

# **Bangladesh: Greater Dhaka Sustainable Urban Transport Project**

Project Name	Greater Dhaka Sustainable Urban Transport Project				
Project Number	42169-013				
Country	Bangladesh				
Project Status	Approved				
Project Type / Modality of Assistance	Loan Technical Assistance				
Source of Funding / Amount	Grant 0287-BAN: Greater Dhaka Sustainable Urban Transport Project				
Amount	Global Environment Facility	US\$ 4.60 million			
	Loan 2862-BAN: Greater Dhaka Sustainable Urban Transport Project				
	Ordinary capital resources	US\$ 100.00 million			
	Loan 2863-BAN: Greater Dhaka Sustainable Urban Transport Project (A	DF Hard Term)			
	Asian Development Fund	US\$ 15.00 million			
	Loan 2864-BAN: Greater Dhaka Sustainable Urban Transport Project				
	Asian Development Fund	US\$ 45.00 million			
	TA 8072-BAN: Transit-Oriented Development and Improved Traffic Management in Gazipur City Corporation				
	Japan Fund for Poverty Reduction	US\$ 1.00 million			
	Loan 8270-BAN: Greater Dhaka Sustainable Urban Transport Project				
	Agence Francaise de Developpement	US\$ 45.00 million			
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth				
Drivers of Change	Partnerships Private sector development				
Sector / Subsector	Transport - Transport policies and institutional development - Urban public transport fraffic management	oort - Urban roads and			
Gender Equity and Mainstreaming	Effective gender mainstreaming				
Description	The project will contribute to develop a sustainable urban transport system (UTS of north Greater Dhaka, through the delivery of a 20-kilometer (km) bus rapid trapilot project provides a holistic solution for integrated urban mobility, bearing a comodern mass transit system exists in Bangladesh yet.	nsit (BRT) corridor. This			

Project Rationale and Linkage to Country/Regional Strategy Bangladesh was ranked 146th out of 187 countries in the 2011 United Nations Human Development Index, and Dhaka is consistently ranked one of the world's most unlivable cities in the Global Liveability Report. Traffic congestion and air pollution play a major role in these poor rankings. Greater Dhaka is one of the fastest-growing megacities in the world. An estimated 300,000 400,000 migrants, mostly poor from rural areas, arrive in the metropolitan area annually. Since 2000, its population has more than doubled and it is projected to grow from 17 million in 2012 to 25 million in 2025. Dhaka is also one of the most densely populated cities in the world, with 45,508 people per square kilometer in the core area. Such high density in a city with limited inhabitable land owing to the city's topography, limited infrastructure, and low level of public services results in tremendous congestion and constrains the UTS' ability to provide mobility for all people. Car ownership and usage are still low because of lack of disposable income, but these figures are increasing fast with a growing middle class. In 2010, only 150,000 private cars and 500,000 other motorized vehicles were registered in Dhaka, but 60 70 additional cars were registered daily. With annual motorization growth of 8%, there could be up to half a million cars in 2025, increasing local air pollutants and greenhouse gas (GHG) emissions from the transport sector.

Without better planning and strategy, the metropolitan area will keep on sprawling north and south anarchically along the existing axis. The main issue for Dhaka's urban development lies in its fringes, where most of the urban sprawl and pauperization take place. Concepts like satellite cities, city clusters, and transit-oriented development have to be implemented to organize the urban growth and public spaces toward improved living conditions and climate change mitigation. To ensure a sustainable future for Dhaka, public transport focused on people's mobility needs and accessibility has to be improved and given priority over simple road projects. International experience documents well that interventions that promote nonmotorized transport (NMT), a modal shift from private vehicles to public transport, and integration of land-use and transport planning also help lower GHG emissions in the long run. Investigations conducted as part of the project preparatory TA have shown that, out of six suburban corridors analyzed, the corridor connecting Dhaka North City Corporation (DNCC) (over 20% of its length) with the emerging GCC (over 80% of its length) has the best potential to organize urban development and support a mass transit infrastructure; and that BRT is the most cost-effective mass transit mode for the selected corridor. GCC is being created from the merger of Tongi and Gazipur pourashavas (municipalities) as a satellite city on the northern edge of Dhaka with an estimated official population of 1 million, and a large floating population. The area is a garment hub, with 272 factories in the immediate vicinity of the corridor employing about 1 million workers. This adds to the high levels of demand for travel. GCC's current traffic is characterized by the following modal split: (i) 22% of trips are made by private modes; (ii) 40% by public transport (buses); and (iii) 38% are nonmotorized, made on foot or by cycle-rickshaws. The high level of congestion and pollution result from (i) rapid motorization, (ii) a weak road network accounting for only 10% of the urban area when the required ratio is 25%. (iii) weak traffic management to organize the dense and anarchical mix of many competing modes, (iv) lack of transport demand management, and (v) inefficient public transport services. An estimated total of 4,858 large and mini buses run through the project corridor, 25% of which do not have a proper permit; they are shared between 61 licensed city routes operated by 45 companies, mostly private, and 38 intercity routes. The bus fleet is in poor condition; bus stops are rudimentary and do not provide passengers with information on schedule, itinerary or connections; the ticketing system is not developed; and operators compete for passengers, worsening congestion and impairing safety. The situation in road-based traffic collisions is deteriorating, mostly affecting pedestrians (the poorest) who represent more than half of road accident fatalities in DNCC and GCC streets. This safety issue becomes even more acute when looked at from a gender perspective: 80% of garment workers are women commuting on foot in a large proportion.

