SECTION III J:
Role of Public Investment to Promote Eco-efficiency of Infrastructure such as Public Transport

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Second Green Growth Policy Dialogue:
The Role of Public Policy in Providing Sustainable Consumption Choices: The Resource-Saving Society and Green Growth

Green Growth

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Bangladesh Country paper
The Role of public Investment to Promote eco-efficiency of infrastructure such as public transport

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Role of public investment to promote eco-efficiency of infrastructure such as public transport.

The role of an efficient transport and communication system is extremely critical for the socio- economic progress of a country. As physical infrastructure is indispensable, a well-knit transport and communication network ensures a well balanced distribution system for the means of production, efficient marketing of produced commodities, maintaining stability of price and rapid industrialization. In the current context of globalization and market economy, there is a critical need for evolving a developed and well knit transport and communication system that should be able to integrate Bangladesh with the international transport and communication network. Realizing this importance, the concerned ministries and their agencies continue to exert their concerted efforts to develop the system. In the Revised Annual Development Programme (RADP) of FY 2004-05 there is an allocation of TK. 4543.77 crore for transport and communication sector. In FY 2004-05, the contribution of this sector to the GDP at constant prices is about 10.01 percent (provisional). The transport and communication network in Bangladesh has evolved with roads, railway, and water and air transport as well as post telecommunication and information technology.

Sustainable Transportation

Although commonly referred to **Sustainable Transport** or **Sustainable Mobility**, there is no widely accepted definition of sustainable transportation by any of these names. Since it is a sector-specific sub-set to the post-1988 sustainable development movement, it is often defined in words such as this: “Sustainable transportation is about meeting or helping meet the needs of the present without compromising the ability of future generations to meet their own needs.” But this is only a starting point.

The concept of sustainable transportation is a reaction to some of the things that have been radically and visibly wrong with transportation policy, practice and performance over the last half of the twentieth century in particular (unsustainable resource take, energy profligacy, pollution, declining service levels despite increasing investments, poor service or specific social and economic groups). Over most of the century, it was assumed that adequate transportation structures needed to be built since they provide an essential underpinning to growth and economic health. Accordingly the main concern of transport planners and policy makers was in the "supply" of transportation, and specifically in ensuring that the supporting infrastructure was going to be adequate to support all projected requirements. The dominant approach was, therefore, to forecast and then build to meet. In public transport planning likewise it was the supply and efficient operation of vehicles that got the build of attention. As a result, it is claimed by many analysts and observers that most places have heavily overbuilt their physical transportation infrastructures, which in fact has led to unsustainable levels of traffic and resource use.

The sustainable transportation movement, which has gradually gained in force over the last decade and a half, has in the process started to shift the emphasis in public spending and actions away from building and supply, to management and demand. In all cases the values of heightened respect of the environment and prudent use of natural resources are central, with varying degrees of urgency expressed by different actors and interests. That said, it is still very much a minority movement and most actual expenditures in the sector are determined by criteria other than sustainability.

Existing Environment Policy in Bangladesh:

The Governments Environment Policy makes the following statements on transport and communication

The main strategies are as follows.

- Choosing new projects on the basis of their economic viability.
- Development of a transport network, which does not conflict with overall water management, polices.
- Promoting increased participation of the private sector.
- Coordinating transport polices within national land use planning.
- Increasing the efficiency and use of existing facilities through tariff adjustments, which take into account maintenance costs, and transportation economics...
- Ensure that road, rail, air and inland water transport systems do not pollute the environment or degrade the resources.
- Ensure that people and transport using road, rail, air and inland waterways do not pollute the environment and take steps to protect the health of the workers that run them.
- Control those activities in inland ports and dockyards, which cause pollution of water and the local environment.
- Reduce and discourage the use of those fuels that pollute the environment and encourage the use of these fuels that are environmentally sound and less harmful.

Key Issues:

NEMAP identifies the following environment issues in the transport and communication sector as important:

- Widespread unchecked water pollution arises from inland and coastal shipping. Facilities to receive and treat ship wastes are lacking.

- Air pollution in localised urban areas and along major roads due to incomplete combustion of fuel is a major cause for concern.

- Regulatory control and monitoring of waste disposal from ships and trains is insufficient.

- Poor vehicle maintenance and inadequate enforcement of legal requirements results in much unnecessary pollution and fuel wastage.

- Urban transport planning and management appears inadequate for the volume of traffic in many urban areas, resulting in traffic jams which waste both time and fuel.

- Inappropriate shallow borrow excavation (eg. along the Asian Highway) removes much more topsoil than conventional deep borrow pots, thus affecting agriculture production.

- Road and rail construction lead to permanent loss of agriculture land though offers possibilities for social forestry along route corridors and for aquaculture in borrow pits.

- The socio-economic costs and benefits of bridge construction and the resultant replacement of ferries need to be considered in project appraisal. Many livelihoods are diminished when ferry crossing becomes redundant.

- Inadequate attention to natural drainage patterns often leads to inadequate culvert provisions.

