

October 27, 2012

**Response to Comments from Germany and Japan on the Approval by Mail: CTF
Philippines: Cebu Bus Rapid Transit Project (IBRD)**

DEU Comments

Comment: M&E component: In our understanding, monitoring and evaluation should typically be a task of the implementing MDB and part of project administration. Hence it is not clear to us why a significant part of the CTF funds should be used for M&E in this case. Furthermore, the mode of delivery is unclear (will the PEA carry out M&E, or a consulting firm or...?). → **We kindly request clarification and justification for the use of CTF funds for M&E.**

Bank Response:

We agree that monitoring and evaluation should be a task of the implementing unit. As part of project management, the Department of Transportation and Communications has set up a National Program Management Office (NPMO) to oversee implementation of the BRT plans, policies and standards at the national level and a Cebu based satellite office (Project Implementation Unit--PIU) to manage day-to-day implementation. The functions and responsibility of the NPMO include planning and evaluation, resource mobilization, implementation, monitoring and reporting and related activities. One of the specific tasks of the PIU is to develop and establish a project monitoring framework. As part of M&E, a number of studies are expected to be carried out during implementation including:

- Household surveys
- Travel time surveys
- Origin-destination surveys
- Focus group discussions
- User satisfaction surveys
- Emissions and air pollution surveys
- Accident data analysis
- Communication and consultation
- Other related studies

While the NPMO and the city based PIU will be in charge of designing and planning surveys, developing data collection instruments and data analysis, the actual task of data collection will be contracted out to specialized consultants, firms and education institutions. Most of these data collection efforts are required on a periodic basis and are best accomplished on an as-needed basis by consultants. Monitoring and

evaluation will be managed and directed by the Project Implementation Unit as part of project administration.

The funding allocated for Monitoring and Evaluation under the Project will: a) finance data collection efforts; and b) strengthen capacity of the National PMO and PIU to perform these tasks on a regular basis, over and beyond the project life.

In general, CTF financing has been directed to enhance critical elements of the project that have known to be overlooked in other similar BRT investments in countries. Proper monitoring and evaluation of the myriad benefits of an integrated BRT system is a challenging, complex, and often costly task, and thus may be given short shrift by local project implementing agencies whose natural focus is on delivering the project itself. Given both the CTF and the Cebu BRT project objectives of promoting the benefits of BRT in the Philippines and around the world, careful monitoring and evaluation of project benefits will be crucial to provide a strong analytical foundation for BRT planning and promotion efforts in similar contexts. Dedicated resources under the project for specific data collection effort would be a motivation for the implementing agency to perform these tasks in a comprehensive manner and respond to specific project requirements.

More broadly, the task of carrying out a rigorous GHG reductions calculation is a technically challenging task that requires a significant commitment of time and resources. Given the global public good nature of emissions reductions, there is a clear case for lightening the financial burden of these tasks for local project implementation bodies in Cebu. For this reason, we see strong overlap between the broad goals of the CTF and the use of CTF financing for monitoring and evaluation of emissions reductions in particular, and project benefits in general.

Comment: With regard to the **BRT capacity calculations** we would like to suggest to verify soundly that the calculated capacities are also able to carry future demand. Past experience with BRT systems has shown that demand can quickly outgrow capacity. Increasing capacity later can be very costly and complicated. (Also the option for moving on to rail based systems later-on could be assessed.)

Bank Response:

The capacity of the BRT system, as proposed is sufficient to handle projected capacity through the forecast year, with a margin. Should demand grow beyond projections, the following approaches are possible with a bus based system:

- Use of larger buses, (e.g., 18.5 meters) compared to the 13.5 meter buses planned for the initial BRT phase
- Complete dedication of the BRT alignment on an at-grade median running way rather than partial mixed traffic operation with traffic engineering

strategies; This would require extensive resettlement but is physically possible and affordable under the right conditions;

- Selected grade separations through particularly troublesome intersections
- Construction of bypass lanes around selected stations, with attendant resettlement strategies
- All the above

As such we are confident that the station capacity at each location is sufficient within the design life of the system. Beyond the design life, true for both the bus way and stations, we would expect other measures to have been introduced within Cebu City that would spread demand, for example BRT along the Coastal Road (connecting Talisay and Mandaue/Lapu-Lapu) and along MJ Cuenco (connecting Downtown to Mandaue).

