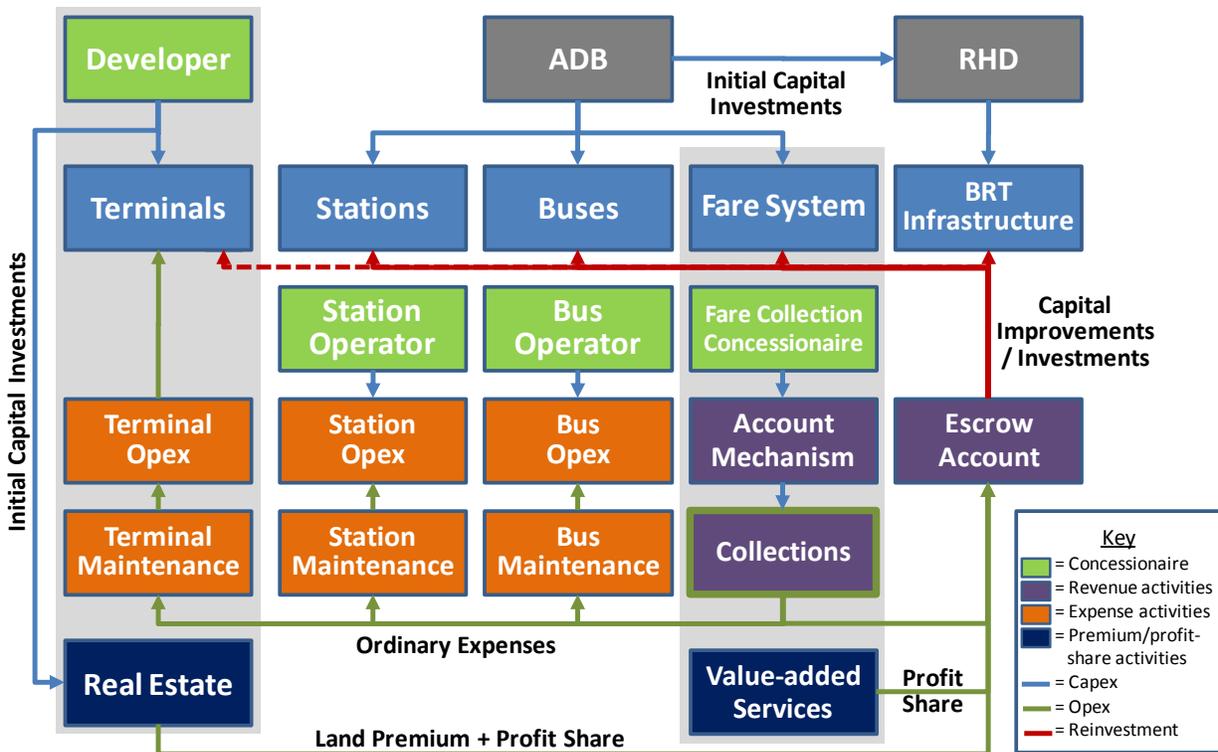


PUBLIC-PRIVATE PARTNERSHIP OPPORTUNITIES

A. Introduction

1. The project offers Bangladesh a unique opportunity to bring together a number of public-private partnership (PPP) modalities under a single project. The PPP aspects of the project promote enhanced operational efficiency and performance while sharing the burden of investment cost balanced against strong private sector development opportunities. Three modalities are being promoted as part of the project: (1) performance-based bus-rapid transit (BRT) operations concession; (2) fare collections concession; and (3) PPP terminal development and operations concession. The elements of the project under PPP are illustrated in Figure 1 below and the responsibilities of each concessionaire elaborated. Each of these PPP elements are related to and dependent on the performance of the other in order to achieve overall project goals and realize appropriate revenues and cost cover. Each of these PPP components is described in more detail in the sections that follow.

Figure 1 – Summary of PPP Elements and Responsibilities in GDSUTP



B. Government Focus on PPP

2. The government foresees PPP as the primary modality for delivering infrastructure and public services. In the upcoming 6th five-year plan, the government has targeted over 80% of public infrastructure to be supported by some form of private sector investment by the end of the plan period, accounting for 6% of GDP. This ambitious program was inaugurated with the adoption of the Policy and Strategy for Public-Private Partnership in August 2010. The ADB, through separate TA support¹, is providing consulting services for designing the policies, procedures and institutions required to implement the policy. Thus the project represents exactly the format of project the government seeks to promote under the new policy and, as such, will serve as a model for projects to come.