Close coordination will be ensured with other development partners in the urban transport sector. The selected corridor will connect with the BRT corridor to be undertaken by the World Bank under the Clean Air and Sustainable Environment Project, leading ultimately to a 40 km long mass transit corridor, from Gazipur to Dhaka city center. It is, therefore, crucial to coordinate both projects and ensure full operational and technical integration. With ADB's section having more chances to be implemented first since it has easier institutional and technical features, its demonstration effect will ease implementation of the World Bank section. Japan International Cooperation Agency recently undertook the Dhaka Urban Transport Network Development Study, focusing on the feasibility of a metro (also called mass rapid transit system, MRT). Potential synergy can be found with this project, notably in capacity building and necessary organizational developments to improve the management of Dhaka's UTS.

Impact

A sustainable urban transport system is developed in DNCC and GCC.

<b>Project Outcome</b>	
Description of Outcome	The public transport system is improved in DNCC and GCC, benefiting a population of 1 million.
Progress Toward Outcome	Traffic survey is completed. Design Frame work already finalized, report yet to be submitted. Design of Gazipur Bus Terminal was completed in August 2014 and Bidding initiated in March 2015
Implementation Progress	
Description of Project Outputs	<ol> <li>DNCC and GCC's main urban transport corridor is restructured.</li> <li>Project management is effective, and BRT operations are sustainable.</li> <li>Urban quality of the corridor is improved.</li> </ol>

Status of Implementation Progress (Outputs, Activities, and Issues)

Topographical survey, pavement condition survey and bridge, culvert condition survey and traffic survey are completed. ODBM has submitted business plan in August 2014. This can be assessed after construction of corridor.

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Not yet due.

Not yet due.

Not yet due.

Not yet due.

Too early to access.

Approved.

SPO was formed on 1July'2013. Organizational structure of SPO approved by ADB.

Ongoing.

Not stated yet.

Not started yet.

This can be assessed after constrction of BRT terminal.

Not yet due.

This can be assessed at the end of project period.

This can be assessed at the end of project period.

## **Geographical Location**

Safeguard Categories	
Environment	В
Involuntary Resettlement	А
Indigenous Peoples	С

### **Summary of Environmental and Social Aspects**

### Environmental Aspects

The project is classified as category B for environment. An initial environmental examination (IEE) including an environmental management plan (EMP) was prepared in accordance with ADB's Safeguard Policy Statement (SPS, 2009) and government laws. The IEE concludes that no significant adverse impacts are anticipated and that net environmental benefits will be positive and large, including: (i) improved air quality and health cobenefits from clean fuel buses and reduced traffic and congestion; and (ii) improved community and pedestrian safety from improved stormwater drainage and energy-efficient street lighting. Opportunities to utilize the Clean Development Mechanism (CDM) and obtain carbon credits from emission reductions for enhanced revenue streams for the BRT operations are also available and assessed under the project. It is estimated that CO2 emissions will be reduced by 40,000 tons per year from: (i) replacing part of existing fuel-inefficient fleet with larger capacity CNG-efficient BRT buses; (ii) improving average speeds in the corridor, resulting in less idling times; and (iii) establishing improved emission standards and enforcement practices. The EMP emphasizes good traffic management during the construction period to ensure limited disruption to existing traffic flows and local businesses. Implementation arrangements ensure that the PMU and PIUs have adequate capacity to manage environmental impacts through consultant support and capacity building. The IEE and EMP will be updated during detailed design and incorporated into bidding and contract documents to be implemented by contractors and monitored by EPCM consultants and the PMU. An environmental assessment and review framework (EARF) was also prepared to address small improvements on municipal infrastructures to be defined through detailed design after ADB Board approval.

