii) Final Editorial & Designing work : Editing and proof checking of the entire Manual i.e. correcting any errors in the text including grammatical, linguistic and spelling mistakes, suggest any improvements in clarity of expression, editing various texts produced to a consistent editorial style for the Manual. Professionally designing the Manual including format / style, layout including typesetting, styling, colour, placement of photos/logo, etc. with the approval of the CPHEEO. Design and specifications for the printing of the Manual will be decided in consultation with CPHEEO / GIZ. Services for the Manual design should include print-ready, and web optimized PDF files of finished Manual and open application files on request. The Manual should adhere to CPHEEO / GIZ Corporate guidelines, which shall be shared in due time.
- (xxiv) The contractor shall submit 5 sets of soft copies (pen drive / DVD) and hard copies (in colour) of the Draft Manual. Further shall submit 10 sets of soft copies (editable and print-ready version, pen drive / DVD) and 10 sets of hard copies (in colour) of the approved Final Manual complete in all respect with all reports, drawings, sketches, etc.
- (xxv) Copyright of the Manual shall be with CPHEEO / MoHUA. The contractor shall not publish, print, share or circulate any part or full text of the Manual to the third party at any point of time without written permission of CPHEEO, otherwise necessary legal action shall be taken by the Government of India. Shall strictly abide by the confidentiality clause of the contract.

The scope of work shall also include all the items which are not specifically mentioned above but which are reasonably implied for the satisfactory achievement of the desired objective of the ToR.

Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term :

Sr. No.	Milestone	Deadline
1	Finalization of the Table of Contents of all the three parts of the Manual in consultation with the Expert Committee Contents drafted / Chapters completed for at least 50% of the total number of chapters of all three parts of the Manual to the satisfaction & approval of the Expert Committee	Six months after signing of the contract
2	Completion of the final draft of all the three parts of the Manual to the satisfaction & approval of the Expert Committee	Ten months after signing of the contract
3	Successful completion of the final Manual after incorporating the comments / inputs received during the national stakeholder consultation workshop (& from various States) and their compliance to the satisfaction and approval of the Expert Committee & MoHUA (including final editorial & designing work for print-ready Manual)	Twelve months after signing of the contract

Period of assignment: From 1st October 2020 until 30th November 2021.

Note :

- If the Contractor fails to meet the agreed delivery dates and deadlines, then GIZ is entitled, to demand a contractual penalty as specified in the General Terms of Contract

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

(1) Technical-methodological concept

(1.1) **Strategy:** The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1 & 2). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 2).

(1.2) The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

(1.3) The bidder is required to present and explain its approach to **steering** the measures with the project partners.

(1.4) The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter 2 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 2.

(1.5) The bidder is required to describe its contribution to knowledge management for the partner and GIZ (**learning and innovation**).

(1.6) Project management of the contractor

The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor shall be responsible for selecting and steering the experts assigned to perform the advisory tasks
- The contractor shall make available equipment and supplies (consumables) and assumes the associated operating and administrative costs
- The contractor shall manage costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ
- The contractor shall report regularly to GIZ in accordance with the ToR requirements

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

(1.7) Further (other specific) requirements

The bidder is required to explain its approach to bringing in the International and the latest know-how in the field of urban water supply.

In addition to the reports required by GIZ, the contractor submits the following reports:

- Inception report (within 10 days upon signing of the contract)
- Brief monthly progress reports (first week of every month) on the implementation status of the project

Kick-off meeting : Within a week upon signing of the contract, CPHEEO / GIZ will conduct a kick-off meeting with the Contractor. The Contractor (all consortium partners, Team Leader & Deputy Team Leader) will be asked to present a detailed work plan (road map), methodology and time schedule and get it approved from CPHEEO / GIZ before starting the commencement of services.

