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Decentralization, Pro-poor Growth and Political Economy: An Example from Markets and Highways

Salim Rashid
and
A. K. M. Riaz Uddin

Abstract

The neglect of domestic infrastructure and spatial needs is perhaps the greatest failing of the current emphasis on development through globalization. By using a simple yet practical example involving the transportation infrastructure, this paper shows that the social benefits of infrastructure improvements achieved through cooperation may yield a rate of return greater than the social rates of return used in donor calculations. Nonetheless, the political economy of implementing such obvious improvements is complex, and the paper discusses some of the difficulties one may anticipate in trying to realize such improvements based on public-private cooperation.

Introduction

One can think of the struggle for economic development as composed of three different struggles. The country may lack resources - this involves a struggle against nature. The country may lack the ability to produce (say, a transistor) - this involves an internal struggle for acquisition of knowledge and skills. Both these struggles are well-known and discussed in the development literature. What is less emphasized is the struggle to overcome differences and convince multiple parties to work together for mutual gain. For economic progress to take place, citizens must partner to get things done. The most potent source of productivity gains may be internal to the economy – by changing the way we organize to get things done much can be achieved. This is where social policy becomes crucial. As Warren Buffet, the world's second richest man said,

> "I personally think that society is responsible for a very significant percentage of what I've earned. If you stick me down in the middle of Bangladesh or Peru or someplace, you'll find out how much this talent is going to produce in the wrong kind of soil." (Collins et al. 2004)

The development literature is replete with arguments in favor of globalization, but improved domestic coordination as a strategy is hardly mentioned. The only time domestic coordination and governance is discussed is in the context of mitigating corruption. This paper argues for increased emphasis on internal coordination and on local governance as a prerequisite for successful development in a market economy. This is illustrated by presenting results from an empirical study from Bangladesh's transportation sector that shows that the magnitude of expected benefits from such coordination may be substantial. The paper helps answers some interesting questions: Should the priority for policymakers be solving the domestic coordination problems, or the removal of the international trade barriers?[1] Of course, both are important, but which is more essential? How can we overcome the myriad challenges that prevent improved coordination and builds trust among local governments and various parties in the private economy?

The literature on financing economic development discusses two alternate approaches to development - demand responding to supply, or supply responding to demand[2]. Presently, Bangladesh seems to be on the path where generally demand responds to supply. Therefore, supply-leading (production enhancing) strategies need greater emphasis. Unfortunately, such policies are not just disfavored by donor agencies, often they are undermined by the relentless pursuit of myopic gains by local politicians. Using a case study, and details from the author's field work, the article discusses the challenges in getting local government involved in the broader task of economic development. Among lessons learned from this field experiment we find the biggest challenge is to work out the political economy of local governance and public-private partnership, in order to harness existing resources towards the economic development of Bangladesh.

National highways are built with the primary purpose for providing long-distance relatively quick mobility of people and resources. While driving long-distance in Bangladesh, one cannot miss numerous local bazaars that encroach on the highways with annoying

frequency. The resulting traffic congestion negatively affects both highway traffic and the shopping experience. One wonders, why is it not possible that the higher costs from traffic congestion that the bus owners and the businesses (and their customers) in these bazaars are paying would convince them to seek an alternate more efficient institutional structure? Under existing laws local governments lack the power and property rights to force an efficient solution by coordinating interested parties to reduce highway traffic from encroaching bazaars. If this were allowed, local governments would have additional motivation to devise strategies that work interested parties to coordinate long-run solutions to this traffic congestion problem[3].

These congestions are avoidable since there is no conflict between increased access and interregional mobility. In the following section, we discuss that with a few simple changes, the twin objectives of unfettered long-distance mobility, and (transportation) cost minimization can both be achieved.

Constructing a Bypass--Simple yet Potent

As the national highway between Dhaka and Chittagong has increased the market potential of the countryside, many small towns have sprung up from what were previously small roadside villages. Miyabazar is one such town that has grown rapidly from providing road side services to the long-distance travelers. However, in the absence of proper planning, the growth of this bazaar has been linear - along the length of the highway – causing considerable traffic congestion along the highway, and preventing the (agglomeration) benefits that could have been achieved. The main purpose of the highway is to provide easy and speedy transportation for people and goods. Paradoxically, in this case, the highway has created urban sprawl, which now impedes the easy movement of traffic.

