# Terms of Reference (TOR)

**6.1 INTRODUCTION**

The Government of Sri Lanka (GOSL) has decided to develop a recreational beach/ sea waterfront from Colpetty to Dehiwala canal outlet to fulfil the needs of the public for recreational activities and reserve space for future Railway Transport Development Plan. In this regard, pre-feasibility study is already carried out and initial outcome and few recommendations are primarily available.

The public open spaces for recreation at Galle Face Green will not be sufficient to fulfil the current and future demands within the proximity of Colombo. The City of Colombo is being experienced a major transformation as a business, tourism and entertainment destination for both local residents and international visitors. The city recognizes the need for additional beachfronts, open spaces and recreational facilities in order to draw larger local and foreign attractions to the Colombo area and to make Colombo more competitive in tourism industry. It is expected integration of this development interconnecting three existing recreational zones i.e. Diyatha, Viharamaha-Devi and Beira-Lake recreational areas.

By implementing this project sea erosion will also be mitigated to a greater extent. Further, the mental and physical health of the public will be improved by providing adequate spaces for relaxation, exercises and recreational activities, which will transform Colombo to a more liveable city. In addition, it is expected to enhance the environmental standards by developing a methodical drainage/ storm water system along Colpetty to Wellawatta South for the betterment of the coastal eco system. Furthermore, it is proposed to construct 10 Nos high-rise buildings over the existing railway tracks which will serve the increasing demands for commercial developments such as luxury apartments, hotels, etc.

Currently, the proposed area does not possess any beachfront except Wellawatta area. Presently, approximately 20-50 meters beachfront is available in Wellawatta North to Wellawatta South. Hence, it is highly appropriate to develop a beachfront for public recreational purposes particularly from Colpetty to Dehiwala area considering the necessity and long felt need to have a beach access for the public living in and around Colombo temporarily and permanently. Further, development shall entail structural protection along the beachfront to mitigate erosion of reclaimed beach. Zonal landscape arrangement to be arranged within and surrounded locations.

The successful investor/ investors for different parts within the scope of the development will be selected in terms of Government Procurement Procedure (Guidelines on Government Tender Procedure Part II, Private Sector Infrastructure Projects-1998), to finance, design, build, operate and transfer the development based on a PPP agreement in which the investor/ investors will recover the capital expenditure mainly through commercial development not exceeding 20ha of reclaimed land in within or in addition to the proposed reclaimed land (total 85ha). Further, the proposed commercial buildings for mixed developments will enhance revenue of the investor.

Western Region Maritime City Development Project (WRMCDP) under the Ministry of Megapolis and Western Development (hereinafter referred as the “Client”) wishes to hire the services of a suitable institute (hereinafter referred as the “Consultant”) to carry out a ‘Feasibility Study’ for the project in order to support the procurement of selection of a successful investor (Private Partner).

Funding source for the Feasibility Study is Ministry of Megapolis & Western Development.

**6.2 OBJECTIVES OF THE STUDY**

The main objective of the Feasibility Study is

* To conduct a comprehensive Feasibility Study diagnosing the outcomes and recommendations of the Pre-feasibility Study as necessary, evaluate different options of locations of the mixed developments and other buildings which proposed in the Pre-feasibility Study and approach the best scenario by own efforts.
* To identify the technical, socio-economical, socio-cultural, environmental, financial, operational and legal viability of the proposed Recreational Beach/ Sea Waterfront Project from Colpetty to Dehiwala canal outlet and process of resource extraction and;
* To identify and recommend optimal coastal structures and their Engineering design with locations to facilitate the study.
* To identify least viable and nonviable components of the Project Proposal (Concept Plan) and to suggest mitigatory actions and recommendations for alternatives and amendments if any.
* To identify the suitable methodologies for development and implementation of project components
* To propose the best scenario which will ensure best attraction to investors minimizing the equity capital share to operational procedure; Toll systems if any, etc.
* Prediction of extent of public part of shares of investment assessments of public lands for which investors burden
* Study to avoid any obstacles with respect to the development of Colombo International Financial City Project and its Tri-partite Contract Agreement and to provide feasible development proposals mitigating risks (if any) of investment

**6.3 SCOPE OF CONSULTANCY SERVICE**

In general, the extent considered in the pre-feasibility study shall be further detailed based on additional data, analyses, recommendations and conclusions. However, the scope of the feasibility shall not be limited to the extent that of pre-feasibility study but all the possible technical and non-technical aspects which shall influence on the project planning, implementation, deliverables & operations and all the aspects which could be affected by the project activities, deliverables and operations.