4. Personnel concept

Eligibility (pre-qualification) requirements and short-listing criteria for assessing the eligibility of Consulting firms :

Eligibility (pre-qualification) requirements :

I. Commercial assessment

- Legal status of Consulting firm (The bidder shall be legally registered entity in India; Government-owned organisations / institutes are also eligible to apply. In case of International firm, Lead partner shall be registered as per this condition)
- In case of bidding consortia – Declaration by consortium (Lead partner shall provide memorandum / contractual relationship between the partners)

- Average annual turnover for the last three financial years : at least 3000000 Euro
- Number of employees as at 31st Dec. of the previous year : at least 50 persons (firms not having an adequate number of personnel with a core expert team of water supply specialists should not apply)

In case of a bidding consortium, the Lead partner shall individually (fully) meet the commercial assessment criteria. International firms (not registered in India) are only eligible to participate through bidding consortium with the Lead partner registered in India or Government owned organisations / institutes. In case of a bidding consortium, the bidder must submit the following documents with the technical proposal viz. Name of Lead Partner (first party); Name of the firm with whom the consortium is formed and Letter from 2nd party accepting the terms of consortium (financial & technical). Subcontracting the assignment to different agency / outsourced agency is not allowed.

II. Technical assessment

(The technical assessment is only based on reference projects with a minimum commission value of 90000 Euro. The minimum commission value for reference projects shall only be applicable for A. Minimum requirements and not applicable to B. Weighted Criteria in the Grid for assessing the eligibility of consulting firms)

A. Minimum requirements

- At least 3 reference projects in the field of urban water supply and
- At least 3 reference projects in India in the last five years (*to be read as 'in the last five years' in the Grid for assessing eligibility of consulting firms*)

Reference projects = Consultancy projects (e.g. Detailed Project Report preparation, Project Management Consultancy, etc.) in the field of urban water supply

Experience of work / reference projects should be under a Central Govt. department / any State Govt. department / Urban Local Body / Central or State Govt. Undertakings / International financial institution / International development bank / Multilateral organisation / Bilateral organisation. Experience certificate obtained from any private agency / contractor shall not be considered.

Only completed projects shall be considered for technical assessment. Ongoing projects shall not be considered for technical assessment. In case of non-issuing of completion certificate, though project is completed, testimonial from the Implementing Agency may be enclosed.

In case of a bidding consortium, each partner of the consortium shall meet atleast 25% (and the lead partner at least 50%) out of the qualifying limit in the technical assessment criteria.

Bidders meeting the above Eligibility (pre-qualification) requirements shall be shortlisted based on the below criteria.

Short-listing criteria (only for procedures with pre-qualification) :

B. Weighted criteria

1. Technical Experience :

- a. Experience of preparing ten (10) DPRs (Detailed Project Reports) for comprehensive (water intake / treatment to distribution network) urban water supply schemes, serving population above 1 lakh
 - b. Experience of preparing DPRs / design & engineering of 24x7 urban water supply projects for two towns (in addition to the above mentioned ten DPRs) and Experience in preparation and implementation of one PPP project in water supply sector
 - c. Experience as Project Management Consultants (PMC) for implementation of comprehensive urban water supply projects in three towns
 - d. Experience of preparing / implementing three innovative projects (e.g. engineering, O&M and management i.e. non-revenue water, energy efficiency, desalination, GIS mapping for water infrastructure, dynamic hydraulic modelling etc.) in the field of urban water supply including experience in developing financial sustainability for large water utility and conducting capacity building programme for water utility
 - e. Experience of preparing three advisories / guidelines / policies / technical report/ technical manuals / handbooks or similar publication in the field of urban water supply for Government of India / State Government
2. Regional Experience :
- National Experience (consultancy projects in the field of urban water supply including conveyance, distribution, treatment technologies, O&M, etc) in five States in India viz. one project in a hilly town, one project in a coastal town and three projects in plains. International Experience (consultancy projects in the field of urban water supply including conveyance, distribution, treatment technologies, O&M, etc) in three foreign countries).
3. Experience of development projects (ODA Financed) :
- Experience of development projects in the field of urban water supply

Only consultancy projects (in the field of urban water supply) completed in the last five years (to be read as 'in the last five years' in the Grid for assessing eligibility of consulting firms) in India shall be considered for technical assessment.