¹ "BAN TA-7691: Public-private Partnership Program Operationalization", December 2010. The TA inception took place in April 2011 and is targeting completion by 30 June 2012.

C. PPP Terminal Investments

i. Overview

3. The BRT terminal properties offer a unique opportunity to mobilize innovative private sector investment while delivering high quality public infrastructure facilities. The project contemplates bidding out development rights for significant land areas of high-value properties immediately adjacent to the transit terminals.² As a condition for development, the successful concession party will be required to deliver multi-modal transit hubs built, outfitted and maintained to specifications determined by the transit authorities. Depending on the extent of developable property allocated from the hub sites and plot density permitted, there is potential for substantial areas of mixed use commercial and residential real estate development.

4. The terminals are strategically located at Bangladesh Railways stations. This holds the potential to create the first true multi-modal transit hubs amongst Bangladesh Railways, the BRT, local buses and feeder transit.³ Given the concentration of passengers and foot traffic, these hubs will create natural points for commercial real estate opportunities.

5. The consulting team, in consultation with transit authorities, will specify the minimum floor area required, necessary transit movements, ticketing facilities, control, safety, lighting, signage and other requirements that the concessionaire would need to provide. In exchange for this investment, concessionaires would have a free hand to develop the balance of the property as they see fit within the specifications of development plans and zoning that may be imposed by regulatory authorities.⁴ Subject to assessment of potential financial viability, the bid for these rights might either yield a specific viability gap financing requirement or potentially might yield an offer of a development premium. Given that these terminals will become natural community focal points, there is also potential for generating competition for signature architectural designs.

6. The concession would likely be split into Built-Operated-Transfer (BOT) and effective Built-Operated-Owned (BOO) portions. Terminal facilities could be transferred to their respective authorities, after a reasonable operating period to demonstrate operating characteristics, costs, and performance maintenance/improvement parameters. Consideration should be given to offering commercial development areas under long-term land rights (e.g. 99 years, with possibility for extension) in order to provide sufficient incentive to private developers to invest in first class facilities. Concessionaires may be required to provide maintenance services for all public areas to a pre-agreed performance standard. The specific design of the PPP terminal concession would be based on the consultants' assessments and recommendations and provided to the government for consultation and ultimate confirmation.

ii. Terminal PPP concession design

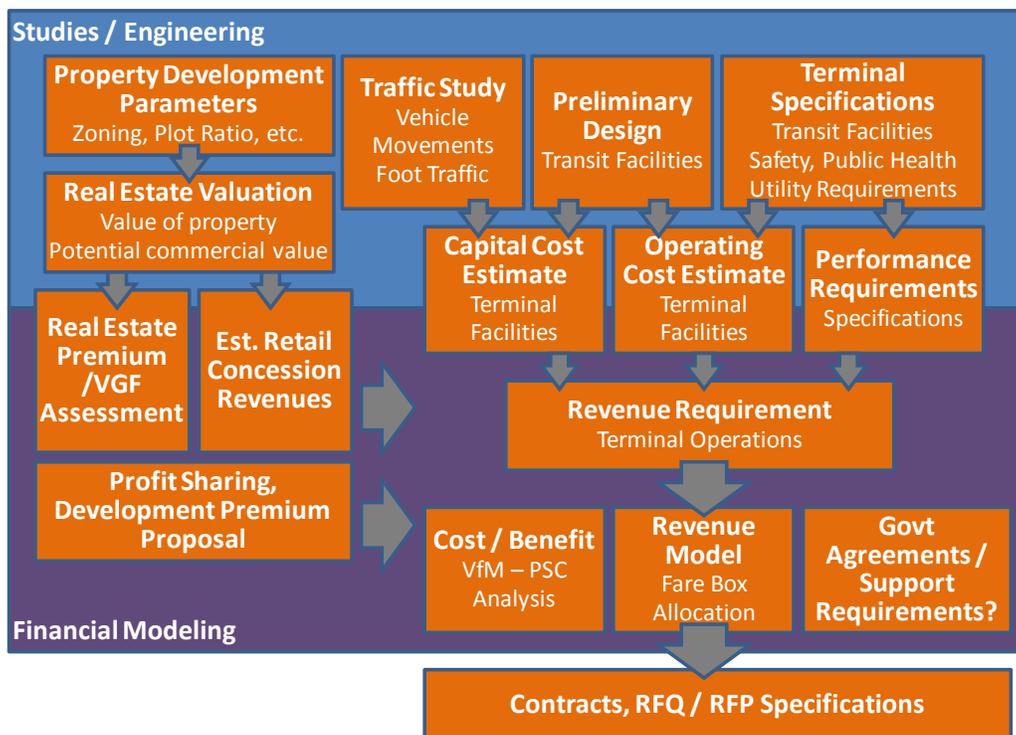
7. To prepare the terminal properties for bidding as PPPs, the following activities will need to be undertaken as part of the design stage of the project: (i) traffic study; (ii) terminal design specifications; (iii) real estate valuation; (iv) service specifications; (v) cost estimates; (vi) contract design; and (vii) financing plan. Each of these elements is elaborated upon below. Figure 2 provides a schematic summary of the elements of the terminal PPP consultant assessment scope and outputs.