Further, the scope of the feasibility study shall include dredging, reclamation and construction of all marine/ coastal structures, buildings, roads. etc. other structures on ground. However, the main aspects of the study shall include but not limited, to the following;

**6.3.1 Relevance**

The consultant shall assess the extent to which the proposed project is coherent with the country’s macro-economic environment and addresses the economic or social demands. This will involve verifying the analysis presented in the pre-feasibility study with regards to:

* The nature and number of beneficiaries, potentially affected by the proposed project;
* All organizations and agencies affected by or involved in the proposed project;
* All major problems related to the proposed project, experienced by the beneficiaries and other parties involved, the causal inter-relationships of these problems and the intersectoral linkages;
* Other interventions or priorities of ministries, agencies and donors which may affect or will be affected by the proposed project;
* Information from previous studies and evaluations relevant to the proposed project;

**6.3.2 Infrastructure Gap Assessment**

The Consultant shall undertake activities not limited to as mentioned below:

* Assess existing on-site & off-site physical infrastructure (buried and above ground) like water supply, sanitation, waste & sewer disposal, power etc. in the project area.
* Assess the demand for onsite physical infrastructure (viz. road connectivity, water supply, sewerage/ waste-water treatment, power supply, etc.). These requirements/ demand may be proposed in a phase-wise manner.
* Feasible re-routing; abandonment of existing routing
* Proposal of central locations feasible for internal roads and underground services (sewerage, irrigation, wastewater, storm water, sub-stations, Telecom, Lighting, Sewerage Treatment Plant (STP), Garbage Management, etc.)
* Conduct preliminary site appraisal specifically for the identified site and proposed products to provide information of infrastructure gaps and tentative risks for the project
* The consultant shall also estimate and suggest the type of external connectivity.
* Detailed assessment of infrastructure in integration with Diyatha, Viharamaha-Devi and Beira Lake recreational areas
* Feasibility of investment for infrastructure by investors.
* Time management of infrastructural activities, preparation of re-settlement plan, cost arrangement for re-settlement procedures
* Arrangement of transport modes during implementation
* Mobility survey and mobility demand
* Prediction for SLR, RDA, PRDA to establish multi-storied railway stations and tracks
* Canal reclamation procedure

**6.3.3 Feasibility**

The Consultant shall evaluate the Feasibility of the proposed development on following areas which will be concluded based on adequate data and analysis including mitigatory measures and recommendations, if any.

**6.3.3.1 Technical Feasibility**

**6.3.3.1.1 Design Criteria**

* Availability/ Quantity of sand to be extracted
* Dredging and extraction of sand
* Methodology of dredging with time requirements.
* Sand quality data
* Water depth to the sand deposit
* Proposed mining depth from the surface of the deposit
* Mining history of the site and its environs
* Use of rock for the project
* Reasons for the design alterations
* Analysis of the reclamation work
* Quarry material
* Location of stock pilling
* Transportation routes (effect on marine traffic), type of vessels to be used, vessels and barge operation schedule
* General Description of Future Development Activities on reclaimed land including time frames
* Utility Infrastructure
* Solid Waste
* Water supply
* Wastewater & Sewerage treatment
* Evaluation of alternatives
* Future expansion of project
* Urban Design
* Design Guidelines
* Green Building Concept
* Proposed recreational activities
* Review constraints imposed with respect to Urban Planning; Development Control Guidelines; Utilities Plan, Landscape Plan; Smart and Sustainability Concepts and Guidelines and Colombo International Financial City Act
* Recommendation of level of design i.e. scope of design by investors and parameters under which the investors are allowed to design
* Zoning plan for the proposed area. Review of different scenarios given in Pre-Feasibility study and Concept Plan

**6.3.3.1.2 Engineering Studies**

* Wave Climate Model
* Hydrodynamic Model
* Wave Disturbance Model
* Sediment Transport Model
* Shore Profile Survey
* 2D and 3D Physical Model
* Numerical Model of Water Exchange
* Water Quality Sampling & Analysis
* Traffic Impact Assessment
* Ground Investigation for Sand Borrow area and Reclamation area