The technical proposals of only the shortlisted bidders (minimum score of 500 points in the Grid for assessing the eligibility of consulting firms) shall be assessed (evaluated) based on the criteria mentioned in the Grid for the technical assessment of bids enclosed.

The shortlisted bidders (all consortium partners) shall be asked to make a technical presentation, which shall be a part of the technical assessment. The presentation shall be made by the Team Leader / Deputy Team Leader.

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

Team Leader (2.1)

Tasks of the team leader

- Overall responsibility for the tasks to be performed by the contractor (quality and deadlines). Service-delivery control.
- Responsible for drafting / reviewing the contents / chapters of the Manual before submitting the same to the Expert Committee for inputs
- Coordinating and ensuring communication with GIZ, CPHEEO and Expert Committee involved in the project. Participating in all meetings related to the Manual.
- Personnel management as well as planning and steering tasks and supporting experts
- Technical steering of the consultancy inputs
- Reviewing & providing technical inputs for ensuring completion of the tasks in a time-bound manner
- Providing specialist support for the on-site team by staff at company headquarters
- Regular reporting in accordance with requirements and deadlines

Qualifications of the team leader

- Education/training (2.1.1): University qualification (Master's degree) in Civil Engineering with specialization in Public Health Engineering / Environmental Engineering / Hydraulic Engineering
- Language (2.1.2): Good business language skills in English
- General professional experience (2.1.3): Overall 25 years of professional experience in the Urban Infrastructure sector
- Specific professional experience (2.1.4): 15 years in the urban water sector
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as project team leader or manager in a company / Government Department (e.g. retired senior level Engineer like Superintending Engineer or equivalent or above)
- Regional experience (2.1.6): 15 years of experience in projects in Asia, of which 10 years in projects in India
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects
- Other (2.1.8): Experience of working with Government of India on similar projects and documented evidence of publishing research papers in renowned Journals. Team Leader having Doctoral Degree in the field of Civil Engineering (Public Health / Environmental / Hydraulic Engineering) shall be preferred.

Deputy Team Leader (2.2)

Tasks of deputy team leader

- Work closely with the Team Leader and support him / her for the smooth progress of the tasks
- Support the Team Leader in content development (with special emphasis to appropriate writing style for ensuring user-friendly & easily understandable Manual for the field engineers) of the Manual as advised by the Expert Committee
- Serve as a back-up in Team Leader's absence i.e. should perform all duties of the Team Leader in his / her absence

Qualifications of deputy team leader

- Education/training (2.2.1): University qualification (Master's degree) in Civil Engineering with specialization in Public Health Engineering / Environmental Engineering / Hydraulic Engineering
- Language (2.2.2): Good business language skills in English
- General professional experience (2.2.3): Overall 20 years of professional experience in the Urban Infrastructure sector

- Specific professional experience (2.2.4): 10 years' experience in the urban water sector
- Leadership/management experience (2.2.5): 3 years of management/leadership experience as project team leader or manager in a company / Government department (e.g. retired senior level Engineer like Superintending Engineer or equivalent or above)
- Regional experience (2.2.6): Not applicable
- Development Cooperation (DC) experience (2.2.7): 2 years of experience in DC projects
- Other (2.2.8): Experience of working with Government of India on similar projects

Technical Experts (2 Nos.) (2.3)

Tasks of technical experts

- Assist the Team Leader and the Deputy Team Leader as deemed necessary
- Any other task related to the Manual as assigned by the Team Leader/ Deputy team leader

Qualifications of technical experts

- Education/training (2.3.1): University qualification (Master's degree) in Civil Engineering with specialisation in Public Health Engineering / Environmental Engineering / Hydraulic Engineering / other related subjects
- Language (2.3.2): Not applicable
- General professional experience (2.3.3): each expert having 6 years of professional experience in the Urban Infrastructure sector
- Specific professional experience (2.3.4): each expert having 4 years' experience in the urban water sector
- Leadership/management experience (2.3.5): Not applicable
- Regional experience (2.3.6): Not applicable
- Development Cooperation (DC) experience (2.3.7): Not applicable
- Other (2.3.8): Not applicable

Pool of Senior Short-term Experts (6 Nos.) (2.6)

The Bidder is expected to submit a Pool of Senior Short-term Experts (multi-disciplinary team) to cover all the three broad categories of engineering, O&M and management of the Manual in a comprehensive manner. The Bidder shall clearly mention the 'proposed position' and the 'specialist area of knowledge' of the expert (e.g. NRW expert etc.) in the CVs.