- Siltation of inland waterways and their closure due to FCD/I structures adversely affects private boat owners and forces a shift from river to road transport.

- Involvement of women in road construction and maintenance is limited, thus depriving many rural women-headed households of income generation.

- The level of road safety is extremely poor leading to loss of life and vehicles through accidents.

- Noise pollution from vehicles horns and air traffic is significant in many areas, affecting health and disrupting commerce and administration.

- Permanent loss of land to road and rail construction decreases agriculture production and affects the long terms livelihoods of displaced farmers.

Infrastructure development on public transport in Bangladesh

Over the last thirty-four years, a huge road network of 2 lakh 71 thousands km has been built. Beside the Roads and highways, the Local Government Engineering Department is also playing a vital role in the Development of transport infrastructure. According to a report of R and HD, there were a total of 21571 km. roads, 3790, bridges having the length of 130 km. and 10981 culverts at 54 km. length under this Department until the middle of 2005. This department is implementing a number of programs for building vital roads and bridges throughout the country for socio-economic development.

Measures adopted in the Road Sector

1. Private sector involvement has been ensured in developing the road network of the country.
2. A road maintenance fund is being established to ensure proper maintenance of the road network.
3. Poverty Reduction Strategy Roads and the Highways Department are preparing an investment programme consistent with PRSP. In this process, women are being given higher priorities in district and other road construction projects to ensure higher growth in women employment in rural economy.

For infrastructure development of urban and rural areas LGED is implementing a range of programs with foreign and local finance. Included among them are construction of rural roads, bridges culverts, growth centers, hat bazaar/women's corner, embankments, and plantations, UP complex, ghat/jetty, irrigation drainage for better agricultural production in dry seasons, regulator sluice gates, plantations and preservation of water in the canals. Also, for the convenience of the people in urban areas, roads/footpath/bridges/ culverts, drains, latrines/community latrines, bus /truck terminals, town halls, super markets/kitchen markets, tube well etc. are being constructed/reconstructed. Recently, LGED has completed the construction of Khilgaon Flyover using indigenous technology. It is a new addition to urban infrastructure development in Bangladesh. During FY 1991-92 to 2004-05 a total of 92721 km (55976 km earthen road and 36745 km paved road) upazila road and union road and 440418 meter bridge/culvert, 14661 km tree plantation, 1247 nos. UP Complex Bhaban, 109040 hectare FCDI and Command Area Development and 388 nons, Cyclone Shelters have been constructed and also 11702.83 lakh man days employment have been generated.

Jamuna Multipurpose Bridge Authority (JMBA)

Jamuna Bridge is playing a vital role in the road transport system. The Bridge has made the communication between the eastern and northern region of the country easier. As a result the producers are getting fair prices of their goods which are encouraging them to produce more. This, in effect, is inducing increased production with the establishment of new industries and economic activities in the North West zone. Therefore there is an increasing trend toll collection. Because of the construction of a dual gauge railway across Tangail under the Jamuna Rail link project, it was possible to set up a direct railway link between the capital city Dhaka and Rajshahi and Khulna Division. Alongside setting up fail and electricity lines, a gas line has been set up over the bridge. Gas is currently being supplied to Sirajgonj town and to Bangladesh power station. If it is possible to supply gas to Bogra and other northern districts gradually it will facilitate conversion of oil based power plants into gas based system. Meanwhile Bogra is connected with gas supply system. This will help to save foreign currency of the one hand and maintain environmental balance on the other.

Other Projects for Construction of Bridge

After successful completion of the Jamuna Bridge the Government has taken initiatives to build bridges over other major rivers to develop an integrated transportation network throughout the country. Building bridges over Daleshwari and Padma is one of these initiatives.

Dhaka Transport Co-ordination Board (DTPC)

To provide support to the development of transport infrastructure facilities in the Metropolitan Area, the Dhaka Transport Co-ordination Board (DTCB) was established in 2001 by an Act. Its main objectives are to develop a planned and environmentally friendly transport system in close cooperation between the public and private sector. Another principal objective of the Board was to prepare a long-term transport plan for the metropolitan area by strengthening the institutional capacity of Rajdhani Unnyan Kartipksha, Bangladesh road Transport Authority and Development of Environment. Dhaka Urban Transport Project (DUTP) has been implemented at a total cost of US$143 million (TK.834 crore), with the World Bank credit of $106 million. However most of the components of the project including construction of the Mahakhali Flyover installation of traffic signals at 61 intersections and preparation of 20 years Strategic Transport Plan has also been completed.

The above activities of the DTCB have sensitised the city dwellers to abide by traffic rules making it easier to enforce them. This has partially reduced traffic jams and brought much relief to the city dwellers. Using the equipment supplied to Dhaka Metropolitan Policy, its capacity has raised traffic enforcement and performance to better than before. Traffic training schools are using the supplied instruments properly and the traffic polices are receiving regular training.

Bangladesh Road Transport Corporation (BRTC)

BRTC has a rich tradition as an entity. To establish a sound transport system BRTC was established in 1961 by an Ordinance. Its main objectives are to:

1. Ensure a cheap, speedy, secure, comfortable and modern transportation system.
2. Help develop a non-government transport system.