It should be noted that in mixed traffic, a rail-based solution will have less capacity than BRT, be slower, cause many more accidents and be much more unreliable. A rail-based rapid transit line constructed on the same alignment proposed for BRT but in a totally dedicated transitway will be orders of magnitude more expensive to construct and offer little if any capacity advantage because of intersections that still must be traversed.

Construction of a totally or even partially grade-separated, dedicated rail-based mass transit line on the BRT alignment could provide significantly more capacity than a two lane BRT line and offer speed and reliability advantages but, costing orders of magnitude more than even the at-grade rail alternative, would be unaffordable in the context of Cebu. Moreover, if Taft Avenue in Manila is a guide, an elevated MRT line on the alignment will significantly degrade the environment around it, creating an even greater incentive for energy intensive development sprawl.

Comment: When concessioning the bus lines, environmental aspects should be taken into consideration, e. g. through preference of bidders with modern low emission / low fuel consumption buses.

Bank Response: We fully agree with this consideration. The proposed buses to be operated along the BRT corridor will be procured through a competitive contracting process and the standards will be specified in the contracts to be developed by the project implementing unit. Environmental considerations will be part of the standard setting arrangements.

Comment: If an increase of property values along the BRT lines is expected, is there a possibility for siphoning these value increases for the benefit of the project?

Bank Response: Yes. Under the Local Government Code, the Cebu City government can impose a special levy on specific areas where land values have appreciated due to infrastructure and transport improvements such as the BRT. The special levy can be

added on to the real property taxes that property owners along the BRT corridor would have to pay annually. Another route would be through an updating of the schedule of market values and/or the assessment rates for certain land classifications and actual uses that form the basis for computing real property taxes. This second option, however, is more arduous and politically sensitive as it would apply city-wide and not to particular geographical areas such as the BRT corridor. At the moment, Cebu City is updating its Comprehensive Land Use Plan and its adoption and approval can trigger a review and subsequently, an updating of its real property tax regime.

Comment: Role of jeepney-industry: The appraisal document acknowledges the crucial role of the jeepney industry and its transformation towards BRT. However, the stakeholder process and the options how jeepney operators can be integrated into the system are not yet elaborated in detail (ref. chapter V); in particular potential costs are not clearly identified. This also refers to the question, if and how jeepneys will be integrated as feeders for BRT – in particular whether an integrated ticketing system is envisaged. The costs of such integration might be substantial and threaten the assumptions on cost coverage. Experiences in South Africa have shown that resistance from informal operators can substantially delay planning and reform processes. Therefore we propose:

- To elaborate a **comprehensive risk mitigation plan with emphasis on the existing and future role of jeepney operators (based on chapter V “Key Risks and Mitigation Measures) with clear information on stakeholder involvement** and potential financial risks as well as risks related to timely project implementation)

Bank Response:

The process with the Jeepney sector is ongoing. There has been an in-depth study of the sector and dialogue with the stakeholders during both the Prefeasibility Study and the just-completed Feasibility Study. The routes which would be impacted have been identified, along with the number and holder of the franchises on each route¹.

Extensive focus group discussions have been held with the Jeepney drivers to understand the profile of drivers, their earnings, their attitude to the job, their education level and skills, their capacity and interest in alternative jobs, and their general concerns. Similarly, focus group discussions have been held with Jeepney owners to understand such factors as how they finance their vehicles, their attitude to investment, the linkage to household income, and their interest in participating as shareholders in bus operating companies rather than as direct vehicle owners. The consistent message from the Jeepney driver sector is that they do not like the job, but it provides a source of income to their family. There is a high willingness to consider alternative types of work, either with the BRT system, or outside the sector if they can receive some retraining.

¹ Approximately 22 routes will be affected by the operation of the BRT, with 1,191 franchise, 912 operators and around 2600 drivers and their relievers.

The Jeepney owners are more diverse, with some willing to consider alternatives, but for others the Jeepney income is bound up with the daily household finances.

Extensive discussions have been held with the LTFRB, who issue the franchises and regulate the system. It is already agreed that there is time and opportunity to minimize the number who would be forcibly displaced and to arrange alternatives for them.

The project effort is on minimization of economic displacement and income loss, and livelihood restoration through the development of a menu of options. The menu of options can be categorized into three sets. These three sets are not mutually exclusive.

I. Within PUJ Industry Measures:

- a) Route restructuring (shortening, change in streets traversed, extension of destination) to serve as feeders to the BRT and transferring some of the affected PUJs to unserved or underserved feeder routes; and
- b) LTFRB have indicated their willingness to prioritize displaced Jeepneys for different forms of franchise which they can grant – employee/commuter services, schools services, goods carriage for hire
- c) Moratorium on entry to the Jeepney sector so that those displaced by the BRT have first call on new franchises and driving jobs. These arise as franchises are not renewed, or in expansion areas of the city.

