

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC537

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| Project Name | Ho Chi Minh City Green Transport (P126507) |
| Region | EAST ASIA AND PACIFIC |
| Country | Vietnam |
| Sector(s) | General transportation sector (80%), Public administration- Transportation (20%) |
| Lending Instrument | Specific Investment Loan |
| Project ID | P126507 |
| Borrower(s) | State Bank of Vietnam |
| Implementing Agency | UCCI |
| Environmental Category | B-Partial Assessment |
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| Concept Review Decision | Track II - The review did authorize the preparation to continue |

I. Introduction and Context

Country Context

Economic growth and poverty reduction: Vietnam has achieved remarkable development success over the last 25 years. Reforms since 1986 have transformed the country from a centrally-planned to a more market-oriented economy, spurring rapid economic growth (average 7.3% during 1990-2010), increased per capita income (US\$1,130 in 2010), and significant poverty reduction (58% in 1993 fallen down to 14.5% in 2008). Several original MDGs have been attained, and a few more are likely to be achieved by 2015.

The role of Hanoi and Ho Chi Minh City: While economic growth has been based primarily on Vietnam's abundant natural resources (e.g., fisheries, forestry, and mineral resources), over the years, industrial manufacturing has gained an important share of both employment and economic output, and in this rapid industrialization and urbanization process, Hanoi and HCMC (the country's two largest cities) have established themselves as the main poles of high economic growth and industrial concentration, with HCMC and the Southeast Region hosting nearly half (45%) of overall

manufacturing production in the country.

National competitiveness and urban infrastructure: To continue fostering growth and achieve the goal of becoming a successful middle income country, the national government is taking further steps to strengthen the country's competitiveness. Understanding the importance of Hanoi and HCMC to the national economy, one focal area is improving the quality of urban infrastructure and services in both cities. Developing sustainable urban transport systems for Hanoi and HCMC has thus become a national priority.

Sectoral and Institutional Context

The growing challenge of urban mobility. Rapid economic development and population growth are shaping Hanoi and HCMC into increasingly sprawling cities, while their respective transport infrastructure struggles to cope with these changes. Historically, both cities had enjoyed good mobility thanks to the widespread use of motorcycles and the relatively low levels of car ownership and car use. However, in the last decade, as incomes have continued rising, car ownership and car use have increased to the point that congestion at peak travel hours has started to become problematic. Given the limited road space available, the imminent risk is that a broader scale replacement of motorcycles by cars will bring about an escalation of congestion levels to the point of thwarting the overall functionality of both cities' transport systems.

A new emphasis on public transport. Aware of the challenge, in 2004 the Ministry of Transport (MOT) --the ministry in charge of nationwide management of road, railway, inland waterway, maritime and civil aviation transport-- identified the improvement of public transport services, and the strengthening of long term urban transport planning, as key government priorities to enhance mobility in Hanoi and HCMC. It was expected that public transport systems can become an efficient travel alternative for a majority of the population in the country's largest cities, preventing unnecessary private vehicle use, while helping guide urban development towards more sustainable patterns. Soon thereafter, both Hanoi and HCMC began analyzing the feasibility of developing metro systems as the anchor of their future public transport services, and, subsequently, both cities incorporated metro networks into their urban development master plans. Currently, both Hanoi and HCMC are at different stages of the construction of their first metro lines.

BRT in Vietnam. The development of a metro network, however, is an endeavor that typically spans over decades, while the need for efficient public transport solutions in Hanoi and HCMC is a pressing issue today. Given the great success of several bus rapid transit (BRT) systems in a number of developing countries, there has been a number of recommendations (made by international and local experts) that major cities in Vietnam consider BRT as a means to quickly tackle the growing travel demand and also cultivate public transport ridership which will complement its longer term metro investments. Accordingly, with support from the Bank, Hanoi and Danang have started developing their first BRT lines. The proposed Ho Chi Minh City Green Transport Project ('the Project') will develop the first BRT line in HCMC, incorporating lessons from Hanoi and Danang.

Urban development in HCMC. HCMC is located on the banks of the Saigon River, 60 km away from the coast of the South China Sea and 1,760 km south of Hanoi. With over 7.3 million habitants in its city proper and over 9 million habitants in its metropolitan area, HCMC is the largest economic center in the country, generating roughly 20% of the national GDP. The city exhibits a monocentric structure, with the highest population densities reaching 500 habitants per hectare in the central area, and a citywide average of 150 people per hectare. However, much of the city's

population and job growth in the past decade has taken place in the city's periphery, particularly to the northwest of the city center in the Tan Binh and Go Vap districts near the airport (see Figure 1 above). Recently, there has been significant development in the central business district (CBD), located in District 1, particularly office towers. Further expansion of the CBD has been planned to take place on the east bank of the Saigon River in District 2, to preserve the historic neighborhoods in District 1.

