

ROAD SAFETY AND POVERTY DYNAMICS IN BANGLADESH

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The Problem Worldwide: Road crashes will move up to third place in the world league table for death and disability by the year 2020, just behind clinical depression and heart disease but ahead of HIV. Nearly one million persons are injured globally in road accidents each year. Over 75 percent of these casualties occur in the developing countries, though they account for only 32 percent of motor vehicles. The global economic impact for accident is huge; economic losses caused by road accident amount to US\$ 500 billion; for the developing countries the economic loss is about US\$ 100 billion (2 percent of GDP, nearly equivalent to double of all overseas development assistance). The road fatalities gap between poor and rich countries is widening, and this trend will continue unless new global, regional, and country initiatives are taken to reduce the gap. Any reduction of the economic loss caused by road accidents can be effectively used for the socio-economic development of the developing country thereby helping the poor.

World Bank Objective: In the context of the World Bank's objective to reduce poverty through sustainable economic development, the most important question that needs to be addressed is : how can transport operations be designed to ensure that they contribute effectively to poverty reduction. Poverty reduction being a key indicator of Millennium Development Goal (MDG), incorporation of social development and participatory process has become key features in transport projects financed by the World Bank.

Global Initiative: The World Bank's Global Road Safety Facility (GRSF) was launched in November 2005, and it commenced operations in April 2006. The Facility is a direct response to the global call for action by the United Nations General Assembly Resolutions (improving global road safety and World Health Assembly Resolution (Road Safety and Health), to address the silent epidemic on the world's roads. The Facility aims to generate and catalyze increased funding to support initiatives aimed at reducing deaths and injuries in low and middle-income countries. Experience in high income countries demonstrates that road deaths and injuries are preventable, and the potential benefits to the low and middle income countries are huge. Preliminary estimates by the World Bank indicate that more than 2.5 million lives could be saved and 200 million injuries avoided if fatality rates per vehicle could be reduced a further 30 percent by 2020. Predicted road traffic fatalities described in Table-1 below depicts a gloomy picture for South Asia region. In addition to GRSF, the World Bank also initiated the establishment of the Global Road Safety Partnership (GRSP) in 1999. GRSP is a global partnership involving business, civil society and governments dedicated to the sustainable reduction of road crashes in developing countries. In Asia, GRSP is currently working in India (Bangalore city-the safe route to school program), in Vietnam (helmets for kids program), and in Thailand (improve traffic safety focus for motorcyclists).

TABLE - 1

PREDICTED TRAFFIC FATALITIES	
<i>World Bank Region</i>	<i>percent changes (2000-2020)</i>
South Asia	144
East Asia & Pacific	80
Sub-Sahara Africa	80
Middle East & North Africa	68
Latin America & Caribbean	48
Europe & Central Asia	18
Sub-total	83
High-income countries	-28
Global Total	66

Accident Victims: Road accidents affect the poor most, making road safety an economic development imperative. In South Asia most of the victims of road accidents are not the users of motor vehicles. Pedestrians and cyclists are the most vulnerable road users and account for majority of traffic deaths in low and middle income countries. In Dhaka city, pedestrians alone comprise almost 75 percent of road accident fatalities, in Delhi pedestrians and bi-cyclists amount for around 55 percent of the total traffic deaths, and the pattern is also similar in Colombo. In Bangladesh at the nation wide level 49 percent of road accident victims are pedestrians, 37 percent are passengers, and 14 percent are drivers. According to the Road Traffic Accident Report published by Road Safety Cell of Bangladesh about 70% of the accident victims are in the age group of 16-50 years, the most economically active age group. According a report prepared by TRL of UK, females accounted for about one sixth of road deaths (17%) and injuries (19%). Females appear to be at the greatest risk to road death when young with girls accounting for over half of the female deaths, over three times the share of male road deaths occurring to boys.

Poverty Impact : Road crashes disproportionately impact on the poor and their consequences can plunge household into acute poverty. A shortage of safe, affordable travel options make things even worse for the poor. Long distances buses are mostly over crowded with passengers riding on roof tops, and passengers often travel in empty trucks as cheap travel options. In the rural areas of Bangladesh the SONIMON vehicle (a hybrid vehicle made from the parts of motorcycle and pump engine without adequate braking facilities) is spreading like wild fire, mainly due to very low price (costing between Taka 30,000 to 50, 000 which is much lower than the CNG run auto-rickshaw the price of which is about Taka 250,000). These low cost unsafe vehicles also causes lot of accidents in rural areas. In Dhaka city about one million rickshaw pullers ply (on double shift) about 500,000 rickshaws, the majority of them are landless and are the victims of river erosion. These rickshaw pullers rush to the capital city for survival, and being unaware of

traffic safety rules cause accidents thereby putting their lives as well as the lives of the passengers at risk.