² The land area is approximately 0.5 hectare at the airport terminal and 2.24 hectare at the Gazipur terminal.

³ Feeder transit is comprised of mini-buses, auto rickshaws, and bicycle rickshaws.

⁴ Subject to appropriate zoning restrictions including set-backs from right-of-way, height restrictions (if any), provision of sanitation facilities, and reasonable occupancy density clearly set out at time of RFP.

Figure 2 – Terminal PPP Consultant Activities and Outputs



8. **Traffic study.** Consultants will develop traffic projections covering transit movements for each mode of transport and estimated foot traffic that is projected to be generated within the transit hub. This will enable prospective bidders to estimate the potential attractiveness of the transit hub for commercial development.

9. **Terminal design specifications.** Working jointly, transportation and architectural engineering disciplines will coordinate to determine the necessary specifications of the intermodal hubs in order to assure efficient movement of traffic and design of operations, maintenance and passenger facilities appropriate to achieve a defined level of service, accounting for future growth of the transit system and proportionate growth of ridership. Specifications for each of the BRT, Railway station, and surface transport interchange areas will be considered as well as maintenance of traffic and transit services during construction. Based on these specifications, preliminary designs will be developed for purposes of determining reasonable construction periods and investment cost estimates. The specifications will be used in creating the technical and operational requirements of the RFP. The cost estimates and construction schedules will be used as a basis for evaluating bids. Together, the specifications and estimates will be used to develop a value for money assessment of the project to determine thresholds for private sector participation and, in conjunction with the real estate valuation, determine the extent to which viability gap financing might be required.

10. **Real estate valuation.** A professional commercial real estate advisory firm will be required to determine a valuation for the properties, examining current state of development and potential valuation post-development. This will provide the government with an indication of the base value of its land contribution and a relative indication of any prospective development premium that might be generated from bidding. The advisor can also support development of concession terms in relation to the real estate and looking at concession periods, conditions of hold/transfer/sale in order to assure the best value for money is attained.

11. **Service specifications.** The transportation and architectural engineers will work together to develop reasonable level of service specifications for the terminal appropriate to each mode of transport and for the public accommodation areas. These specifications will be developed in consultation with the relevant authorities.

12. In relation to the real estate development to be undertaken by the concessionaire, appropriate design, development, zoning, set-back, plot ratio, and other relevant specifications shall be developed to definitively specify the design envelope and design requirements for private developers. These specifications and requirements will be incorporated into the bid parameters for facilities design, maintenance and operations.

13. Consideration shall be given to the requirements for public facilities, particularly with regard to safety, environmental, and public health issues. Consultant teams will comprise the appropriate professional disciplines⁵ to develop these specifications in reference to and in consultation with relevant public authorities. The design specifications will identify needed electricity, water, sanitation (both wastewater and solid waste), and telecommunication requirements for the properties and identify sources of and solutions to the same. To the extent development, design, safety, public health, construction and operating specifications do not exist or are determined by the consultants to be not appropriately suited for purpose, the consulting team will recommend modifications to existing specifications.

14. **Contract design.** The consulting team will develop all of the draft contracts required to accompany the request for proposal to facilitate international competitive bidding. This will include the draft concession agreement, specific performance contracts for development, construction, operations and maintenance facilities. The team will also work with the relevant government authorities to create documentation around any government supports, approvals, and/or funding in support of the project. The contracts should be design to assure appropriate risk allocation between public and private sector parties in order to support the overall implementation goals across all phases of project development and operations.