The growth of Miyabazar from a local bazaar to a small town is certainly an expected and desirable outcome of the highway. However, the new town should not impede highway transportation or other economic benefits from the highway. A solution must be found that keeps the highway free of congestion, and yet allows the residents of Miyabazar to capitalize on its location near the highway.

Suppose we are able to to achieve decentralization so that Miyabazar has its own city administration with powers comparable to small towns in America. Would this help solve the highway congestion problem?

An analysis of congestion from the encroachment of roadside bazaars leads to two basic conclusions:

i) Traffic flows along the highway corridors should be kept uninterrupted.

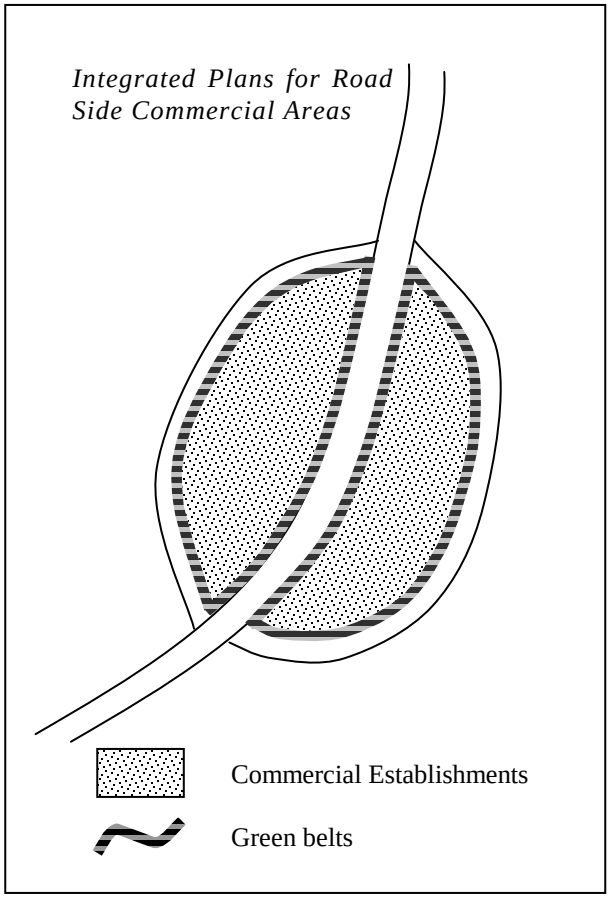
ii) Local commercial activities must be accommodated preserving full access to the highway and the national economy.

An efficient solution is reachable if the Government of Bangladesh[4] empowers local authorities to acquire land for public purposes, and if local governments such as the city of Miyabazar could persuade the interested parties to reconfigure traffic flows by constructing a simple bypass (see picture).

From the urban planning perspective, it makes sense to plan the space so that the area within the oval (see picture) would constitute a new business district (bazaar), while residential, medical and educational facilities would ring the outer oval -- beyond the bus and truck stops.

The proposed solution takes advantage of the spontaneous tendency of commercial activities to spring along transport networks. The shaded area inside the doughnut will accommodate commercial activities requiring basic facilities (service roads, utilities etc.) provided by the government. The bypass once completed will keep the inter-regional traffic flows uninterrupted and reduce the cost of marketing and facilitate agglomeration economies for the businesses and residents. The green belts shown along the interface of the commercial land will help reduce pollution created by the through traffic. At the interface, the green belt will restrict traffic from the adjacent commercial areas, whereas the green belt adjacent to the bypass will allow entry and exit only at specific points. The roads forming the two arms of the doughnut may be built at the district road standards that will by design discourage use by the faster highway traffic.

What will prevent buses and trucks from stopping on the main highway? For one thing, the local government has an interest in ensuring that traffic has access to the business; if Miyabazar has its own security, buses or trucks that stops on the highway could be fined to discourage them from adding to the congestion. Once the local administration is empowered, it will be in their self-interest to maintain free flow of traffic on the national highway.