**6.3.3.2 Environmental Feasibility**

**6.3.3.2.1 Existing Environment**

* Bathymetry of the reclamation area
* Coastal morphology
* Coastal features including beach profile
* Coastal erosion and /or accretion trends
* Water quality of project area
* Existing drainage outfalls
* Biological data
* Ambient Air Quality
* Ship Wrecks
* Assessment of impacts of Colombo International Financial City

**6.3.3.2.2 Environmental Impacts**

* Physical/ Chemical conditions
* Hydraulic circulation
* Wave conditions
* Biological - Ecological Conditions
* Coral Reefs
* Aesthetic and recreational value
* Fishery and Aquaculture
* Demand for quarry material
* Handling and stock piling of material
* Cultural and archaeological issues
* Noise and vibration
	+ - 1. **Socio-Cultural/Economic Feasibility**
* Socio-cultural impacts
* Socio-economic impacts
* Fishing population/ Residents
* Number and types of fishing crafts operated and their sizes
* Number and type of fishing gears used
* Number of Beach seine
* Seasons of fishing operations
* Species diversity and quantity of fish captured
* Income level of the fishers/Residents
* Seasonal migration/Movement
* Existing buildings in coastal strips and relocation plan/alternatives
* Impact and mitigation measures for fishing industry

**6.3.3.4 PPP Feasibility**

Despite PPP operation for 30-40 years with 200% return as given in Pre-Feasibility observation, it is required the consultant to recommend what is the best scenario for land lease; public part equity share by GOSL; phasing out of development to make attractive to investors as well as based on different public agencies such as SLR, SLLRDC, DCC&CRM, RDA, PRDA, UDA, Condominium Authority, etc.

The Consultant shall evolve broad project structuring model for implementation through public-private partnership (PPP) and evolve alternative scenarios including considering the option of Viability Gap Funding (VGF) for enhancing the financial viability of the proposed development. Assessing the commercial viability of the project if structured with or without any direct additional government support. The consultant shall conduct PPP options (BOT, BOOT, DBOT, etc) assessment for structuring the project. The consultant shall suggest the project structuring options for delivering the project on the appropriate PPP model by also keeping in mind all the relevant policies and guidelines of various ministries/ authorities issued from time to time. The consultant shall assess what additional options exist to make the commercially viability of the proposed development more attractive while taking into account the additional financial impact and burden that may fall to the public sector. The consultant shall recommend on the optimum structuring approach for delivering this project as a PPP. Generate options for bidding parameter and recommend optimal bidding parameter. Advise on tax-related issues arising out of structuring of the project.

Further, the Consultant shall determine the feasibility of the project for investment on PPP by analysing the alternative technical solutions taking account of economic and financial, institutional and management, environmental, socio-cultural, regulatory and operational standards and practices. The conclusion shall include the proposed concession period, recommendations for agreement, options of gap financing, key risk factors, etc.

**6.3.3.5 Economic and financial feasibility**

The consultant shall prepare detailed cost estimates covering the different work components related with the proposed development along with the construction schedule of the project with particular reference to critical areas of work. The revenue generation from all the possible activities (Proposed mixed development buildings, Dedicated area for commercial development not more than 20 hectares from the reclaimed land, etc.) taking place within the proposed development area shall be assessed and recommended to be taken on yearly basis till the financial life of the project. In anticipation of the above, the consultant shall consider minimum of 3 alternative scenarios and suggest the most viable model, lay out detailed implementation plan, guide MM&WD to implement it on ground within the specified time frames.

The consultant shall develop a detailed financing model based on above to work out Cash Flow statement and the Financial Viability of the project including FIRR along with sensitivity analysis based on the revenue stream and cost of setting up such an area for the intended development. Financial indicators need to be worked out that shall include payback period, IRR, NPV, profitability ratios, sensitivities and scenarios. Sensitivity analysis with parameters like capital cost, operation and maintenance costs, tariff structure, traffic levels etc. may be made to present the viability scenario for obtaining appropriate decisions by the Client.

Based upon the inputs from the above analysis, alternate financial structures for the proposed development shall be developed and a financially viable model will be suggested for the proposed development so as to attract private sector participation and to minimize the financial burden for the public sector.