15. **Financing plan and revenue modeling.** The consulting team will develop a comprehensive financial model to assess all relevant revenue and cost factors associated with the project. Cost factors will include the projected operating costs for the common terminal infrastructure facilities needed to meet performance standards required under contract. The consulting team, working in conjunction with the SPO and Bangladesh Railways, determine a fee structure appropriate to support operations. The consulting team will also propose a revenue model to support the fee structure. The revenue model will be compared to costs to determine the extent to which user fees can support operations and whether or not external support is required.

16. Based on the combination of revenue model, real estate premium (from the real estate advisor), operating cost structure and estimated capital costs, and evaluated in the context of the implied risk allocations arising from the performance standards and overall contract structure, the team will propose appropriate draft financing plans. The financial plan will be based on market soundings, domestic market capacity and assessment of available sources of funds for a project of the nature proposed. To the extent the project team identifies any potential challenges in debt structure, preliminary discussions will be initiated with identified debt sources in order to determine interest in and support for the project.

17. The project team will propose any identified need for viability gap financing, subsidies, and/or government support to enable the project authorities, with the support of the project

⁵ Disciplines will include but not be limited to fire, safety, accessibility, safeguards, procurement, and other professional services, beyond base architectural, transportation, electrical, mechanical, and civil engineering disciplines.

team, to approach the government with a support proposal. The project team will assess the project on a value for money (VfM) basis, using a public sector comparator methodology. The VfM analysis will compare the full project parameters (including any identified government support requirements) to parallel data based on a full public sector implementation of the proposed project (including capital costs and operating costs to achieve the same performance standards to be imposed on private developers), making sure that full disaggregation of public sector cost impacts are accounted for. Should the VfM analysis support a PPP model, a definitive support plan and draft revenue structure will be negotiated with the government for inclusion in the RFP documentation. Working with the foregoing factors, the project team will develop estimated bid parameters that could be expected to arise from the RFP process, creating a benchmark for bid evaluation.

D. Performance-based Bus Operations Contracting

18. BRT operations will see private contractors working under operating concessions that seek to ensure high performance through clearly defined base operating and maintenance requirements. Concessionaires will be required to maintain rolling stock to pre-determined standards that follow manufacturer-recommended maintenance program to maximize useful life of the assets. Concessionaires will also be monitored for compliance to BRT service standards, providing for a minimum number of trips and minimum frequencies along allocated routes.

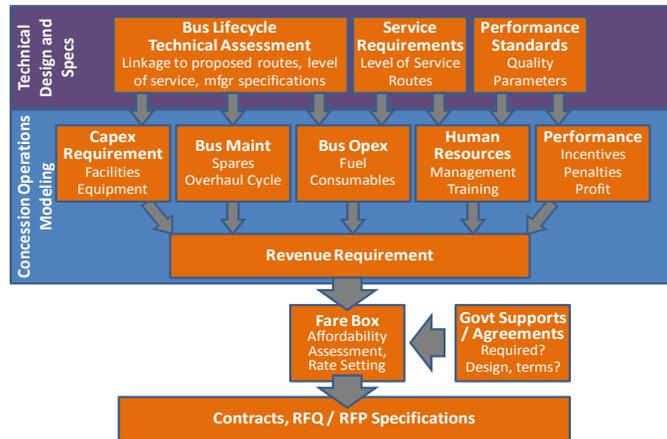
19. The consulting team, in consultation with the bus system technical consultants, will develop a financial model to determine the projected investment and operating costs over the proposed life of the concession contract. Operating parameters will account for the life cycle of the rolling stock: required maintenance cycles matched to manufacture specifications and adjusted for the anticipated levels and frequency of service, parts stocking and replacement frequency, anticipated staffing and human resource costs, and all other required operating costs. The model results will be used as a benchmark for evaluating bidder proposals resulting from a tendering process. Refer to Figure 3 for an overview of consultant activities and outputs.

20. The consulting team will evaluate the operating costs against proposed fare box revenue levels to determine the extent to which external operating cost coverage would be required. A Special Project Organization (SPO) will be created to manage BRT operations with the private sector. In the event external support is required, the consulting team, in consultation with the SPO, will develop proposals to source required revenues. Any required contractual and/or budgetary approval requirements will need to be tied up in advance of Request for Proposal (RFP) such that they can be included in the overall RFP package and assure bidders of a reliable source of revenue.

21. The consulting team will conduct evaluations of domestic bus operators to determine the extent to which current operating practices conform to BRT specifications and requirements. To the extent there is a mismatch, the project team should determine means for closing such gaps, whether through direct capacity building/training and/or requirements for partnering with experienced operators. The costs and/or fees associated with the capacity requirements should be accounted for in project development costs and/or operating costs.