3. Play an important role in controlling the transport quality and transport fare.
4. Development of skilled manpower in the transport sector thorough training.
5. Play a strategic intervention role for a sound and organized transport system.

BRTCs Strategic Intervention Role

1. Render continuous transport services during floods, tidal surges and natural calamities.
2. Provide continuous transport services during hartal , strikes and political agitations.
3. BRTC provides support to the Government in controlling the situation when the private sector vehicle owners raise fare and try to bring home their demands by stopping vehicular traffic. It intervenes directly to support Governments efforts to control the situation arising from any uncalled for demand.
4. It provides its Truck service for movement of Government relief materials.
5. When the private owners are reluctant to provide transport service in unprofitable routes, BRTC comes forward to provide service at relatively less fare.

Bangladesh Railway and other services

Bangladesh Railway is regarded as a cheap and eco-friendly mode of transport. In maritime trade, the Chittagong Sea Port plays a major role. Beside the role or Mongla Sea port, Bangladesh Inland water Transport Authority is also important in transporting passengers and freights. Bangladesh Shipping Corporation is working to provide efficient shipping facilities on international water routes. The Department or Shipping performs its regulatory role by enforcing relevant maritime laws and also protects the interests of the crews. Public and private initiatives are continuing in the infrastructure development of the land ports established near the border areas or the country. Civil Aviation Authority is responsible for establishment and development of the infrastructure necessary for aircraft operations and at present, it is maintaining 3 international and 5 domestic airports. Bangladesh Telecommunication Regulatory Commission is engaged in ensuring development of telecommunication services in Bangladesh and to regulate it all over the country. Bangladesh Telephone and Telecommunication Board is the only Government telecommunication system and the postal Department is the only Government Department providing postal service. In the context of globalization and market economy, the present government releasing the importance of development of information technology has taken a number of steps in the development of this sector.

Measures to Control Pollution of Environment

There exist a good number of laws and regulations in the country to confront air pollution. The Department has been implementing a number of projects to control air pollution. In view of the heightened awareness of the dangers of lead pollution the Government executed the decision of providing only lead-free gasoline in July 1999. To control air pollution the Government has amended Environment Conservation Rules 1997 with a new rule under which the use of catalytic converters, oxidation catalysts and diesel particulate filters has been made mandatory respectively in petrol, diesel and CNG driven vehicles. Plying of bus, minibus, microbus, taxi, which is more than twenty years old and truck, mini truck, tank lorry and van which are more than twenty five years old, has been banned since 1st January 2002. Plying of two-stroke three wheelers has been banned in Dhaka City since 1st January 2003. The Government has introduced CNG driven four stroke three wheelers and encouraging CNG driven automobiles.

A continuous Air Quality Monitoring Station has been set-up in the premises of National Parliament under the Air Quality Management project with the financial assistance of the World Bank. From this station vehicular emissions are being monitored regularly against different parameters to get various information on the status of the air quality of Dhaka City. Initiatives have been undertaken to setup a continuous air quality monitoring station in the Chittagong City. Under these programmes a number or satellite air quality monitoring stations will be set-up in other cities. In addition, procurement of two mobile air quality monitoring stations is underway to monitor local air quality regularly. A Webster has been opened for giving information and creates awareness to the people about air pollution. A draft vehicular emission standard has been formulated. Also, draft air pollution standards and an air pollution index have been formulated.

Actions Required:

Peoples concerns in this sector relate to indiscriminate and unplanned rural road infrastructure construction, resettlement issues related with transport infrastructure construction, silting up of water ways, accidents on roads and water ways, pollution due emission of smoke and discharge of oil by mechanized vehicles etc.

Preparation and implementation of guidelines for rural roads, providing proper and quick compensation to the project affected people, pollution control, coordination among different agencies etc are the suggested solutions made by the people.

Although the secretarial policy aims to develop transport networks in coordination with the national water management and landaus policies, it is not explicit about incorporating environmental concerns or coordi-

nating it with the environment policy, which has outlined the frame work to incorporate environmental concerns in the planning and development of the transport sector.

The planning interventions in this sector would incorporate guideline preparation for rural roads and infra-structure development, reviewing resettlement policy for delivering compensation packages, institutional arrangements to coordinate with other agencies which affect development in this sector, reinforcement of policy for the abatement of pollution from vehicular emission and discharge.

Concluding Remarks:

"Sustainable transport is about finding ways to move people, goods and information in ways that reduce its impact on the environment, the economy, and society. Some options include:

- Using transport modes that use energy more efficiently, such as walking or cycling and public transport, improving transport choice by increasing the quality of public transport, cycling and walking facilities, services and environments
- Improving the efficiency of our car use, such as using more fuel efficient vehicles, driving more efficiently, avoiding cold starts, and car pooling
- Using cleaner fuels and technologies
- Using telecommunications to reduce or replace physical travel, such as tele-working or tele-shopping
- Planning the layout of our cities to bring people and their needs closer together, and to make cities more vibrant and walk able