II. Exit PUJ Industry and Transfer to other Segments of the Transport Industry

- a) *Organization of PUJ Operators to bid and operate one or several of the eight routes for the BRT or the feeder routes.* PUJ Operators would be able to organize themselves into a cooperative or corporate entity, sell their units, secure financing to purchase buses, obtain franchises for the BRT, operate the route, and manage the entity;
- b) Opportunities for jobs in the BRT system for those wishing to exit Jeepney work; and
- c) *Move to other sectors/segments of the larger transport business such as school bus operations, garage to terminal, trucks for hire.* PUJ operators would be able to retool their existing units (into trucks or closed type vehicles), sell their units, and purchase new ones (vans)

III. Exit PUJ Industry and Business/Role Transformation

- a) *Compensation for Loss of Franchise, Income, and Units.* Through a fair and transparent procedure, government buys back the franchise and units and compensate operators for their loss of income. PUJ operators searches for new investment opportunities while the drivers and relievers look for other employment.
- b) *Retraining in other skills for those wishing to leave the transport sector completely*

- c) *Supply of Services to the BRT Operator.* PUJ Operators organize themselves into human resources corporations providing human resource services to the BRT owner and/or operator. After retraining, their drivers can constitute the pool of mechanics, security, janitorial or cleaning services, ticket dispensers, etc)
- d) *Direct Employment of the Displaced Drivers or their Immediate Relations into the BRT Entity.* First preference can be given to qualified drivers and their immediate relatives for hiring by the BRT owner or operator
- e) Gradual swapping of Jeepney vehicles and drivers so that by the time BRT commences, the PUJ lines which must be reduced or terminated are populated mostly by those willing to accept alternatives, while those wishing to continue as Jeepney owners/drivers have migrated to other routes and continue unaffected.

It is not yet clear if all who might be displaced by the BRT could be fully accommodated through the above arrangements. Nonetheless, it is clear that at least a very significant proportion can find solutions acceptable to them and which maintain their capacity to support their families.

The main point is that the three or so years to BRT launch will be used constructively, and it will be avoided that there is a 'big bang' in which large numbers of vehicles and drivers would be forcibly displaced. It must again be stressed that LTFRB have fully engaged with this issue already, and indeed have themselves come up with some of the suggested mitigation measures.

It should be noted that less than 20% of Jeepney owners or drivers belong to a union or association. While unpopular measures or failure to engage with the sector would surely bring about a negative reaction (quite understandably), there is not an entity to lead agitation or to make strong demands. Perhaps more importantly, there is not an association whose power base and financing depends on fees from an oversubscribed membership, and hence negotiation with the sector can be based on the real needs of the owners, drivers and associated workers, and not on beneficiaries who seek to protect their position.

Finally, the nature of Jeepneys is such that integrated ticketing – i.e. a single fare document with an integrated tariff - is not a practical option. Feeder routes using buses or minibuses with door-based boarding could easily be integrated into a ticketing system. By contrast, Jeepneys could only be integrated with the simplest of systems – paper tickets with visual inspection; or pay for the BRT and travel for free on the Jeepney.

Comment: Cost coverage: According to para 67 in the appraisal document and para 23 in Annex 7, the system is expected to be financially sustainable over its operating life, based on fare and advertisement revenues. However, the net margin is only 3% related to overall revenues – any substantial change in fuel or labor costs, or changes in ridership may undermine this assessment. Recent experiences with BRT in South African cities show that additional funds – either from city or national sources – might be

necessary to maintain the BRT system. As the specific situation in the Philippines (without any BRT experience) provides no reference, we do propose:

- the **development of a contingency plan that sets out how additional revenues could be generated within the BRT-system** itself and/or how public funds/subsidies might be used to co-finance the system. This shall also include specific provisions in case initial ridership assumptions do not materialize.

Bank Response:

It is correct that fares do cover cost. In the opening year revenues exceed cost by 3% but like any business first year costs can be unrepresentatively high as much of the fixed and semi-fixed costs are incurred then. However over the entire project the financial revenue cover all costs and exceed by 15% (much greater than 3%). Therefore there is a healthy profit margin to accommodate reasonable increases in prices including fuel and labour. In addition there are sensitivity tests which cover contingencies whereby patronage reduces by 10%, revenue reduces by 10%, and costs increases by 10%. In all cases included the cases combined the project remains feasible financially.

