

The Rationalisation of Non Motorised Public Transport in Bangladesh

By

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Abstract

We propose to nationalise the rickshaw industry of Bangladesh. We argue that this will raise the social and economic status of the two million rickshaw pullers, and their eight million direct dependants. We believe that this intervention will be the most effective, efficient and innovative method of wide-scale poverty alleviation and progressive social change. This proposal requires the creation of a new public agency to acquire, manage and run both the infrastructure and economy of the rickshaw industry. Under this body, service users will buy tokens in order to travel by rickshaw, paying for their journey on a time basis. Rickshaw pullers, as uniformed state employees would receive a set and guaranteed wage, with the possibility of bonus payments and upgraded accommodation. The huge profits within the rickshaw economy would be taken over by the state and used to fund local rickshaw garage centred community development activities with the rickshaw population at the core. We argue that this proposal would have the largest impact on Bangladesh's largest marginalised section of society, without adversely affecting the quality of transport service currently available to rickshaw users, or costing the people and Government of Bangladesh any additional public money.

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Abbreviations

ADP – Annual Development Plan
BDT – Bangladesh Taka
DCC – Dhaka City Corporation
DFID – Department for International Development
DUTP – Dhaka Urban Transport Project
GDP – Gross Domestic Product
NGO – Non Governmental Organisation
NMT – Non Motorised Transport
UN – United Nations
USD – United States Dollar

Notes

1. All values unless otherwise specified are given in USD. The conversion rate used is \$1 = 69 BDT.
2. Photographs by T. Wipperman unless otherwise stated.

Ch.1 – Introduction

Bangladesh faces some of the greatest challenges of all developing nations. One of the world's poorest and most densely packed populations is growing in a region extremely vulnerable to natural disasters, and high social and economic inequalities combine to afflict the people further. .However, despite the challenges that it faces, Bangladesh also has some of the hardest working, sociable and motivated people in the world. There is a passion for change and development in the country, and a genuine national desire to create better lives for the vast population that can be experienced by the casual and long-term visitor alike.

This characteristic of hard work, energy and commitment can be harnessed to bring wide scale change to the country. But an intervention on such a scale must not only focus on the most disadvantaged communities, but be able to foster a process in which all Bangladeshis, regardless of status, gender or religion can participate. In this way, we believe an intervention can generate the social and political capital to be truly successful.

This principle lies at the heart of our proposal for, 'The rationalisation of urban non motorised transport and the social and economic upgrading of rickshaw pullers'. We have taken the largest single occupation group – rickshaw pullers – and a definitive symbol of Bangladesh – the rickshaw – as the core of a pro-poor, equitable urban transport proposal that is not only vital to the economic life of Bangladesh's cities, but incorporates all Bangladeshis in some way.

Through the nationalisation and rationalisation of non motorised urban transport, we propose to incorporate the two million rickshaw pullers in Bangladesh into the formal economy as public workers within a sustainable, carbon-free, low cost urban transport network. By formalising this enormous economy – 6% of Bangladesh's GDP – we will be able bring economic and social uplift to rickshaw pullers, bring better public transport to Dhaka's cities, and reach nearly 15% of the total population.. Our proposal is sweeping

in its scope but efficient in its implementation. It is a feasible and equitable way of bringing positive change to some of Bangladesh's most marginalised communities.

Ch. 2 - Background: The rationalisation of urban transport as a route to development

Since human life first emerged, the greatest challenge for urban development has been how to ensure the freest and most efficient movement of commodities, services and labour. The advent of industrialisation produced a population explosion and cities became larger and busier and richer than ever before, and the challenge of transportation increased correspondingly. Today in the global South, cities are growing at rates unprecedented in history; Dhaka has a population currently of around 12 million; it is expected that this will reach 20 million by 2020 (World Bank, 2007).

The capitalist economy relies on being able to move goods, people and ideas as fast as possible from one place to another (Harvey, 1982) and hence any activity that can hasten this process will often attract significant investment. Therefore if the megacities of tomorrow will ever be able to accommodate their people in anything like a socially just manner, the efficacy of their transportation networks are crucial to preventing squalor and suffering.