The prominence of the motorcycle. By far, motorcycles are the predominant mode of transport, accounting for 61.8% of all trips in the city. It is estimated that 92% of all households have at least one motorcycle, and that there is, roughly, one motorcycle for every two habitants in the city. Motorcycle ownership grew steadily during the 1990s and took off around 2000, as a result of the rapid growth in incomes, the reduction of import tariffs on motorcycles, and the parallel growth of HCMC's population. Their popularity can be explained as the product of different factors: i) motorcycles offer the same on-demand and door-to-door service as cars at a fraction of the cost; ii) motorcycles offer flexibility to park in almost any location; iii) HCMC's moderate climate allows for all-year use of motorcycles; and iv) other affordable alternatives, like buses, have been neglected for many years, and in spite of recent improvements, still do not offer competitive services.

The growing car population. While only a small fraction of households in HCMC owns a car, the growing number of cars is rapidly becoming a problem. Private car ownership had been discouraged by heavy import duties and registration fees which roughly tripled the price of a landed car. But as economic growth and incomes continue rising, car ownership is becoming evermore accessible. The number of registered cars in HCMC escalated from 131,000 in 2001 to 408,688 in 2009, which amounts to an annual growth rate of 13.5% in that period, and the expectation is that the real explosion of car ownership is yet to come. While the streets of HCMC provide for efficient movement by motorcycle, the growing number of cars is aggravating congestion at a fast rate, and, certainly, a wider scale shift from motorcycles to cars would overwhelm street capacity to the point of total gridlock. Increasing cars in the mixed traffic on streets also increased safety risks to motorcycle users as well as pedestrians crossing streets.

Bus transport. Bus ridership is dramatically low in HCMC, representing only 1.4% of all trips in the city. The provision of bus services is scattered among 17 different companies, including one state owned enterprise (Saigon Bus Company -- SBC), one private company, one joint venture, and 14 private cooperatives. However, despite having so many companies, there are only 3,096 buses operating in HCMC, a figure that considerably limits the public transport coverage and the frequency that bus services can offer. To contrast with peer cities of similar size, Bangalore, India, has about 6,000 buses in operation for a population of about 7 million, and Wuhan, China, has more than 7,000 buses in operation for a population 9 million --i.e more than double the number of buses than in HCMC. In addition, the growing congestion also has a negative impact on the quality of service that buses can offer. Public officials argue that the difficulties of maneuvering in and out of curbside lanes now filled with motorcycles, to pick up and drop off passengers, slow the buses greatly. There are no statistics available on the relative speeds of buses and motorcycles in traffic, but the popular impression is that a bus trip takes twice as long as the same trip on a motorcycle, and as a result, most adults only see buses services as an attractive mode of transport for longer trips where riding a motorcycle is too stressful. Conversely, 37% of bus riders are students, some of whom are probably too young to drive or unable afford a motorcycle.

Bus subsidies. Out of 150 bus routes operating today in HCMC, 113 receive government subsidies

in exchange for serving particular areas of the city and guarantying a minimum frequency of service. This subsidy program has proved successful in raising bus ridership from 36 million passenger trips in 2002 to 360 million in 2010. However, the subsidy bill is growing at a faster rate than ridership, jumping from 40 billion VND (US\$ 2.5 million) in 2002 to 841 billion VND (US\$ 40 million) in 2010, which the HCMC government sees as a severe strain on the municipal budget. The increase in subsidy was due to a combination of factors - the growth in the number of buses and riders, inflation in the economy and slow increases in fares. Conversely, bus operators find the subsidies to be insufficient. Subsidies are calculated based on a standard cost per vehicle-km established by the government, but the operators complain that there is no systematic adjustment of unit costs in the formula. As a result, to them the subsidy seems arbitrary, with unit costs kept in check in response to the city's budget constraints rather than accurately reflecting the costs of the operations.

Transport institutions. As mentioned earlier, the national authority in relation to all transport activities in Vietnam is the MOT. Locally, the leading sector institution is the Department of Transport and Public Works (DOTPW), responsible for managing all modes of transport and urban infrastructure (water supply, public lighting, parks, etc) within the city. Bus services are regulated by the Management and Operations Center for Public Transport (MOCPT) a unit within DOTPW. The MOCPT is responsible for: i) the approval of bus routes proposed by operators; ii) the management of bus terminals and stations; iii) the monitoring of quality of service; and v) the management of subsidy programs, including payments to operators. Finally, the Traffic Police plays the key role of managing traffic (traffic signals, control centers, etc) and enforcing the transit code.