The calculation of costs and benefits are outlined in the next two paragraphs (more details can be found in the appendix). The proposed road would be a two-lane highway with pavement width of 5.5 meters and embankment base width of 16 meters. A total length on each side of the highway of 1 km (1,000 meter) with the strips on both sides of 16-meters width (at the base of road embankment) seems to be enough for the bypass. For each side, the land requirement will be 16mx1000m=16000 sq. m. = 1.6 hectare=160 decimal. The field visits and interviews revealed that land prices vary significantly with distance from the highway; land values also rise from speculation. People are reluctant to sell land because they expect the price to rise rapidly with agglomeration. However, most land in the village, on average, costs Tk. 7500 per decimal. These values are dated since the survey was conducted in 2004-5.

Taking the values from true transaction (i.e., the market price) of land values rather than the prices mentioned in the registration documents, we get an average value of Tk. 30,000 per decimal for the bypass strip. Thus, the cost of acquiring land of each strip stands at [160 @ Tk. 30,000 = Tk. 4,800,000 (Tk. 4.8 million)]. For both sides, the cost is Tk. 9.6 million. The average construction cost of the highway is roughly Tk. 10 million per kilometer. Thus, for the bypass, construction cost stands at Tk. 30 million in total for both sides. To pay for the acquisition of land for the road construction, let us calculate the economic cost of travel delay caused by the current traffic pattern going through Miyabazar. This is done by measuring average travel time on a contiguous stretch of road and comparing it with the average time taken to traverse Miyabazar. This gives us a measure of the time lost in going throughMiyabazar, which happens to be just over 3.5 minutes. The value of time for each type of passenger is then computed from the available estimates of traffic flow and the time cost of travel figures. Simple calculation involves the time loss, the value of time to each type of traveler, and the flow of each mode of traffic. Thus, 3.69 minutes of time loss

multiplied by value of time per minute for each bus and number of buses per day equals daily loss for bus traffic. By repeating this for every time of vehicle, we can get an annual figure. We took separate figures for motorized and non-motorized vehicles as well as freight vehicles, assessed different figures for the value of time for each traffic type and then computed the total value of time lost.

The monetary value of travel time loss per year is approximately 65.62 million taka per year (See Appendix I). With the total construction cost of Taka 40 million for two stretches of 1.3 kilometers each, plus land acquisition cost of Take 10 million, this gives a total cost of Taka 50 million for the bypass. Note that this is only one of many such bazaars along the national highways, at least 50 of which could be selected for a curative 'bypass'--if one may be forgiven a medical pun. The rate of return works out at over 30% in ONE YEAR!!! One can (and should) question the accuracy of the figures. But even if the data are wrong by 30 percent, in terms of the benefits to society, the bypass still pays for itself in *one* year--and it is well above *anything* in the market. The task of the national and local governments should be to find ways to finance the expenditure and to recoup some of the costs from the benefited travelers and the enriched inhabitants of Miyabazar.

The arguments made above are capable of an easy extension to the national scene simply by extrapolating over the number of miles, traffic stops at market areas and by using the local volume of traffic to compute a 'quick and dirty' aggregate figure. The steps are explained in the Appendix I and show a National cost of Taka 6.2 billion or about a hundred million dollars[5]. This amount is about 14 times the development allocation for the transportation sector in the 2004-05[6] fiscal year. This dismal situation reminds us that while our bureaucrats and engineers spend so much time and effort in securing foreign funds, a closer attention to domestic rearrangements would expand our capabilities and provide significant additions to GDP transport value-added. (The loss for the regional and zila roads, which are smaller and less travelled by motorized vehicles, but which is a many-fold larger network, might give a much larger estimate, which it is left to the readers to guess.) The simple computations above reflect a staggering opportunity cost because much of the loss can be avoided through proper planning and coordination. One would think that the passengers, owners of buses and trucks, and the townspeople would see their mutual advantage and construct the bypass on their own. But such is not the case. Cooperation is not necessarily a spontaneous outcome.

