APPLICATION FOR CTF PROJECT PREPARATION GRANT

A. TASK MANAGER FOR CTF FUNDING REQUEST

| Name: Ajay Kumar | | Position: Lead Transport Economist | | |
|--|-------------------|------------------------------------|--|--|
| Organization/Unit: International Bank for Reconstruction and Development (IBRD)/East Asia and Pacific Region/Infrastructure Unit | | | | |
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B. PROPOSAL SUMMARY

1. Geographic Focus of Proposed Activity:

| X | Individual Country (please specify): The Philippines | | |
|---|--|--|--|
| Regional or Multi-Country (please specify): | | | |
| | Global | | |

2. Project Title:

The Cebu Bus Rapid Transport (BRT) Demonstration Project

3. List of Deliverables from CTF Project Preparation Grant

- A1. Technical Feasibility Study and Preliminary Design
- A2. Climate Change Mitigation Framework
- A3. Capacity Building

C. PROPOSAL DETAILS

4. Summary of Proposed Activities

By submitting this CTF Project Preparation Grant Proposal, the Government of the Philippines wishes to finance important activities in the preparation of the Cebu BRT Demonstration Project. The grant is expected to finance preparation of the following:

- **A1**. **Technical Feasibility Study and Preliminary Design**: The feasibility study (including preliminary design and operating procedures) for the project will cover the following areas:
 - i. Service and operating plans
 - a. A comprehensive operations strategy for the BRT system and BRT-related routes, including targets and performance measures
 - b. Comprehensive operations management procedures for BRT-related routes
 - c. Comprehensive procedures for organisation and management of the BRT running way and junctions
 - d. Comprehensive procedures for operations management of BRT terminals and

bus-stops

- e. Comprehensive procedures for enforcement
- f. Internal organisational structure with capacity to deliver effective operations management.
- ii. Communication plans
- iii. Integrated transport and land use plans
- iv. Physical components (running ways, stations, terminal/interchanges, depots and ancillary infrastructure)
- v. Traffic engineering improvements
- vi. Vehicle options
- *vii.* BRT management systems (fare collection, dispatching, passenger information)
- *viii.* Upgrading of the city's area traffic control system
 - ix. Options for ensuring that jeepney drivers/operators on the Project corridor are not adversely affected by the project.

The output of this study would be the development of a BRT conceptual plan and preliminary design for a priority corridor in the Metro Cebu Region.

- **A2**. **Climate Change Mitigation Framework**: The objective is to prepare a greenhouse gas inventory and 20-year baseline for the urban transport sector in Cebu City, Philippines, and to estimate the potential impact of the development of a bus rapid transit system and ancillary traffic management improvements on this baseline.
- **A3.** Capacity Building: Capacity development for urban transport planning for DoTC and Cebu City government.

5. Rationale for CTF grant funding, including consistency with CTF Investment Plan:

The project, which is part of the CTF Investment Plan for the Philippines, is expected to have a transformational impact and has replicability potential.

In an effort to reduce the country's carbon footprint and improve air quality, the Philippines launched a National Environmentally Sustainable Transport Strategy (NESTS) in May 2011. The strategy mandates DoTC to reform the transportation sector, by defining and implementing policies favoring non-motorized transport and mass transport systems, and leading to lower consumption of fossil fuels. NESTS was consequently prepared by DoTC in collaboration with the Department of the Environment and National Resources (DENR), the Department of Health (DoH) and the Department of Energy (DoE) with the assistance of the University of the Philippines' National Center for Transportation Studies (UPNCTS). The strategy identifies four broad areas where policies could lead to the reduction in GHG emissions: (i) introducing more efficient fuel technologies for public transport; (ii) enhancing the efficiency of vehicles and tricycles; (iii) traffic demand management (including BRTs, LRTs, enhanced public transport planning); and (iv) expanding transportation choices in Cebu city. Shifting future modal distribution and improving vehicle operating conditions provide the opportunity to help

leapfrog efforts to bend country's emissions trajectory significantly in this sector for decades, while contributing to a better quality of life in the short-to-medium term.