Tasks of the Short-Term Expert (STE) pool

- Providing timely specialist technical inputs (content development) for all parts (A/B/C) of the Manual in a comprehensive manner (as requested / advised by the Expert Committee)
- Assist the Team Leader and the Deputy Team Leader as deemed necessary (as and when required)

Qualifications of the short-term expert pool

- Education/training (2.6.1): 4 experts with University qualification (Master' degree) in Civil Engineering with specialisation in Public Health Engineering / Environmental Engineering / Hydraulic Engineering / Water Engineering / other related subjects, remaining experts with University qualification (Master's degree) in Urban Planning, Management, Finance / other related subjects
- Language (2.6.2): Not applicable
- General professional experience (2.6.3): 4 experts with 15 years of professional experience in the urban water sector, remaining experts with 10 years of professional experience in the urban water sector

- Specific professional experience (2.6.4): All experts with 8 years' experience (each expert) in various areas of expertise required to complete the Manual. The composition of experts must be such that the Pool of STEs has comprehensive experience & can provide specialist technical inputs for all parts of the Manual including latest technological advancements & management regimes in the urban water sector (e.g. NRW, automation, energy efficiency, asset management, PPP, finance) in a comprehensive manner.
- Regional experience (2.6.5): 3 experts with International experience
- Development Cooperation (DC) experience (2.6.6): Not applicable
- Other (2.6.7): Not applicable

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications.

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

Bidder's Personnel : The selected bidder shall employ such qualified and experienced professionals as are required to perform the work in a proper, effective and timely manner. The contractor shall confirm the availability of all experts as indicated in its bid. GIZ will not normally consider substitutions (especially for the Team Leader and Deputy Team Leader) during the entire contract period unless both the parties agree that such substitution is unavoidable, or for reasons such as death or medical incapacity or for reasons which are really beyond the control of the contractor. Notwithstanding, any proposed substitution for the reasons mentioned above shall be brought to prior notice (at least one-month notice period) and seek consent of CPHEEO and GIZ. The substitute candidate shall have equivalent or better qualifications and experience than the original candidate and such candidate shall resume duties prior (at least two weeks prior for smooth handover) to the relieving of the original expert. In case of substitution of experts, GIZ reserves the right to examine and approve / reject the new experts proposed to be provided as a replacement, any replaced expert shall be inducted only after written approval by GIZ.

5. Costing requirements

The contract to be concluded is a contract for works, thus offer a fixed lumpsum price that covers all applicable costs (fees for assignment of personnel, travel expenses, other costs, etc.). The price bid will be evaluated based on the specified lump sum price. For GIZ's internal costing and any further commissions, please also provide the breakdown and rate for which the prices are based on.

Assignment of personnel

Sr.	Personnel	Nos.	Place of performance*
1	Team Leader	1	Delhi**

2	Deputy Team Leader	1	Delhi**
3	Technical Experts	2	Delhi**
4	Pool of Senior Short-term Experts	6	-
	TOTAL	10	

*Place of performance: The Team Leader or the Deputy Team Leader (as deemed appropriate by the contractor) shall always be positioned (full-time) in Delhi for regular coordination with CPHEEO, for receiving their inputs and ensuring timely completion of the Manual

**Delhi: On-site assignment at the office of the CPHEEO, MoHUA, Nirman Bhawan, New Delhi

Travel

On request of GIZ / CPHEEO or if the Team Leader needs, relevant senior experts from the Pool of Short-terms Experts shall be invited to participate in various meetings of the Expert Committee / Working Groups (applicable to experts who are actively involved in the preparation of the contents of the Manual which are under discussion / deliberation in the proposed meetings of the Expert Committee / Working Groups).