It should also be noted that fare revenue is conservative (as explained below) and advertising revenue was very conservative. The model is also fairly high on costs. Overall the financial model can be regarded as fairly conservative. It should be added that the private sector can possibly find further revenue sources beyond fare and advertising over the appraisal period. These were omitted for conservatism.

It is also very important to point out that fuel costs are predicted to raise 4% per annum (real rate) and fare only 2% per annum. Therefore over time fuel rises greater than fare by 2% per year. Over the appraisal period this becomes significant. (This widening gap between fuel and fare was analyzed historically and therefore the 2% difference is evidenced based).

Although oil prices have been stable in the past few years and currently there is slack in OPEC supply, fuel price stability is a valid concern over the medium to long term (and possibly over the short term). It is right to suggest that a mechanism should be placed so that fare prices rise to accommodate a suitable profit margin. As stated above, this has already been accommodated in the model; however what the model cannot predict is very large spikes in oil prices. On the issue of labour costs, the model predicts that real wages rise over time, however, if real wages rise rampantly, real incomes rise and people can afford higher fares. This should then be adjusted in the real economy. As in all businesses, in the event that price of inputs rise, the end price of products must also rise (or a subsidy needs to be provided).

Additionally, the financial stability of the Cebu BRT is managed at different levels, which collectively are deemed to be quite robust.

- a) The financial analysis has been based on a conservative approach to revenues and costs. While higher-end ridership was considered for the system design, to ensure that the Cebu BRT could cope with higher than anticipated ridership levels or occasional peaks, lower-end ridership and revenue forecasts were considered for the financial analysis. This deliberately removed 'optimism-bias' from the revenue forecasts, and built in a certain degree of robustness. Further, a revenue leakage of 10% was assumed for the financial forecasting. In practice, such a high level of leakage across the system would not be tolerated by a BRT System Manager. Overall, we consider that revenue ridership and revenue forecasts are quite robust.

A similarly conservative approach has been taken on the cost calculations. For example, vehicle-kilometers operated and staffing levels have been calculated on a full basis, whereas an efficient and incentivized operator would optimize schedules and rosters both daily and over time periods (week, month). The actual BRT operators would be able to gain some percentage points cost reduction in operational costs across the fleet.

- b) A BRT System Manager is being established (nominally referred to as TransCebu JV). This will be a corporate entity with a clear business focus, and organized to function along commercial lines albeit with societal parameters and the guiding BRT design. The Board of TransCebu JV will be drawn from both the main public stakeholders and the business community. The concept draws strongly from lean organizations such as Ahmedabad's Janmarg and Pereira's Megabus.

All bus operations and support services will be outsourced to the private sector. In general, this will be a competitive process, although the initial bus operations contracts may need to be negotiated given the current total absence of bus operations in Cebu. This will maintain a competitive pressure on costs throughout the lifetime of Cebu BRT.

It is still prudent to have contingency instruments available, even if they are not mobilized.

One of the early tasks of the Cebu BRT PIU is to detail a comprehensive Business Model for Cebu BRT. This is primarily the due diligence, business planning and negotiations between DOTC and Cebu City Government, prior to entering into the Joint Venture that will be TransCebu JV. This will include a thorough review of business

approach, organization, contracting strategy, financials, risk assessment and assignment, and fiscal management processes. Based on this work, decision to establish mechanisms for financial support, in case of a shortfall will be established.

While the point of contingency planning is accepted, the South African case is of limited relevance in the Philippines

- a) BRT implemented in South African cities must deal with travel patterns that are the result of the apartheid legacy. Commuting distances are long, flows are tidal and inter-peak travel demand is relatively low. This is in contrast to Cebu where journeys are relatively short, there is reverse-commute demand, and there is day-long traffic including a very active shopping and market activity.
- b) The minibus-taxi unions have an extremely powerful position and needed to be bought out at very high price. While not underestimating the potential resistance from the PUJ sector in Philippines, the situation is not comparable.
- c) The system cost turned out to be very much higher than forecast when it came to implementation. In Cape Town, the estimated cost of 1.4 billion Rand grew to an actual cost of 4.1 billion Rand for the first phase (late-2010 estimate provided by the city). The design approach taken in Cebu significantly mitigates the risk of such overruns.