The incremental importance of CTF funding in the transport sector is related to how urban transport improvements affect different segments of the transport market. Bus-based public transport improvements can potentially head off CO₂ emissions from two separate segments of the transport market: "captive" riders and "choice" riders, in the terminology of urban transport experts. Captive riders are those travelers who would be taking public transport in the future even in the counterfactual (that is, absent a concerted investment). Choice riders in this case can be considered those who would not take public transport in the counterfactual, but who might be induced to make the shift of mode given the right set of policy and investment initiatives. Bus-based public transport investments can reduce the CO₂ emissions trajectories from captive riders, by reducing the total number of bus vehicle kilometers needed to meet their mobility demands (through service rationalization) and by reducing energy consumption per vehicle kilometer (through improved road management and operational improvement). Beyond that, however, bus-based transport investments can also potentially reduce the CO₂ emission trajectories of choice riders, by inducing a modal shift, if certain thresholds can be met. Past experience has shown that choice riders switch to public transport if the transport facilities themselves (stations, buses, etc.) meet their expectations for a quality service, and if the door-to-door service time is at least competitive with their private, motorized alternatives (that is, it provides good access to their origins and destinations, with high speed services, and minimal required changes and walking at both ends.) This, in turn, means improving the network connectivity of the public transport system.

The introduction of BRT in Cebu City is an integral part of NESTS to improve livability in the city through better mobility, a reduction in pollution and an increase in the productivity of the city, which has a population of about 900,000 and is only served by an informal public transit system consisting of motorized tricycles, jeepneys, and taxis. The current situation of rapidly growing vehicle ownership and use resulting in further congestion, air pollution, GHG emissions and road accidents, is unlikely to improve, without the development and implementation of a comprehensive urban transport plan, as most of the economic and land development in Cebu City continues to occur at the city's fringes, particularly in the northeast and southwest. This sprawling pattern of urban development will only exacerbate the negative conditions if not promptly addressed. The transformational impact of this mass transit system lies as much in the reduction of GHGs as in its large development potential in providing better and safer mobility, particularly for the poor, a cleaner environment and increased economic productivity.

Further, the investment cost of BRT to the public sector is high compared to the current system that is managed entirely by the informal sector and is beyond the financial capacity of local governments with tight budgets and large demands, particularly that there is no national precedent for this type of investment. Carbon finance has not been effective in mobilizing the necessary investments for large scale emissions in the transport sector.

Given that the Philippines is yet to develop a BRT system, CTF financing and support is crucial to help overcome some of the initial financial and institutional barriers and would help demonstrate at scale successful deployment for BRT systems in the Philippines. CTF will help support municipal governments in speeding and scaling up BRT investments. Key to the success of this planned deployment is an enhanced design of the BRT system that is fully integrated into the public transport

system. In the case of secondary cities such as Cebu, the BRT design will be used to influence land use planning and management in an environmentally sustainable manner. This would in turn lead to more BRTs than is currently envisioned as other cities start to recognize their benefits. In addition to Metro Manila, where the rationale for BRT systems is fairly clear, emerging metropolitan areas such as Metro Davao, Naga, Bacolod, Iloilo and Cagayan de Oro have been identified as potential sites for BRT project implementation.