Impact on Disability A recent study (published in 2004) of disability in Bangladesh reveals that 10 percent of the population is disabled (60 percent impairments is due to disease and malnutrition, 17 percent to birth defects, 15 percent to accidents, and 8 percent to old age). According to an UNICEF report (Bangladesh Health and Injury Survey published in 2005) road collisions are the 4th leading cause of permanent disability for children in Bangladesh accounting for about 1360 children being permanently disabled each year. Out of 30,000 children (aged 0-17) killed each year from injury and 3400 children (aged 1-17) are killed in road accidents, the majority of whom are from poor families. Although no information is available regarding the total number of disability and its relation to road accidents the proportion would be in the same range. Many families are driven deeply into poverty by the loss of a breadwinner and the added burden of disabled members. Road accidents are an economic burden, and pose a major challenge to health care system According to a survey more than fifty percent of the emergency beds in government hospitals in Bangladesh (mostly used by poor spectrum of population) are occupied by the road accident victims.

Road Deaths and Injured: According to a study In Bangladesh carried out by TRL of UK it is observed that about two thirds of road deaths occur at the scene of the crash, one quarter take place in hospital within 30 days, and the remaining deaths occur after 30 days. Most of the seriously injured are treated at emergency units in hospitals (74%) with another 16 % visiting doctors, and the remaining 10% seeing allopathic quack. The average stay of the seriously injured road accident victim in hospitals is 7 days. For slight injuries almost half seeks treatment from a general practitioner (48%), about 20% visits an allopathic quack, 18% visits emergency units, and the remaining and the remaining 14% does not go for any treatment.

Socioeconomic Impact: According a study conducted by TRL of UK it is observed that over 70% of poor households reported their household income and food consumption have decreased after a road death whereas the impact was less than 57% for non-poor families.. it is also reported that some 61% poor families are forced to arrange loan after a road death , while only 34% of non-poor needs to borrow. According the study, among the poor 32% of road deaths occur to head of households, compared to 21% for non-poor. Students accounts for the largest number of road deaths among the poor house hold. Which cause parents to loose their social security source.

Road Crash Costing; The current road crash costing of the Roads and Highways Department is based on the assumption that 49% are fatal, 19 percent grievous, and 7% of simple crashes are reported (24% not reported.). Average property damage cost (includes average vehicle damage cost and average cost of the damaged goods) is Taka 55,430 for fatal crash, Taka 73,210 for grievous injury, and Taka 60,620 for simple injury. Medical costs include the any at-scene treatment through to rehabilitation; and the discounted value of funeral costs (average cost of funeral is Taka 10, 600). . For all those apart from vehicle owners, medical costs is the largest direct cost and have the most

immediate impact on the family. Average medical cost is Taka 11,800 for road death, Taka 18,800 for serious injury, and Taka 1,400 for slightly injured. Average age of road death victim is 26 years, and average loss for road death victim is 31 year. Total missed days for seriously injured is 107 days, and total missed days for slightly injured is 13 days (inclusive of days for recovery and job search).

Rehabilitation of Accident Victims Rehabilitation of accident victims involves two things, firstly the physical rehabilitation of the disabled, and secondly (and more importantly) the socioeconomic rehabilitation of the victims and their families. Usually the road accident victims need long term medical help (physiotherapy) which is costly and time consuming. Although the medical clinics take care of the immediate needs of the victims, because of their capacity constraints they are not in a position to accommodate long term needs of the victims. Center for Rehabilitation of Paralyzed (CRP) located at Savar (30 km north of Dhaka) is a pioneering organization catering to the needs of accident victims. CRP's program includes physical rehabilitation as well as some socio-economic rehabilitation (through training in skill development). Due to huge demand, CRP is not in a position to cater for large number of disabled population in Bangladesh. Due to lack of information the number of disabled persons who are victims of road accident are not known. There are about 14 million disabled people in Bangladesh. (both disabled at birth and due to different kinds of accident); even if we assume that ten percent of the disabled persons are the victims of road accident than the figure will be a staggering 1.4 million. There is an urgent need for other NGOs to provide assistance to the road accident victims.