### Involuntary Resettlement

The project is classified as category A for involuntary resettlement. A draft Resettlement Plan was prepared in accordance with ADB's Safeguard Policy Statement, 2009, and government laws, and disclosed. A total of 2,482 households (10,474 affected persons) will be impacted due to the proposed project. These impacts consist primarily of relocating informal vendors within the right-of-way and only a small portion (2%) of the overall impacts will include physical relocation from housing. The resettlement impacts include the following: (i) relocation of 1,704 informal vendors conducting businesses within the right-of-way; (ii) relocation of 46 non-titled residential settlers along the northern banks of the Turag River; (iii) partial physical impacts to 498 commercial establishments operating within the corridor; (iv) partial loss to 225 commercial structures situated on feeder roads near junctions; (v) partial impacts to 6 industrial establishments along the corridor; (vi) strip land taking of private land. In addition, temporary disruption to income will occur to 966 workers during pre-construction activities. The two terminals and the depot are proposed on government-owned lands. Alternative locations for informal vendors and non-titled residential settlers were identified and agreed with local government officials. The Resettlement Plan will be implemented by the PIUs, with the support of an NGO, and EPCM consultants who will provide a capacity building program to ensure the PIUs have adequate capacity to manage social impacts. Meaningful, widespread consultations will continue with all communities in the project area. A Resettlement Framework was also prepared to address small municipal infrastructure improvements to be defined through detailed design after ADB Board approval.

### Indigenous Peoples

The project is classified as category C for indigenous peoples. Considering the urban locations of the subprojects, no impacts to indigenous peoples are expected.

# Stakeholder Communication, Participation, and Consultation

### During Project Design

The proposed project will support the government's Sixth Five-Year Plan 2011-2015, and ADB's Country Partnership Strategy by addressing their common policy triangle of: (i) green growth, (ii) climate change mitigation, and (iii) inclusive social development. It will contribute to national priorities to make Dhaka more livable and safe, develop green urban infrastructures, boost private sector investment, and foster gender equity. It complies with Dhaka's urban transport priorities by following some of the recommendations of the Strategic Transport Plan, approved by the government in 2008. The Project is also well aligned with ADB recent focus on urban transport, as outlined in ADB's Sustainable Transport Initiative. Lessons learnt from the past assistance have been incorporated into the project design, notably the need to strengthen good governance and government agencies capacities for project implementation, the need for gradual approach to sector reform and organizational arrangements, as well as the need to expand support for private sector development.

# During Project Implementation

The project will be implemented by three governmental agencies: (i) the Roads and Highways Department (RHD) will implement the main corridor restructuring, excluding the elevated section, and will prepare the PPP scheme to finance the BRT terminal near the airport; (ii) the Bangladesh Bridges Authority (BBA) will implement the 4.5 km elevated section, integrating the new Tongi bridge and the Abdullahpur intersection flyover; and (iii) the Local Government Engineering Department (LGED) will implement the BRT depot in Gazipur and small municipal infrastructures improvements (local roads, drains and markets). A project implementation unit (PIU) will be established in each of these implementing agencies, headed by a full-time project director. The PIUs will receive support from the Engineering, Procurement, and Construction Management (EPCM) consultants, and RHD's PIU will be assisted by a non-governmental organization (NGO) to implement the resettlement plan.

## **Business Opportunities**

Consulting Services

Consultants' recruitment will be carried out in accordance with ADB's Guidelines on the Use of Consultants (2010, as amended from time to time). Four consulting packages (PMCCB, EPCM, ODBM and NGO) will be procured under the project. At the government's request, the consulting firms will be selected by ADB, and engaged and employed by the executing agency.

OCBS - 90:10 / OBS - 1224 person-months - \$13,200,000

Procurement

All procurement of works, goods and services will be carried out in accordance with ADB's Procurement Guidelines (2010, as amended from time to time). The consulting services and the agreed Procurement Plan, indicating contract packages and procurement procedures, are described in detail in the PAM. International competitive bidding - 9 contracts - Above \$1,000,000 for Works, above \$500,000 for Goods Shopping - multiple contracts - \$100,000 or less

No National competitive bidding (\$1,000,000 or less for Works, \$500,000 or less for Goods)