2.1 – Historical Transport Rationalisation: London

London today has one of the most extensive underground train networks in the world, carrying millions of passengers a day. The first line was a private venture, and further lines were added over time at the investment cost of private entrepreneurs who were given ownership of surrounding land as part of the deal to ensure that they could be profitable. But, as the city continued to grow, it became necessary for the government to invest more and more in ensuring the network grew to match. Private individuals will rarely invest in commonly used goods that have both a slow release time of embodied surplus value, and which cannot be made easily profitable through charging. Hence, governments tend to invest in roads, railways, sanitation systems and other collectively consumed goods that serve to make the economy grow faster and more efficiently, but which are consumed by all actors in the economy (Harvey, 1982, Castells, 1977).

London's public transport system was hence nationalised in 1933 because investment and returns were falling. In order to help ensure that transport and economic development grew, the State had to step in as a mass consumer.

2.2 – Contemporary transport rationalisation in the South: Curitiba

In the Global South the State has also taken measures to help rationalise its urban transport, hence promoting economic development. The city of Curitiba in Brazil is a prime example. Curitiba has one of the most efficient public transport systems in the world; buses link to major routeways with smaller, local buses at specially designed terminals, and the train network is designed to run in conjunction with buses so that people can easily move to the parts of the city to which they wish to go (Rabinovitch, 1992; 1996).

Across the world, successful economic cities have well funded, integrated public transport systems that are affordable and easy to use. The form of management – as leases, concessions or direct control – varies substantially, but in most successful cities the transport system is publicly controlled. Where systems are entirely private, such as the bus system in Edinburgh or Newcastle, UK, there is congestion, over supply for routes and unequal access to transport as routes are governed by profit, not service.

2.3 – Bangladeshi Urban Transport

In Bangladesh most urban transport is almost completely privately owned. Buses, autorickshaws and taxis are the most common motorised transport forms, and rickshaws are the most common non motorised form. , Roads are severely congested, and many buses in states of disrepair run the same routes competing for fares and passengers. Rickshaws are the most common form of transport about the city, and therefore they are primed for being rationalised for development.

Currently rickshaw pullers work for garage owners who have control over certain parts of the city; there is a certain level of organisation. Transport planners looking to rationalise public transport in Dhaka or

Chittagong, cities of tight roads and small lanes, should look to build upon the already existing situation of rickshaws and seek to incorporate them into the public, formal economic realm.

2.4 – Previous attempts to rationalise Bangladesh’s urban transport: the case of the

Dhaka Urban Transport Project

The World Bank funded Dhaka Urban Transport Project (DUTP), 1999 – 2005, was a major capital investment into trying to rationalise the urban transport situation in the capital. It has focused on major infrastructure projects because ‘the city’s urban transport problems cannot be solved by any single project’ (World Bank, 2005). However, the project did not reach expected levels of impact, and due to restructuring and problems with implementation, the project proposals were reduced by 40% in 2002 (*ibid.*).

A major aspect of this project was the introduction of non motorised transport (NMT) corridors in the city, of which three were proposed. However, after establishing the Mirpur Road corridor, the NMT programme faced heavy criticism so Mirpur Road remains the sole example. The World Bank reported that ‘the considerable social and political fallout from their elimination [the rickshaws] was unforeseen’, (World Bank, 2007: 29). Furthermore, rather than accelerating traffic, the average speed was raised from 19.2 km/h to 19.9 km/h. This demonstrates two things: firstly, rickshaws are not the real cause of congestion in Dhaka, and secondly, that rickshaw replacement transport will take its place. The first is shown by the nature of rickshaw travel. Predominantly, it is short journeys on minor roads inaccessible to larger transport, or off main transport routes. Rickshaws do not make long journeys, nor do they tend to travel along major routeways because they cannot compete for road space or passengers with the buses, which go further for less money.

The second issue is reflected in the World Bank’s report, where it notes that the reduction in rickshaws led to an increase in the number of mini-buses operating as a stop-and-go service that passengers could request to stop at any point along the NMT corridor

The World Bank project failed to be successful according to its own assessments and other commentators because it focused on private motorised vehicles, and not on the most popular transport modes. Dr Mahbubul Bari, a senior assistant transport planner for Transport for London, said that the plan should have prioritised popular low emission, small road space transport options (New Age, 2007). He made the point that in London virtually all inhabitants and commuters use public transport. The congestion charging in London, and similar schemes proposed in Edinburgh, New York, and Athens points towards car-free futures.

By contrast, the DUTP planned for a car-dominated Dhaka, and consequently failed to meet its own and others' expectations and had a negative social impact on rickshaw pullers and their dependants. This not only demonstrates the need to target intervention at the scale of the rickshaw pullers, but reveals how crucial management of rickshaw transport in Dhaka and other Bangladeshi cities is to a successful and congestion free city. Professor Mozaffer Ahmed said 'we have to adopt a plan for pro-poor and environment-friendly transport system in the city if we want to keep Dhaka liveable' (*ibid.*). This sums up the heart for the proposal contained within this document.