Development of rail transit system. Following the MOT's 2004 directive to improve public transport services, the DOTPW commissioned studies to prepare a transport master plan and a detailed rail transit plan. Building on this work, in 2008 HCMC's People's Committee adopted a new master plan for 2025 that called for the development of a 161 km rail transit system, including six mass rapid transit (MRT) lines, a tram and a monorail. A new agency, the Management Authority for Urban Railways (MAUR), was established primarily to oversee the construction of the MRT lines, reporting directly to the HCMC People's Committee (i.e. the MAUR is independent of the MOCPT or the DOTPW). The first MRT line, extending 19.7 km between the city center and Suoi Tien Park in District 9, was financed by the Japan Bank for International Cooperation, with construction started in 2008. The second MRT line will be 11.3 km, running from the city center to Tham Luong in District 12; the project was financed jointly by the German Bank for Reconstruction, the Asian Development Bank and the European Investment Bank, and construction is planned to start soon.

Challenges looking forward. As rapid population and economic growth are expected to continue in the next decade, most of HCMC's transport problems are only likely to get worse in that period of time. According to the 2025 Master Plan, public transport modes could capture 44% of all trips in 2025 if the six MRT lines were built, yet only 21% of those public transport trips would be conducted in the MRT system. This is to say that, even though the future completion of the first two MRT lines currently under construction will surely have a positive impact for certain sectors of the population, it will definitely not rid the city of its rising congestion and road safety issues. Moreover, by establishing the MAUR as an independent entity from the DOTPW, the HCMC government seems to have increased the risk that the MRT system will not be effectively integrated with the existing bus services, or more generally, that the MAUR will not think of the MRT lines as only one component of the city's larger public transport system that needs to be carefully

coordinated with others. Certainly, only a seamlessly integrated public transport system, incorporating MRT, BRT and other bus services, as well as high quality facilities for pedestrians and bicyclists, will represent a realistic alternative for citizens to leave their motorcycles at home and refrain from purchasing a car.

Modernization of bus services. Recognizing that MRT is only part of the solution and that bus services are bound to retain the lions' share of public transport trips, in October of 2010 the HCMC government requested the Bank to provide support for the modernization of the city's bus system and the renovation of the bus fleet. Since then, under an AusAid TF funded TA project, Integrated Planning for Urban Transport in HCMC, Bank experts have visited HCMC on several occasions, interacting with different public officials to better understand the sector and explore the different alternatives to improve bus services in the city. The proposed Ho Chi Minh City Green Transport Project would serve as a platform for this modernization process.

Relationship to CAS

The proposed Project is consistent with the FY2012-FY2016 Country Partnership Strategy (CPS), which will support implementation of Vietnam's five-year Socio-Economic Development Plan for 2011-2015. The project engages with all three priority 'pillars' defined in the CPS: i) strengthening Vietnam's competitiveness in the regional and global economy by improving public transport services in the country's largest economic growth pole; ii) increasing the sustainability of that growth process in HCMC by contributing to the development of a multimodal public transport system that can curb carbon-intensive private vehicle use; and iii) broadening access to economic and social opportunities by providing efficient and affordable public transport services that will improve citizens' --particularly, low income citizens'-- access to jobs and social services. The Project would also be aligned with the pillars of core and transformational engagements outlined in the World Bank Group Infrastructure Strategy Update, FY2012-2015.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed Project Development Objective (PDO) is to increase accessibility to job opportunities and urban services for citizens residing in the south-western side of the city and other adjacent areas to the project corridor, by providing an alternative that is safer, more secure, more efficient, integrated with land development along the corridor and integrated with the proposed metro lines, and generates fewer emissions.

Key Results (From PCN)

Achievement of the PDO will be evaluated using the following measures:

- (i) reduction in average commute times between select origin-destination pairs,
- (ii) increase in potential job opportunities/urban services accessible by public transport users within 45 minutes total journey (walking + bus) time,
- (iii) reduction in average energy consumption and GHG emissions (per passenger-km and in absolute terms),
- (iv) reduction in the number of traffic accidents along the project corridor, and
- (v) qualitative improvement in public transport convenience, comfort, safety, and security.

III. Preliminary Description

Concept Description

An Integrated BRT Corridor: The project is focused on development of HCMC's first BRT line on Vo Van Kiet Highway (VVKH) --an east-west corridor that runs parallel to the Tau Hu-Ben Nghe canal cutting across HCMC-- to improve access from the south-western side of the city and other adjacent areas to the VVKH into the CBD in District 1 and its proposed area of expansion in District 2 . The VVKH was selected over other potential BRT corridors in the city primarily due to two key factors: (i) the potential high-impact this BRT corridor may generate as VVKH links links the traditional CBD areas, where many jobs and urban services concentrate, to the fast developing areas in both the east and the south-west of the city; (ii) the high-probability for successful and quick implementation, given its availability of space to accommodate a fully equipped BRT line and complimentary facilities for bicyclists and pedestrians without significant resettlements. Selection of the corridor for BRT development has been strongly endorsed by local institutes and local experts through several participatory planning workshops carried out by the HCMC government with support from the Bank (and sponsored by ECO2 Cities Initiatives and AusAid), including a workshop on "greenway" development where strategic elements for integrated urban development along the corridor and design concepts of key elements of the BRT line have been discussed.