6. Government Approval of Country-Specific Activities

| Name of responsible official: Mr. Rene Limcaoco | | |
|--|---|--------------------------------|
| Position: Under Secretary | | |
| Ministry/Agency: Department of Tran Communications (DoTC) | inistry/Agency: Department of Transportation and ommunications (DoTC) | |
| Tel: 63-2-723-1507 | Fax: 63-2-726-7128 | Email: reneklimcaoco@yahoo.com |

D. IMPLEMENTATION AND FINANCING PLAN

7. Implementation Approach

The Executing Agency for the CTF preparation grant will be the World Bank. The Government has requested that the World Bank serve as the executing agency to administer the project preparation grant from the CTF. The primary reason given for this request is that: a) evaluation of the technical proposals and guiding the work of selected consultant will require a very good understanding of the issues related to BRT operations and design, which at present is lacking in DoTC; b) this is the first BRT project in the Philippines, hence DoTC acknowledges that there is limited experience in both the Department and the Cebu City Government to provide necessary support for the preparation studies. DoTC hopes to tap the Bank's international experience on BRTs and access to a wide group of specialists to better guide the preparation activities; and c) DoTC is a new implementing agency and is not familiar with Bank procurement standards and guidelines required for project preparation and, therefore, may be unable to meet the tight timelines of the CTF.

The Bank will set up a Review Committee with urban transport specialists from the Bank's operational divisions and the anchor. All review findings will be shared with the Department of Transportation and Communications (DoTC) and Cebu City. The study will be conducted during the period December 2011 to September 2012.

Procurement: Procurement of consultancy services for the feasibility study will be in accordance with the World Bank's *Rules and Procedures for the Use of Consultants*, May 2008, using the relevant Bank Standard Bidding Documents. The process for selecting firms shall be through Short List and the method for evaluation is Quality and Cost-Based Selection (QCBS).

Disbursement: Disbursement of the Grant resources will be made directly by the World Bank.

Reporting: The Bank's Review Committee will prepare progress reports outlining the progress made in project implementation, including procurement, highlight the difficulties faced and organize discussion

8. Implementation Schedule: *beginning and end dates, as well as major activity milestones.*

| Activities | Milestones/Deliverables | Timeline |
|--|--|--|
| A1. Technical Feasibility Study and Preliminary De | | Timemic |
| Preparation of a detailed work plan, including study | Detailed project work and | Duration: 15 days |
| organization and staffing, budgets and schedules, | management plans | |
| project management | Schedule and budget | |
| Preparation of a formal stakeholder public | Communication and | Duration: throughout |
| involvement and communication plan and brand | consultation plan | project preparation |
| concept | Stakeholder workshops | Frederick |
| | Public meetings | |
| | Branding recommendations | |
| Compilation of background information, analysis | Database and working models | Duration: 1month |
| methods and model, including analysis of current and | for input to analysis tasks | Start Date: on consultant |
| "no project" situation | Inception report | commencement |
| BRT service and operations plan and preliminary | Service Plan | Duration: 4 months |
| design | Preliminary plans for running | Start date: on completion |
| · · | ways | of the inception report |
| | Analysis of vehicle options, | |
| | functional specifications, | |
| | ITS applications report | |
| | (including ATC system) | |
| | Fare collection system and | |
| | institutional arrangement | |
| Capital, operating and maintenance costing, revenue | Report detailing development | Duration: 2 months |
| estimation | of the operating and | Start date: on completion |
| | maintenance and capital | of BRT service and |
| | costing models | operation plans and |
| | Financing plan | preliminary designs. |
| | Project Appraisal report | |
| Preparation of a plan for integration of BRT into land | Draft report on fostering | Duration: 2 months |
| development plans, strategic and site level | sustainable development in | Start date: on completion |
| | Cebu | of BRT service and |
| | | operation plans and |
| | | preliminary designs |
| Establish hus appresting presendings: | Datailed report on | Duration: 3 months |
| Establish bus operating procedures: | Detailed report on | |
| | - comprehensive operations strategy for the BRT system | Start date: on completion of BRT service and |
| | and BRT-related routes, | |
| | | operation plans and |
| | including targets and performance measures | preliminary designs |
| | - procedures for | |
| | organisation and management | |
| | of the BRT running way and | |
| | junctions | |
| | - internal organisational | |
| | structure with capacity to | |
| | deliver effective operations | |
| | management | |
| Review and finalization of all study reports | Final report | Duration: 10 months after |
| (including a conceptual plan and preliminary design | | commencement |
| of the pilot BRT corridor) | | |
| or the protestit contact) | 1 | i |