Implementing Change: The Political Economy of Local Infrastructure[7]

What can be done to capture the substantial gains from redirecting traffic as described? Privatisation on a large scale may be the answer. If Miyabazar were owned by one individual, the person could undertake the necessary improvements and become richer in the process! The entire area would be planned in such a way that the economic value of the bazaar and the highway is maximized. This would involve keeping the highway free, making attractive stops for those who wish to rest or purchase local goods, providing incentives for secondary businesses to develop, constructing good residential houses nearby for the prosperous merchants, as well as schools and clinics for their families. These would result from a cool calculation involving long-run self-interest. However, privatization on this scale is neither feasible nor desirable. We do not want to grant monopoly powers to anyone. It is the function of local government to effectively replicate the actions that self-interest would require. Thus, the central government ought to enact laws that will empower local authorities to mandate parties to agree on a mutually beneficial solution. This is the challenge of local government design.

Why do the local authorities of Miyabazar show such little interest in initiating a planned expansion to reduce traffic congestion? Miyabazar is unusual in some aspects. It has the first restaurant, Highway Inn, built on the Dhaka-Chittagong Highway. The locale was suggested by bus owners, who felt the need for a quality rest stop for bus passengers on the long Dhaka-Chittagong road. They suggested the plan to a trusted engineer and even provided initial financing for the Highway Inn. Upon seeing the Highway Inn, a local police officer opened a garments factory close to the Inn. This is a remarkable instance of entrepreneurship since the conventional wisdom is that garments factories flourish only in, or adjacent to, large urban centers like Dhaka or Chittagong. Even the local government officials are quite satisfied (as of 2008). They have worked out a nice system whereby all disputes are sent to two non-partisan individuals for adjudication, whose judgment is then accepted by all. There is another market on the same highway in the vicinity of Miyabazar, but since that location did not attract any investors, this market

(Suagzi) did not develop. One would think that Miyabazar was an ideal place to exhibit benefits of foresight and planning.

Because of the traffic congestion, the chief of the transport terminal committee was a natural person to start with. However, this individual showed great reluctance about any scheme that involved coordinated action. He agreed to the benefits of the proposed plan but failed to show any enthusiasm for living in a planned village. Given individuals with a limited education and vision may not fully appreciate such a plan, the interview continued with a visit to the Chairman's office. Unfortunately, the Chairman was equally reluctant to involve the GoB in anything other than the use of acquired land. It turns out that there is extensive piece of land already acquired by the Government, 350 feet from the left hand side of the road. This reflects remarkable foresight on the part of the Government planners when the roads were first built. This is the sort of foresight---anticipating needs 30 years hence---that is sorely missing from current policy discussions. Unless the local officials agree to a change to reduce traffic congestion, nothing planned and extensive will grow.

Reflecting on the political economy of local government as it relates to encroaching markets and highways raises several issues. First, it cannot be denied that problems get solved usually when they are almost impossible to bear any longer. Unfortunately, people normally work together to solve only the urgent problem. The bus owners were happy to have set up Highway Inn and stopped all cooperation thereafter; the dangerous crossing of the main road within Miyabazar has been controlled by the simple expedient of putting a fence of iron railings in the middle of the road, all along the length of Miyabazar. The restaurants that have sprung up for a ten mile stretch along the Dhaka-Chittagong highway seem quite uninterested in the local government of the towns they are based upon. Local entrepreneurship allowed Miyabazar to outshine Suagazi and become a growth pole but establishing profitable establishments marked the extent of their involvement--the innovators move on to Dhaka. Every solution was good in the sense that it did solve the problem at hand. But such ad hoc solutions show no anticipation of the future.

Consider an alternative set of institutions, one which encourages the bus owners to ask the GoB to publish regular statistics on the growth of transportation; then the bus-owners, and other related entrepreneurs can project the consequent need for restaurants and CNG and petrol stations. Anyone who has travelled the road recently will know of the considerable number of CNG stations that now exist, relative to previous years. Is this cycle of feast or famine necessary? Of course, private enterprise is based upon risk-taking, but why can't the risks be more informed?