**6.3.4 Project Risk Assessment**

As part of the study, the consultant will need to build a comprehensive risk assessment framework across internal and external risks and identify the same for the project. The consultant will need to identify the risk variables and the range of variability for each of the key external and internal risks. In addition, high level impact assessment needs to be conducted along with suitable mitigation measures & strategies. Restrictions from governing rules of Sri Lanka

Potentials of Location- Strengths benefitting development opportunities for investors. Trace and identify feasible concessions grantable to prospective investors.

**6.3.5 Pre-conditions**

The consultant shall determine any preconditions necessary for the start of project activities.

The consultant shall propose an efficient project organisation and any phasing of project activities considered necessary and cost estimates are to be provided for all project activities.

This information, which updates the pre-feasibility study, may be presented in a separate chapter of the feasibility study report.

Re-settlement, Liberate of lands, program and financing for re-settlement, Methodology of income generation during period of re-settlement and during period of implementation.

Proper investigation of feasible distribution of scope of development between public institutions say SLLRDC, UDA, SLR, RDA, PRDA, condominium Authority in mixed developments and above areas of Railway Stations.

**6.3.6 Sustainability & Smart Arrangements**

The consultant shall assess the sustainability of the proposed project using the key sustainability factors. These key factors are:

* policy and coordination;
* demand and economic sustainability;
* financial sustainability;
* institutional and management sustainability;
* environmental and sociocultural sustainability;
* Regulatory and operational sustainability.

These lists of issues are not exhaustive. The consultant is required to use their professional judgement and experience to review all relevant factors and to bring these to the attention of the Government.

**6.3.7 Work plan**

On the basis of the proposed time schedule outlined in this Terms of Reference, the consultant will prepare a work plan and include this in their offer. The work plan should set out the consultant’s approach to the following activities:

* Fact finding/data collection/surveys omitted in the pre-feasibility study or requiring updating;
* Identification of different scenarios for the proposed project;
* Analysis of alternative technical solutions;
* A briefing report summarizing the analysis of the different scenarios;
* Consultation meetings with decision makers/stakeholders to identify the preferred technical solution;
* Preparation of the draft and final feasibility study report.

**6.3.8 Expertise required**

The consultant must specify the qualifications and experience of each specialist to be assigned to the study. For each specialist proposed, a curriculum vitae must be provided of no more than four pages setting out the relevant experience.

Proposed team and the firm will propose required time period of mobilization of each expert;

1. Team Leader
2. Services Engineer
3. Infrastructure Engineer
4. Coastal and Marine Engineer
5. Coastal Resources Management Specialist
6. Environmental Specialist
7. Market Economic specialist/ Financial Specialist (PPP Expert)
8. Legal Expert
9. Sociologist/ Resettlement Specialist
10. GIS specialist
11. Architect
12. Quantity Surveyor
13. Transportation Specialist

and any other professional as decided including supporting staff, labour, etc. as required.

**6.4 DELIVERABLES OF THE STUDY**

The Consultant shall submit following reports with regards to the Feasibility Study.

1. **Inception Report**

The inception report shall include study framework, institutional arrangement (if revised), detailed schedule of study, resource arrangement, study methodology and bathymetry & topographic survey data of the project site which provide sufficient details for the investors to prepare their proposals. The inception report shall conclude to a committee appointed by the Secretary and chaired by the Secretory/ the Chairman, Cabinet Appointed Consultants Procurement Committee (CPCC)along with soft and hard copies including supporting data, followed by a presentation.

1. **Interim Report**

The consultant shall present the progress of the study with the identified issues, deviations, additions to the study and submit as an interim progress report. It shall be a comprehensive report based on collected data and project stakeholders’ clearances/ consents of the proposed development. The interim report shall conclude to a committee appointed by the Secretary and chaired by the Secretory/ the Chairman, Cabinet Appointed Consultants Procurement Committee (CPCC) along with soft and hard copies including supporting data, followed by a presentation.

1. **Draft Final Report**

Draft final report shall address the following.