1. **Necessity of CTF loan in this project**

Although the project necessity is clear, the necessity of CTF loan in this project is not necessarily clear. As mentioned in Page 20, “once constructed, the BRT system is expected to be financially sustainable over its operating life”. Although Financial Internal Rate of Return (FIRR) is not included in the document, it says that expected total revenue 881.6 million PHP and expected total recurring costs are 854.5 million PHP, so it can earn 27.1 million PHP already at opening year of 2015. Based on this information, financial viability of this project is considered high. CTF financing terms for this project is set as 0.75% service charge, maturity of 20 years including 10 year grace period. The justification of this concessional CTF loan to improve the project’s financial viability is not clear.

It is understood that CTF is designed to be used for the project which has low financial viability but significant benefit as climate change mitigation. Since the funding of CTF is limited, it is advised that the applicability of CTF to the proposed project is duly examined (the BRT project could be viable without CTF contribution as mentioned in Page 21).

Bank Response:

The Republic of the Philippines is borrowing money from the World Bank, CTF and the French Development Agency for investment in the public transport system (including BRT infrastructure, ITS, ATC and traffic management, and other project support). The project is structured as a PPP with public sector ownership of all transitway infrastructure, facilities, and systems and the private sector providing rolling stock, operations and support services.

The public sector is responsible for: a) the provision of infrastructure, busways, bus stops and stations; b) planning, regulating, operating and controlling the BRTS. Overall system management remains with the public sector entities.

The private sector is responsible for bus procurement, bus operations, fare collection, and other support services.

It is expected that BRT construction will be the public sector responsibility (for which funding is being provided) **but** once constructed, all services will be provided by the private sector and cost recovered from the user fees.

The financial viability is only considered positive for the recurring (or operating cost). The CTF finance, alongside other loan components, is for capital expenditure which cannot be recovered through revenue. As such the CTF component is an essential part of the funding mix that ensures that investments are undertaken.

Thus, once the infrastructure is provided, the system is expected to generate sufficient revenues to be self financing. In the project's opening year, revenues are sufficient to cover all **recurring costs** including bus purchase or lease cost, vehicle operating costs (fuel, drivers, service personnel, maintenance, tyres etc), and the costs of management of the BRT system (system managers, control centre personnel, terminal staff, fare collection cost, infrastructure maintenance, rapid response vehicles). Once constructed, the scheme is thus expected to be financially sustainable over its operating life. However, the scheme cannot recover its initial capital costs.

2. Careful attention to existing jeepney operators and motorcycles

As pointed out in Page 18, it is expected that resistance from current jeepney operators and motorcycle drivers could be a strong obstacle to the project. Also, after the project is completed, it is foreseen that jeepney operators would increasingly apply license to operate in newly established BRT related routes. Therefore it is advisable to make sure that LTFRB (Land Transportation Franchising and Regulatory Board) will not issue any additional licenses to jeepney operators. It would be necessary to introduce strong regulatory enforcement in order to make the Project successful.

Also, it is expected that, as a result of introducing BRT, numbers of jeepneys and motorcycles would be reduced to optimal level. Therefore, it is advisable to consider training program for jeepney and motorcycles operators/drivers so that they could be transferred to other business activities.

In addition, the local election will be held in May, 2013. DOTC and the World Bank should minimize the effect of election with regard to this project.

Bank Response:

Importance of jeepney industry. There is already a moratorium on issuing new jeepney franchises and any existing franchises for renewal will be reviewed to determine their relationship to the BRT before any action is taken. It is accepted that a strong regulatory enforcement is required and this is included within project planning – to both protect the BRT revenue and to offer an optimized public transport system to users. The training of displaced jeepney drivers is one of the mechanisms being considered through a structured approach to negotiating with the industry. The issue of providing alternate

incentives to jeepney operator and drivers is discussed in detail earlier in response to another reviewer comment.

Political impacts. The project has strong support from all political parties in the Cebu city. The project has already been endorsed by the City Council and the Regional Development Council. A post feasibility study consultation plan has been developed that seeks to minimize political exposure whilst enabling project progress to be made – this, in particular, focuses upon the jeepney industry and right of way acquisition.

Motorcycles and 3-wheelers. The 3-wheelers for hire are already not allowed on the national roads on which the BRT would operate (they are permitted to cross at junctions), so the BRT has no impact on them.

The project does not take into account the illegal motorcycle taxis, for two reasons: a) on the one hand, they are illegal and unregistered, so there is no question of their 'right' to work being extinguished; and b) on the other hand, the BRT will not impede their continued illegal operation in any way, other than offering some of their customers a better and safer option.