There are also concerns about other arrangements that currently exist. The restaurant owners do not seem to appreciate that if road traffic in Bangladesh keeps growing as it has in the past decade, pretty soon it will be unsafe to enter the restaurants from the main highway (without an exit ramp or similar feature), and this will be a grave threat to their businesses. The local government of Miyabazar is oblivious to the possibility of creating an innovative model urban area, and is only focused on current profits for those with power. When it was suggested that the GoB could actually help Miyabazar grow and prosper with long-run profits more assured due to planning, local officials expressed concern on involving bureaucrats in the future of Miyabazar. Distrust of Government weakens the possibilities of spontaneous public-private partnerships. Reduced returns to investment because of increased uncertainty and distrust eliminate many growth opportunities. Therefore, in the absence of cumulative causation, development policies increasingly resort to 'safety nets' rather than growth enhancing possibilities. One hopes that public works departments would have a vision of economic growth. Let us remember that cost-benefit analysis was invented by French engineers in the 1840's but this perspective is notable by its absence in Bangladesh.

Conclusion

The toughest social problems involve coordinating the actions of many. Public officials must help coordinate the activities of its citizens and enable the growth of self-governing civic bodies. Through example, and exhortation, governments can play the role of a catalyst in fueling economic development. To illustrate the point, this paper presents a simple case study – the construction of a bypass for the growth of businesses and to ease traffic congestion on the national highway.

If the benefit-cost estimates we offer are approximately correct, this paper establishes that cooperation and coordination are at least as important to help the poor as is opening new markets. It is true that taxation or municipal regulations to enable small towns like Miyabazar to finance their own

improvements do not yet exist. Enabling a legal infrastructure should be a priority for those currently engaged in poverty alleviation efforts in Bangladesh. This paper demonstrates the substantial rate of return from such projects, provided we empower local governments and encourage decentralization.

But should this not be a high priority for those who are currently engaged in a variety of pro-poor projects in Bangladesh? The simple improvement in infrastructure seems to have a high rate of return, supports local government and decentralization, and by improving transport flows, provides an essential step towards successful globalisation. Who will sponsor and support such a measure? Perhaps the most important constituency consists of the powerful international donors who wield great influence upon the economic policy of Bangladesh. Democratic transitions, economic prosperity, decentralised decisions, and competition are all very much the professed goals of the donors. Let us hope they chose to exert their influence in this area.

The citizens must be persuaded that cooperation at the level of local self-government is feasible and desirable. The government must demonstrate that it will provide the prerequisites for local solutions to work. The data from Miyabazar shows that if the bazaar were to place it's businesses slightly to the interior and plan a service road, there would be no loss of business and the 'linear town' that is now being created would be a much more livable place. While the loss for any one traveler is negligible, when multiplied to account for the millions who cross the bazaar every year, the cost of delays due to congestion becomes a considerable sum.[8]

Globalization will help the poor only if it provides them with opportunities to sell high-value, labor-intensive products overseas. How can the poor in Bangladesh achieve this dream of effective globalization? The greatest single need is for adequate infrastructure, and the practical problem is to decide how we can avail the poor take advantage of the infrastructure most effectively. Because of economies of scale, agglomeration economies, and the local public goods aspects of infrastructure, such questions cannot be effectively dealt with unless a minimum size is assured. For the future growth of Bangladesh to become a reality, the transport and communication costs must be lowered; this can be done by investing in infrastructure, which in turn requires decentralized planning, cooperation and coordination. Self-interest would achieve most of the heavy lifting in a free market economy, but perhaps we should place renewed emphasis on cooperation, co-ordination, and local government as the prerequisites for a market economy.

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Endnotes

1. For the move away from rural community development in India, and a critique, see Jain et al. (1985).

2. Patrick (1966) is the classic reference

3. There is an extensive literature on the productivity of infrastructure in Developed economies, see Aschauer (1988), Gramlich (1994), Fernald (1999), Hulten and Schwab (1997), Holtz-Eakin (1994), but the reader will see that our main arguments are independent of this literature.

4. The following acronyms are frequently used in what follows: GoB for the Government of Bangladesh and RHD for the Roads and Highways department.

5. Using the 2004 exchange rate, which is the survey year for national traffic data and the reporting year for the road user cost survey

6. The overall investment in transportation sector (28,394 million taka) was calculated by summing investment in road, railway and water transport projects in FY 2004-05. The data source is Annual Development Program 2005-06 published by the GoB

7. The literature on local public goods and the Henry George Theorem is closest in spirit to the questions asked in this section---see Tiebout (1956), Stiglitz (1974), Arnott and Stiglitz (1979), Stiglitz (1981), Banzhaf and Walsh (2008) and Khemani (2010).