* + An assessment of the relevance of the proposed project to address the problems identified in the economic and social sectors and any additional problems arising in the transport and demand sectors;
	+ A detailed analysis of the technical/ engineering, economic, financial, institutional & management, environmental, socio-cultural and legal feasibility of the proposed project.
	+ A detailed analysis of the potential sustainability of the project results.
	+ The detailed plan which specifies indicators for project objectives, results and activities and incorporates required resources, the institutional structure required for project implementation, and stipulates the responsibilities of various bodies, project timing/phasing, estimated costs and a logical framework planning matrix;
	+ A draft financing proposal (including Total Investment, Investment recovery periods, PPP Model, Equity/ Loan Ratio);
	+ Recommendations for the following steps and any further actions to secure project financing and implementation, for example, the draft documents for Request for Proposals (RFP) for the proposed development.

Accordingly, the outputs/ deliverables of the Draft Final Report shall be as follows.

1. Initial Environmental Examination
2. Biological Environment Analysis
3. Sediment Transport Analysis
4. Sand quantity and quality assessment
5. Shoreline profiles including bathymetry maps
6. Water quality survey
7. Economic and financial feasibility
8. Prepare and consolidate the draft RFP document incorporating the outcomes of the Feasibility Study for the proposed development

In addition, the draft final report shall be included the recommendations for all aspects of the feasibility study and results except physical model analysis of coastal structures but including numerical analysis of the same. The draft final report shall be concluded to MM&WD along with soft and hard copies including supporting data, followed by a presentation. This shall be submitted and presented to Coast Conservation Department (CCD) by the consultant on behalf of the Client and receive comments. The consultant shall attend for any improvements required and re-submit the document to CCD and obtain approval. Further, this shall be verified by a committee appointed by the Secretary and chaired by the Secretary/ the Chairman, Cabinet Appointed Consultants Procurement Committee (CPCC).

1. **Final Report**

At the completion of the study including physical model analysis of coastal structures, the consultant shall present the outcomes of the study to a panel elected by the Client and shall submit 3 copies of hard-bounded report including appendices along with all the soft copies. The report shall contain all details given in ToR with feasible plan and strategy for procurement, implementation and operation.

Further, it shall include, feasible method of land lease, separation of implementation between different public institutions, operational method, investment criteria, level of designs to be applied, cost of developments, plans and programmes of re-settlement, implementation, management, corporation, integration with other developments, etc.

**6.5 ROLES & RESPONSIBILITIES**

**6.5.1 Roles & Responsibilities of MM&WD**

* Providing assistance to the Consultant by contacting / coordinating with the relevant stakeholder organizations
* Assist Consultant to obtain necessary data and reports
* Support the Consultant to obtain entry and exit visas for the consultant’s expatriate staff;
* Support the Consultant to obtain permits required for the consultant’s staff to carry out their duties within the country
* Review deliverables received to MM&WD from consultant and liaise with stakeholders and issue clearance to the Consultant to move ahead with the next step of the study.
* Provide land details, assessment details, etc.

**6.5.2 Roles & Responsibilities of the Consultant**

* Provide progress/updates of the study to the Client whenever it is required.
* Assist the Client to prepare progress reports/ articles by providing relevant facts and statistics regarding the Feasibility Study.
* Represent the Client’s side at the meetings/workshops with the external (third) parties.

**6.6 DELIVERY SCHEDULE**

The consultant shall adhere to the following delivery schedule in their offer.

* + Inception Report which includes Bathymetry and Topographic data and survey map (1:5000) of the project site shall be submitted within 4 weeks from the date of commencement.
	+ MM&WD will scrutinize the report and will provide comments/suggestions within 7days at each stage along with stakeholders and clearance upon satisfaction.
	+ The consultant shall submit and present the Interim Report within 12 weeks from the date of commencement.
	+ The Consultant shall submit and present the draft final report within 20 weeks from the date of commencement with 3 hard copies along with the soft copy including all annexures.
	+ Final report to be submitted on or before 4 weeks of the submission of the draft final report incorporating comments (if any) from CCD.

## **6.7 PAYMENT TERMS**

The stage payments will be made according to the payment schedule given below.

1. Advance Payment 20% (Recovered through Payment Certificates)
2. Inception Report 10%
3. Interim Report 30%
4. Draft Final Report 20%
5. Final Report 40%

**Advance Payment Guarantee**

The 20% advance payment of the Contract Price stated in the Letter of Acceptance and by providing the unconditional on-Demand Advance Payment Guarantee issued by a commercial bank operated in Sri Lanka and approved by Central Bank of Sri Lanka in the format attached in APPENDIX F. The advance payment will be recovered proportionally in full at the payment of Draft Final Report.