Community Participation: Presently, community zone are being effectively used in Japan to reduce the fatalities of pedestrians in urban and rural areas. In Bangalore of India, through community participation (among students, teachers, and parents) a safe routes to school program is currently under implementation. Based on the success in other countries, community road safety initiative has also been initiated in Bangladesh. Under the World Bank financed Rural Transport Improvement Project which is being currently being executed by the Local Government Engineering Department. Union Road Safety Committee will be formed on pilot basis in 21 unions. The main objective of the pilot Rural Transport Safety (RTS) is to focus on viable small scale safety initiatives for communities which can be implemented locally. Through the initiative of RTS the majority of poor people living in rural area are expected to be benefited. Community road safety awareness was a key feature in raising awareness among villagers adjacent to the Dhaka-Sylhet Highway which was improved under the World Bank financed Third Road Rehabilitation and Maintenance Project.. Through a joint effort by Roads and Highways Department and BRAC (a leading NGO) an intensive road safety campaign was undertaken involving the community. This awareness campaign increased road safety knowledge among the rural people who are predominantly poor.

Compensation for the Victims: In Bangladesh half the population is identified as poor. The government currently spends less than five percent of annual expenditure on safety net, there is no specific allocation for the road accident victims. In most of developing countries the accident victims usually are deprived from compensation. The poor section

of the accident victims are seldom aware of their rights of compensation due to lack of knowledge. Although, under the third party insurance rules the victim or their relatives can get compensation but due to lengthy document processing time the victims usually lose interest. The inspector of the insurance company determines the amount of compensation based on the economic profile and age of the victim. Average compensation for death in Bangladesh is Taka 25,000 which is less than average annual income (Taka 30,000) of poor people. Bangladesh Road Transport Authority (BRTA) can pay (through an Executive Order) compensation to the victims (Taka 20,000 for death, Taka 10,000 for major injury, and Taka 5000 for minor injury) but most of the accident victims are unaware of it. As part of road safety campaign some of the NGOs (BRAC) have started public awareness campaign. Bangladesh Inland Water Transport Authority (BIWTA) has created a River Accident Compensation Fund (in cooperation with passenger launch owners association) which pays compensation to the victims. The fund is generated from user fee (25 percent of the O&M toll collected from passengers at ferry terminal) and annual compensation charge from launch owners. The same model can be followed also for road accident victims with fund generated from users and bus/truck owners. There is also an urgent need to fix the compensation rate based on current market price, and create awareness in rural areas about compensation where most of the poor people live.

Garment Workers: There are about 4000 garment factories in Bangladesh mostly located in Dhaka and Chittagong. There is not enough pedestrian facilities located around the factory locations. Most of the garment workers walk to work. Due to lack of space on the side walks they often walk on the pavement thereby causing risks for themselves as well as the motor vehicles. Since most of the garment workers come from rural settings and are from poor families they are unaware of traffic safety rules and as pedestrians are prime victims of road accidents. Focused road safety awareness campaigns by NGOs for the garment workers will not only reduce the chances of accident for themselves but being women and mother they would also be able to transmit their knowledge to the future generations.

Suggested Research Work: Accident Research Center (ARC) of Bangladesh is playing a pioneering role in the field of research on road accidents in Bangladesh. Their effort to date has been limited mainly to the technical aspects of road safety. Given the severe impact of road accidents on the poor community, ARC should carry out research related to socioeconomic indicators to reflect road accident's wider impacts on all main segments of population (women/men, young/aged, poor/rich, those with disability, and different income profile)

ABSTRACT

Death and disability under road crashes will move up to third place by 2020, ahead of HIV . Nearly one million persons are injured globally in road accidents, and seventy five percent of these casualties occur in developing countries. Poverty reduction being a key indicator of Millennium Development Goal (MDG) , incorporation of social development and participatory process has become key features in transport projects. World Bank, United Nations and World Health Organizations have joined hands in combating the silent epidemic on the world's roads. Road deaths and injuries are preventable, and the potential benefits to developing countries are huge. .Road collisions are the 4th leading cause of permanent disability for children in Bangladesh. There is an urgent need for NGOs to provide assistance to the road accident victims through community road safety program. The poor section of the accident victims are seldom aware of their rights about compensation. Accident compensation fund should be established with the cooperation of road users and vehicle owners. Accident Research center should carry out research on socioeconomic of road accident victims.

CONCLUSION/RECOMMENDATION

Road safety awareness campaigns should be directed to pedestrians (who are the most vulnerable road users, and accounts for more than fifty percent of road crash fatalities).

Since road crashes impacts on the poor most, and can plunge household into acute poverty, social safety net by the government should also cover assistance for the road accident victims.

More NGOs should be encouraged to provide facilities for physical and socioeconomic rehabilitation of the disabled.

Community road safety programs should be escalated in rural areas, and initiated for high impact groups (like garment workers).

Accident Compensation Fund should be established for the accident victims with the participation of road users , vehicle owners, and insurance companies .

Accident Research Center should broaden their research agenda to include studies on socioeconomic conditions of the accident victims.