2.5 – Trends for rationalising rickshaws

It was noted in the original plan for DUTP that rickshaws would be developed into networks to serve transport networks and as feeder services (in much the way that Curitiba has done with local buses). However, this proposal was never carried through to the final execution of the DUTP due to the problems that the project faced. It is evidence though that the World Bank was considering mobilising the rickshaws as a public transport resource, and that there is therefore a history of thought along these lines. Furthermore, in Dhaka, the Dhaka City Corporation (DCC) has recently required rickshaws to obtain licenses and this reflects the willingness of the city to make some efforts towards rationalisation of rickshaw pulling in a way that is beneficial to pullers and their dependants. By taking on the criticisms of academics, supposed beneficiaries and the World Bank itself, it becomes clear that there is space for a bottom up transport

system with real efforts to support the change with rickshaw pullers and that Dhaka and other Bangladeshi cities are ready to accept such an intervention.

Ch. 3 – Situation Analysis: Rickshaw pullers as the largest disadvantaged group in Bangladesh

3.1 – Disadvantaged groups in Bangladesh

There are many groups and communities that are vulnerable in Bangladesh, for a host of different reasons. The poor farmers of North Bengal from Kurigram, Gaibundra and Rangpur suffer seasonal famines known locally as *Monga*. The indigenous people of Sylhet, Khagachuri and Rangamati have faced significant marginalisation and non-compensated seizure of their land. Stranded Pakistanis remain stateless. The refugee Rehinga people are denied access to services. There are HIV/Aids sufferers, prostitutes and a host of other marginalised groups in Bangladeshi society who require access to services, who are restricted by their poverty, and who suffer the daily struggle to provide for themselves and their families in a highly stratified, unequal and divided society.

However, these groups comprise a tiny minority of the 145 million Bangladeshis. There are perhaps 25,000 HIV positive people, around 200,000 Rehinga people, half a million indigenous communities. When the purpose of intervention is partly to reach as many people as possible, at the lower end of the social scale, then there is one constituency that stands out: rickshaw pullers.

3.2 – Rickshaw pullers as Bangladesh's largest disadvantaged community

There are around two million rickshaw pullers across all Bangladesh (Ali and Islam, 2005), Rickshaws are one of the country's symbols: foreign visitors know the rickshaw as part of the cultural production of the country (McAdam, 2002), but they are also vital to the economic functioning of the country (Gallagher, 1992), transporting everything imaginable, from people to animals, plastic flowers and machinery. Ali and Islam (2005) show that some 57% of all journeys made in Dhaka, the capital city, are on rickshaw, a vehicle that uses half the road space of cars and transports more people per vehicle than cars across all urban centres in Bangladesh. For some people, it is the only means of transport other than their own feet. Rickshaws are a vital social and economic part of the functioning of the country.

Ali and Islam estimate that 6% of Bangladesh's GDP can be accounted for by rickshaw pulling, whilst Gallagher (1992) shows that rickshaw pulling accounts for more of GDP than Bangladesh Biman Airlines and Bangladesh Railways combined. In Dhaka alone, around \$300,000 is estimated to transfer between rickshaw pullers and passengers per day (Gallagher, 1992; Ali and Islam, 2005).

This exchange supports an enormous amount of people. Around 14% of the Bangladeshi population relies indirectly on rickshaw pulling for their livelihoods (their families, manufactures, garage owners, painters, repair men). In Dhaka, 20% of the population relies on pulling or indirectly: this amounts to about 2.5 million people. It cannot be overstated how crucial the rickshaw is to the economic life of Bangladesh, especially amongst the poorest sections of society.

However, despite the vast amount of money that is exchanged between rickshaw pullers each day in the country, the rickshaw population comprises one of the poorest sections of society. Table 1 shows the average earnings per day in different parts of Bangladesh. Across the country, there is significant variation reflecting local economies, but all are low: a rickshaw puller in Bangladesh cannot expect to take home more than 150 Taka (\$2) on an average day. From this, they must pay rent for their rickshaw, at 50 Taka a day, and often garage food and lodging. On this wage they must try to support their families and themselves. The impact of their low wages is exaggerated upon their families: rickshaw pulling children are more likely to be illiterate and malnourished (Kabir, 2006). Pullers also have few, if any, assets.