Other costs

- Stationery and Printing
- Telephone and Internet costs
- Institutional overheads

Flexible remuneration item

In addition to the fixed lumpsum price that covers all applicable costs (fees for assignment of personnel, travel expenses, other costs etc.), the bidder must additionally (separate than fixed lumpsum price) consider a flexible remuneration item (10% of the fixed lumpsum price) in the budget. This flexible item may be allowed (at the sole discretion of GIZ) if there arises a special need for a shift or an increase in individual items in the specification of inputs.

6. Inputs of GIZ or other actors

GIZ and/or other actors are expected to make the following available:

CPHEEO / MoHUA

- The CPHEEO shall act as a counterpart department (on behalf of MoHUA) for revising the Manual and a coordinating body in relation with other Governmental and Non-Governmental organisations concerned for the smooth revision of the Manual.
- MoHUA / CPHEEO shall constitute the Expert Committee and Working Groups for revising the Manual.
- To hold regular meetings in a span of 1½ to 2 months period (in Delhi / virtually) to deliberate the contents of the Manual to ensure quality output (by the contractor) and timely completion of the Manual,
- Shall provide 1-2 seating space in CPHEEO's office for the firm appointed by GIZ for revising the Manual
- Shall share, to the extent possible, all necessary documents, available data and other relevant information related to the revision of the Manual
- The final decision regarding inclusion or rejection of any part / whole of the Manual lies with the Chairman of the Expert Committee / CPHEEO.

Expert Committee

- (i) Advise and guide the revision and preparation of the Water supply Manual
- (ii) To actively participate in regular meetings in a span of 1½ to 2 months period (in Delhi / virtually) to deliberate the contents of the Manual to ensure quality output (by the contractor) and timely completion of the Manual
- (iii) Approve the nomenclature of the chapters and final contents of the Manual
- (iv) Review the contents of the revised Manual and provide valuable suggestions / comments within the stipulated time to enrich the contents of the chapters
- (v) Shall provide timely inputs into the contents of the Manual for ensuring that the timeline for the revision of the Manual is adhered to
- (vi) Ensure high-quality standards of the Manual until the completion of the Manual

GIZ

- (i) Support as Technical Knowledge Partner to CPHEEO in revising the Manual and provide suggestions / inputs for revision of the Manual
- (ii) To appoint a Consultancy firm in coordination with CPHEEO for revising and preparation of the Manual (executed through this contract)
- (iii) Shall appoint International Experts for enriching the contents of the Manual. The contractor shall duly consider the inputs from the International Experts in the Manual.
- (iv) Shall organize (with support of CPHEEO) the meetings of the Expert Committee and Working groups
- (v) Shall organise the events / workshops for orientation and public launch of the Manual. Organise National stakeholder workshop in consultation with CPHEEO for receiving inputs on the draft final Manual.

7. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToR. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English language only.

The complete bid shall not exceed 20 pages (excluding CV's & company documents). All documents which need to be submitted as per the grid for assessing the eligibility of firms shall fall under company documents. The 20 page technical bid shall be a different document & CV's shall be separate.

Documentary proofs (documents which need to be submitted as per the grid for assessing the eligibility of consulting firms) furnished by the Bidder shall be in English language only. Documentary proofs in any other language shall be accompanied by appropriate translations of the pertinent passages in the English language, duly authenticated and certified by the appropriate authority.

The CVs of the personnel proposed in accordance with Chapter 4 of the ToR must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs must also be submitted in English language only.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

As the contract to be concluded is a contract for works, please offer a fixed lumpsum price that covers all applicable costs (fees, travel expenses, other costs, etc.). The price bid will be evaluated based on the specified lumpsum price. For GIZ internal costing and any further commissions, please also provide the rate which the prices are based on.