22. Taking performance and cost parameters and their attendant risks into account, the consulting team will develop draft bus operating concession contracts for inclusion in the RFP package. Performance-based contracting will provide for incentives to concessionaires for good performance, penalties/damages, and replacement of under-performing concessionaires. The consulting team will design appropriate pre-qualification standards and RFP parameters accompanied by appropriate evaluation criteria for both.

Figure 3 – Bus Concession Areas of Consultant Study and Outputs



E. Fare Collection System Operations

23. Fare collection will be instrumental to supporting the operating cost of the BRT system and associated facilities in order to maximize efficiency and accuracy of user fee collections. The project intends to make use of state-of-the-art card-based fare systems. Card systems will permit both single trip and stored value tickets. The project intends to tender out the design and installation of the fare collection system as part of implementation costs, while operations of the fare collection system will be contracted with a concession-based service provider.

24. The operations and maintenance of the fare collection system is anticipated to be the responsibility of a private contractor, under a performance-based contract incentive structure. By permitting sufficient latitude in the RFP covering operations and packaging of fare services, there is potential for achieving significant competition, innovation and enhanced public/customer services while potentially reducing the up-front bids and increasing the potential for revenue/profit sharing with the public sector. For example, the fare service concessionaire could enter into tie-ups with financial institutions to provide card-based banking services or expand the scope of use of stored value cards to pay for goods or services from associated vendors. The fare collection also provides the potential for integrating the system with future transit projects. This holds the prospect for reinforcing ridership, facilitating ease of transfers among transit modes/systems, and creates potential for greater value-added services⁶.

25. The consulting team will aggregate the operating costs that need to be covered across all operating components of the project in order to determine an appropriate fare box revenue sharing structure. The consulting team will propose accounting structures required to assure fare box revenues are reliably distributed based on the revenue sharing structure, and propose an accountability and reporting mechanism for purposes of verification. An overview of consultant study activities and outputs for the fare concession is provided in Figure 4.

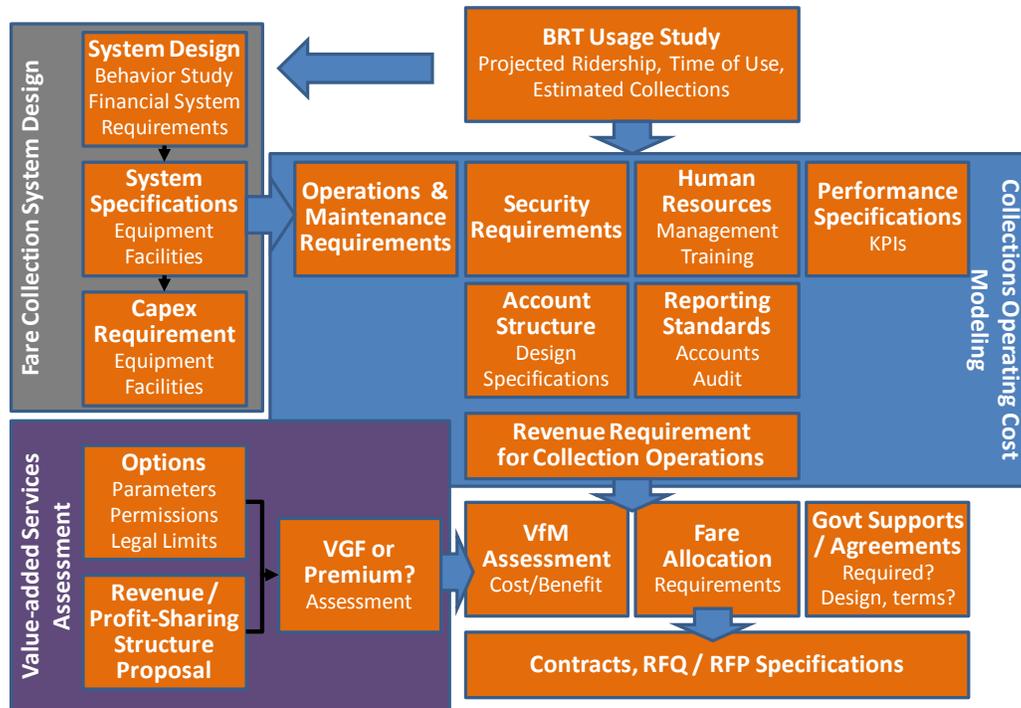
26. The consulting team will develop a financial model to assess the operating cost structure of the proposed fare collection concession. The team will assess the level of concession fee that will be required to sustain reliable operations of the fare collections concessionaire at a reasonable profit in order to understand the base level of economic operations. Given, however, the potential for provision of value added services, there exists the potential that such additional services could more than compensate the concessionaire for fare system operating costs. Since the nature and extent to which value-added services could increase profitability is unknown and up to the innovation of prospective bidders, the consulting team should propose options for potential profit sharing structures between the government and future