8. Bhaluka in Mymensingh is a successful new industrial area on the main highway between the

capital and Mymensingh where growth is now being limited by outstripping the available infrastructure. The data from Bhaluka will show how the rise of land and house rents is a measure of the surplus generated by urbanization (following Henry George and William Vickery). This in turn will show the benefits that can be obtained by local financing of local public goods and infrastructure. The George-Vickery models deserve closer attention.

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Salim Rashid
Professor of Economics
University of Illinois at Urbana-Champaign
410 David Kinley Hall
1407 W. Gregory
Urbana, IL 61801 MC-707
E-mail: srashid@illinois.edu

A K M Riaz Uddin
Graduate Student
Department of Urban and Regional Planning
University of Illinois at Urbana-Champaign
1407 W. Gregory
Urbana, IL 61801
E-mail: aruddin2@illinois.edu

Appendix I

Estimating the Cost of delay Due to Roadside Bazaars

Estimation of the cost of wasted time due to the roadside bazaars comprised of two steps. Firstly, two surveyors including the second author collected first hand data from a given segment of Dhaka-Chittagong highways. This involved riding busses in the segment repeatedly and noting times between visible kilometers marks. The time log allowed for estimation of delay caused by each bazaar in the segment. Three bazaars namely the Choddogram Bazaar, Miyabazar and Hazi Sardar Bazaar were found in the surveyed segment that registered different duration of delay reflecting the intensity of economic activity in respective bazaar. These numbers as well as standard RHD estimates of mode-by-mode occupancy and opportunity cost of time (see Road User Cost Annual Report by RHD 2005 for details) gave annual estimate of delay added for most mode of traffic that pass the segment. For traffic volume data annual RHD survey data for different links within the segment were used. Estimated loss for the surveyed section was taka 287 million per year based on 2005 value. Separating out the value for only Miyabazar (3.69 minute over 11.33 minute total loss for the three Bazaars) we get annual loss figure of Taka 93 million.

Secondly we produced a national aggregate estimate for the loss generated by interference created by Bazaars. Since this was not feasible to replicate the above survey for all road segments in Bangladesh the surveyors made a visual count of roadside bazaars along Dhaka-Chittagong highways to make an estimate of number of Bazaars per kilometer of road segment for the national highway network in Bangladesh. We have taken the average delay for the surveyed segment and applied that to the extrapolated number of bazaars. However, the travel time loss was weighted for traffic volume in respective segments of RHD national highway network. In this way the total loss in the National Highway network came to17 million taka per day and 6205 Million Taka per year. The loss here is only those calculated for the national highways. The regional or zila roads network, which is obviously much more extensive, compared to national roads network would give a magnitude of estimate several time bigger than this.

Appendix II

Review of Relevant Literature

Public Finance

Tiebout (1956) sees migration within the USA as preference voting by migrants to the public goods bundle provided by local governments. A recent empirical test by Banzhaf and Walsh (2008) confirms the plausibility of this hypothesis. The efficient financing of local public goods using a tax on land values is suggested by the Henry George Theorem (Stiglitz 1977, Arnott and Stiglitz 1979 and Stiglitz 1982). Khemani (2010) offers an elaborate political economy account of infrastructure provision in India that would equally fit in with the politics and composition of public spending in Bangladesh.

Productivity of Investment in US

The transportation network has been repeatedly proved by the empirical literature as a leading public investment instrument to enhance productivity. Aschauer (1988) is the ground breaking work which sparked a new public investment focus. Gramlich (1994) confirmed that the enhanced focus did not create an investment bubble. Fernald (1999), however, gives a decadal comparison of the contribution of the road network to productivity which indicated diminishing return. The Gramlich (1994) diagnosis suggested shortages in certain types infrastructure in US. In the context of US the author directly concluded:

> *"The best approach is not to try to analyze the numbers and tell how short the supply is… A far more sensible approach is to set up institutional structures that permit state and local governments … to find their own optimal stock."*

Hulten and Schwab (1997) present a theoretical analysis of the fiscal federalism approach that supports decentralized decision making. Holtz-Eakin's (1994) empirical result has analytically dominated the macro approach in Aschaur (1988) and confirmed that local characteristics play a significant role in defining the connection between investment and productivity.