| A2. Climate Change Mitigation Framework | | |
|---|---|--|
| Develop urban transport Greenhouse Gas Emissions inventory for Cebu City and for Proposed BRT Corridor; and to estimate the potential impact of the development of a bus rapid transit system and ancillary traffic management improvements on this baseline. | 1) Prepare a GHG emissions inventory in Cebu City, as well as a corridor-specific inventory, based on a proposed BRT route; 2)Develop a descriptive baseline urban transport growth scenario for the City and prepare a 20- year GHG emissions forecast based on this scenario; 3) Based on new urban transport initiatives in Cebu City, develop alternative urban transport development scenarios, and prepare revised forecasts. | Duration:4 months Start date: one month after commencement |
| A3. Capacity Building Initiative | Milestone | Timeline |
| Capacity development for urban transport planning for DoTC, Cebu City government and other local governments. | Conduct workshops and capacity strengthening forums Prepare final report | Between December 2011 and September 2012 |

9. Financing Plan:

| Major Components | CTF Request | Co-financing | | Total Cost |
|--|-------------|--------------|-----------------------|------------|
| | (US\$) | US\$ | Source | (US\$) |
| Technical Feasibility Study and preliminary design | 800,000 | 50,000 | Government In kind | 850,000 |
| Climate Change Mitigation Framework | 150,000 | | | 150,000 |
| Capacity Building Initiative | 50,000 | | | 50,000 |
| Total Financing/Costs | 1,000 000 | 50,000 | | 1,050,000 |

E. SUPPLEMENTARY INFORMATION AND MATERIALS

10. Additional Information:

In addition to the project preparation activities financed by the grant, AFD, and AusAid will finance institutional and other studies.

AusAID will finance a study/TA to determine, establish and help operationalize the institutional arrangement for the ownership, and operation and management of the Cebu BRT.

Annex 1

Detailed Budget (in US\$)

| Description | Unit | Quantity | Unit Rate (US\$) | Amount (US\$) | | | |
|---|-------|----------|---------------------|------------------|--|--|--|
| A1+A2: Technical Feasibility Study + Climate Change mitigation framework | | | | | | | |
| Study Duration | Month | 15 | | | | | |
| | | | | | | | |
| Remuneration: | | | | | | | |
| Foreign experts including, i.a. - Project Manager - Institutional development expert - Design specialist - Service and operations planning specialist - Communications and branding manager - Financial and economic planning - Traffic operations - Environmental specialist - Social scientist | PM | 25 | \$20,000 | \$500,000 | | | |
| Local experts | PM | 45 | \$5,000 | \$225,000 | | | |
| Support staff (secretary + technician) | PM | 50 | \$1,000 | \$50,000 | | | |
| Reimbursable: | | | | | | | |
| International return flights | Trip | 10 | \$2,000 | \$20,000 | | | |
| Local transportation | Month | 15 | \$2,000 | \$30,000 | | | |
| Allowances (foreign experts) | PM | 20 | \$3,000 | \$60,000 | | | |
| Allowances (local experts) | PM | 10 | \$1,000 | \$10,000 | | | |
| Accommodation (foreign experts) | PM | 20 | \$1,500 | \$30,000 | | | |
| Sub-Total | | | | \$150,000 | | | |
| Miscellaneous Expenses: | | | | | | | |
| Communication | Month | 15 | \$200 | \$3,000 | | | |
| Production of reports and documents | Month | 15 | \$500 | \$7,500 | | | |
| Office rental and operating costs | Month | 15 | \$1,000 | \$15,000 | | | |
| Sub-Total | | | | \$25,000 | | | |
| Total | | | | \$950,000 | | | |
| A3: Capacity Building Training | | | | 50,000 | | | |
| Grand Total | | | | 1,000,000 | | | |