⁶ Value added services could include transit cards as part of employee benefits, card-based banking, and integration with non-transit vendors/services.

concessionaire.⁷ Using the aggregate of projected cost data and proposed performance requirements (and attendant risks arising there from), the project team will develop proposed bid scenarios and benchmarks for bid evaluation.

27. Based on the foregoing factors, the consulting team will develop proposed contracts for the concession covering a performance, risk, incentive and penalty structures to assure reliable operations of the fare collection systems. The concession contract will form an integral part of the RFP package released to prospective bidders. Taken together, the consulting team will structure RFQ and RFP parameters and evaluation criteria for the fare collection concession.

Figure 4 – Fare Collection Concession Consultant Activities and Outputs



F. Escrow Account

i. Operating Expense Allocation

28. The GDSUT project aims to be self-sustaining in regard to operating costs. This requires that all revenues from the various component activities get aggregated and distributed according to a carefully pre-arranged allocation mechanism. As envisioned, the fare collection concessionaire will have primary responsibility for this critical task. To both assure the allocation mechanism operates to plan on a reliable basis and to provide confidence to the other concessionaires and the transit authority, it is likely that receipts should flow through an escrow account, either held and operated by the fare concessionaire or via a trust structure held by a credible third party and operated per pre-arranged instructions by the fare concessionaire and agreed with the other concessionaires and the transit authority. This is likely to be a complex contractual arrangement, as it will likely require incorporation of the remuneration and performance / penalty adjustment provisions of each component contract. This structure will be evolved in coordination between the project team and the government authorities over the course of project design.

⁷ Based on consultant recommendations, potentially revenue/profit sharing structures could be used as a component for ranking bids. The structure could see a graduated sharing based on how much profitability exceeds base operating cost parameters calculated by the consultant team. The sharing structure should be proposed by the consultants in consultation with and approval from the government.

ii. Capital Investment / Capital Improvement Support

29. As initially planned, all capital investment required for the project would be provided from ADB, other donor, and government funding. However, the overall PPP structure detailed in Figure 1 foresees the potential for the project gaining additional revenues in the form of, *inter alia*, property development premium, fare concession premium, and profit sharing and/or royalty from value-added concessionaire operations. While the treatment of such additional revenues is the subject of detailed discussion with the relevant government authorities, there is potential for these monies to provide a viable source of long-term capital investment / improvement augmentation to the overall GDSUT project. An escrow account mechanism for the overall project could make sinking fund provisions for replacement of buses, replacement of fare systems, major station/terminal maintenance and major maintenance of the transit physical infrastructure. The project team will need to make projections of replacement costs and overhaul cost, and required lifecycle capital improvements, based on the projected wear and tear on facilities and useful life of project assets, accounting for inflation and domestic versus foreign-sourced inputs (to account for foreign exchange requirements). Based on this assessment, required annual contributions to a sinking fund for each investment category can be developed. These then can be further ranked by order of priority for project self-funding. A result cash waterfall structure can be developed that provides for prioritized funding of each sinking fund account; in other words, cash flows into the top of the water fall, filling one account before the next account in the priority chain starts to get filled. In the event there is a short-fall in required funding at any stage, the relevant government authority could top-up the account. If all accounts get filled, any excess monies can be distributed to the government per a pre-agreed mechanism and/or destination. If such excess capital exists, that could potentially get routed into support the overall Government PPP program in the form of a top up to the envisioned PPP technical assistance fund, a vehicle which provides development cost support for government-sponsored PPP projects. The key premise of this structure is to assure that all capital investments required during the operating period are provided for with certainty. This assures the government, the concessionaires and their financial backers that the overall system infrastructure and rolling stock will be remain in place and in serviceable condition.

30. An overall schematic view of the operating and capital improvement escrow structure is provided in Figure 5.

Figure 5 – GDSUTP Operating and Capital Account Escrow Overview