Responsible ADB Officer	Mohammad Nazrul Islam
Responsible ADB Department	South Asia Department
Responsible ADB Division	Bangladesh Resident Mission
Executing Agencies	Local Government Engineering DepartmentSSWRDSP@LGED.ORGLGED Bhaban (Level 6), Agargaon Sher-e-Bangla Nagar, Dhaka 1207, Bangladesh Roads and Railways Division (RRD)-Min. of Comm.Bangladesh Secretariat Dhaka, Bangladesh

Timetable	
Concept Clearance	11 Apr 2011
Fact Finding	10 Apr 2011 to 21 Apr 2011
MRM	22 Sep 2011
Approval	17 Apr 2012
Last Review Mission	-
Last PDS Update	31 Mar 2015

# Grant 0287-BAN

Milestones						
Annroval	Cinning Data	Effectivity Date	Closing			
Approval	Signing Date	Effectivity Date	Original	Revised	Actual	
17 Apr 2012	17 Dec 2012	15 Mar 2013	31 Dec 2017	-	-	

Financing Plan		Grant Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage

Project Cost	50.00	Cumulative Contract Awards			
ADB	0.00	17 Apr 2012   0.00   0.00			0%
Counterpart	45.40	Cumulative Disbursements			
Cofinancing	4.60	17 Apr 2012	0.00	0.00	0%

# Loan 2862-BAN

Milestones					
Annroyal	Signing Date	Closing			
Approval	Signing Date	Effectivity Date	Original	Revised	Actual
17 Apr 2012	17 Dec 2012	15 Mar 2013	31 Dec 2017	-	-

Financing Plan		Loan Utilization			
Total (Amount in US\$ million)		Date	ADB	Others	Net Percentage
Project Cost	100.00	Cumulative Contract Awards			
ADB	100.00	17 Apr 2012   0.00   0.00			0%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	0.00	17 Apr 2012 0.33 0.00			0%

# Loan 2863-BAN

		Milestones			
Annroval	Signing Date	Closing			
Approval	Signing Date	Effectivity Date	Original	Revised	Actual
17 Apr 2012	17 Dec 2012	15 Mar 2013	31 Dec 2017	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date ADB Others Net Perce			Net Percentage
Project Cost	15.00	Cumulative Contract Awards			
ADB	15.00	17 Apr 2012 4.79 0.00			35%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	0.00	17 Apr 2012	1.78	0.00	13%

		S	Status of Cov	enants		
Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	-	-	-	-	-	Satisfactory

# Loan 2864-BAN

		Milestones			
Ammayal	Cianina Data	Effectivity Date		Closing	
Approval	Signing Date	Effectivity Date	Original	Revised	Actual
17 Apr 2012	17 Dec 2012	15 Mar 2013	31 Dec 2017	-	-

	Financing Plan		Loan	Utilizatio	n
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	45.00	Cumulative C	ontract .	Awards	
ADB	45.00	17 Apr 2012	11.24	0.00	27%
Counterpart	0.00	Cumulative D	isburser	nents	
Cofinancing	0.00	17 Apr 2012	4.36	0.00	11%

## Loan 8270-BAN

		Milestones			
Annroyal	Signing Date	Effectivity Date		Closing	
Approval	Signing Date	Ellectivity Date	Original	Revised	Actual
10 May 2012	27 Jan 2013	27 Jan 2013	30 Nov 2017	-	-

	Financing Plan		Loan	Utilizatio	on
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	45.00	Cumulative Co	ontract	Awards	
ADB	0.00	10 May 2012	0.00	0.00	0%
Counterpart	0.00	Cumulative Di	sburse	ments	
Cofinancing	45.00	10 May 2012	0.00	0.00	0%

		:	Status of Cov	venants		
Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	-	-	-	-	-	Satisfactory

## **TA 8072-BAN**

		Milestones			
Annwayal	Signing Data	Effectivity Date		Closing	
Approval	Signing Date	Effectivity Date	Original	Revised	Actual
17 Apr 2012	27 Mar 2013	27 Mar 2013	31 Dec 2014	31 Dec 2016	-

			Financing F	Plan/TA Utilization				Cumulative Disburs	sements
ADB	Cofinancing	Count	erpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor		Others			
0.00	1,000,000.00	0.00	0.00	0.	.00	0.00	1,000,000.00	17 Apr 2012	0.00

			Status of C	ovenants				
Category	Sector	Safeguards	Social	Financial	Economic	Others		
Rating	-	-	-	-	-	Satisfactory		
Project Page		http://www.adb.	org/projects/421	169-013/main				
Request for Information http://ww			nttp://www.adb.org/forms/request-information-form?subject=42169-013					
Date Generate	-q	22 August 2015						

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