Institutional Strengthening: The Project would also include a wide range of institutional strengthening activities essential to the modernization of bus services in the city, for instance, developing strategic analyses to achieve the efficient integration all public transport services in the city (regular buses, BRT, MRT), and to eventually establish a metropolitan Public Transport Authority responsible for their overall coordination. Training and other capacity building activities would also be carried out on key topics like international best practices in planning and operating modern bus systems, transit oriented development, and public-private partnerships in urban transport.

Project Components: It was agreed in principle at the time of project identification that the initial project scope will include the following two components (the details and specific size of the components/sub-components subject to change during further project preparation):

a. **Component 1: BRT Corridor Development.** This component will finance the development of a demonstration BRT line on the VVKH, with an estimated length of 25 km, adopting a sustainable transport approach that will integrate investments in: i) the rehabilitation and improvement of road infrastructure on the VVKH, so as to support BRT operations; ii) the construction of complementary BRT infrastructure, such as bus depots, terminals, stations, bicycle and motorcycle parking facilities, etc; iii) the procurement of specially-designed alternative fuel buses; iv) the implementation of a broad range of intelligent transport systems (ITS), including advanced traffic management systems (i.e. smart traffic signals, cameras, e-police, etc), and advanced bus operation management systems (i.e. global positioning systems, communication equipments, etc); and v) complementary non-motorized transport infrastructure to facilitate access to the BRT services, such as pedestrian bridges and/or tunnels, bikeways, sidewalk improvements, etc., as well as public spaces like parks and plazas, and landscaping.

b. **Component 2: Institutional Strengthening.** This component will finance institutional strengthening and capacity building activities essential to the successful implementation of the BRT line, and, more broadly to improve transport and urban development planning in HCMC. The component will include the development of: i) training programs for the MOCPT, the DOTPW and other relevant government agencies in project management, urban transport planning and public

transport operation; ii) strategic support activities by technical experts on the operation of the BRT line; iii) prefeasibility study of the integration (fare, operational, physical) of the BRT line with other bus services in the city and the future MRT lines; iv) comprehensive feasibility study on establishment of a Public Transport Authority overseeing all public transport services in the HCMC metropolitan area; v) policy guidelines to promote transit-oriented development along VVKH corridor; iv) prefeasibility study of public-private partnership (PPP) opportunities and additional financing mechanisms for the expansion of BRT and MRT systems and development of complementary facilities; and vi) prefeasibility analyses of additional BRT lines and/or other follow-up investments.

The current estimation for total project cost is US\$ 187,987,000, with Component 1 costing US\$ 182,987,000 and Component 2 costing US\$ 5,000,000. The Bank's contribution to the financing of the project totals US\$ 152,250,000, including an IBRD loan for 142,250,000 and a PPTAF grant for US\$10,000,000. The local counterpart's contribution totals US\$ 35,737,000. Table 2 below provides the details of this cost estimation and financing structure by project component. The estimation does not include land acquisition and resettlement, which will be financed directly by HCMC government.

Table 2: Estimated Project Costs and Financing Structure (US\$)

| | World Bank (IBRD) | Local Counterpart | Total |
|--|-------------------|-------------------|-------------|
| Component 1: BRT Development | 142,250,000 | 40,737,000 | 182,987,000 |
| Component 2: Institutional Strengthening | 5,000,000 | | 5,000,000 |
| Total | 142,250,000 | 45,737,000 | 187,987,000 |

IV. Safeguard Policies that might apply

| Safeguard Policies Triggered by the Project | Yes | No | TBD |
|--|-----|----|-----|
| Environmental Assessment OP/BP 4.01 | x | | |
| Natural Habitats OP/BP 4.04 | | x | |
| Forests OP/BP 4.36 | | x | |
| Pest Management OP 4.09 | | x | |
| Physical Cultural Resources OP/BP 4.11 | | | x |
| Indigenous Peoples OP/BP 4.10 | | x | |
| Involuntary Resettlement OP/BP 4.12 | x | | |
| Safety of Dams OP/BP 4.37 | | x | |
| Projects on International Waterways OP/BP 7.50 | | x | |
| Projects in Disputed Areas OP/BP 7.60 | | x | |

V. Tentative financing

| Financing Source | Amount |
|---|--------|
| Borrower | 45.74 |
| International Bank for Reconstruction and Development | 142.25 |
| Total | 187.99 |

VI. Contact point

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