Table 1: Average earnings per day for Rickshaw pullers across Bangladesh

<i>Income (BDT) from rickshaw pulling</i>	<i>Five Cities of Bangladesh (% respondent)</i>	<i>Overall</i>
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	Chittg	Dhaka	Sylhet	Rajshahi	Comilla	
Up to 33.00	0.0	0.0	0.0	3.9	3.7	0.8
34.00 - 66.00	0.0	2.9	3.0	14.4	23.2	6.0
67.00 - 100.00	8.8	17.1	15.0	31.4	21.7	18.0
101.00 - 133.00	18.8	28.1	30.0	23.1	22.3	27.1
134.00 - 166.00	47.1	22.2	25.0	22.0	19.1	24.5
167.00 - above	25.3	29.7	27.0	5.2	10.0	23.6
Mean Income	156.04	144.39	146.73	122.27	121.92	141.0
Rent/Income	22.22	26.91	26.15	26.61	26.43	25.01

Source: Ali and Islam (2005)

In addition to being economically marginalised, the rickshaw puller has low human capital. Few have more than basic education, with 38% nationally being unable to read or write, and a further 30% only able to write their name. Data for all of Bangladesh is shown in table 2. Rickshaw pullers also tend to die earlier, with most aged between 14 and 30, and very few managing to live beyond their 60s. This is a job in which people work until they die. Living hand to mouth, they are rarely able to save for the future, and there are few organised schemes like those of women on the streets in Mumbai (Nitti and Shayama, 2003).

Table 2: Level of literacy for rickshaw pullers across Bangladesh

<i>Level of literacy</i>	<i>Five Cities of Bangladesh</i>					<i>Overall</i>
	Chittg	Dhaka	Sylhet	Rajshahi	Comilla	
Illiterate	44.0	37.5	34.0	40.4	38.2	38.8
Can sign	31.9	31.2	26.0	35.4	12.4	28.9
Primary	14.3	10.9	16.0	11.1	33.7	14.3
Secondary	12.1	19.4	20.0	11.1	13.5	17.1
Higher sec.	0.0	2.3	4.0	2.0	2.2	1.6
Tertiary	0.0	0.6	0.0	0.0	0.0	0.1

Source: Ali and Islam (2005)

The conditions of life for rickshaw pullers further demonstrated their vulnerability and marginality. Those that do not live in their own homes (and given that most are migratory to the cities from famine or flood affected areas, these are few) will live in garages. The garage is typically a raised shed, with rickshaws underneath and up to fifty men crowded together on the floor (Photograph 1).

Photograph 1: A typical rickshaw garage in a Mohammadpur slum (Dhaka)



Garages are usually found in the slums around major cities, and even where they are in more formal urban settlements they tend to be on marginal, vulnerable land (Photograph 2).

Photograph 2: Typical sleeping area for rickshaw pullers, Mohammadpur slum (Dhaka)



The conditions of living are detrimental to health, as table 3 shows, and are highly inappropriate for people engaged in physical labour.

Table 3: Rickshaw puller's health condition, and complaints.

<i>Health and Sanitation Issues</i>	<i>Five Cities of Bangladesh</i>					<i>Overall</i>
	<i>Chittg</i>	<i>Dhaka</i>	<i>Sylhet</i>	<i>Rajshahi</i>	<i>Comilla</i>	
Health status same as before	15.4	7.8	1.0	10.1	12.4	8.5
Physical weakness started after	94.5	93.3	99.0	91.9	93.3	94.0
Use sanitary latrine	79.1	80.6	55.0	60.6	79.8	75.1
Safe drinking water	75.8	36.0	63.0	87.9	82.0	54.2
Dysentery	28.6	16.8	1.0	2.0	21.3	15.0
Breathlessness	30.8	33.5	2.0	18.2	44.9	28.9
Head-ache/body-ache	70.3	46.5	52.0	78.8	55.1	54.3
Skin disease	53.8	28.2	4.0	3.0	21.3	24.5
Cold and fever	54.9	24.0	4.0	30.3	62.9	29.7
Tuberculosis	1.1	1.7	0.0	2.0	9.0	2.2
Visual/auditory problems	12.1	9.3	0.0	3.0	32.6	10.2

Source: Ali and Islam (2005)

In addition to the poor economic, social and human capital of rickshaw pullers, they face daily discrimination because of their job. Though not the poorest of the poor they are viewed at the bottom of society. The testament of pullers is evidence of this, 'we pull beggars and shoeshine boys. We are last in society' says Kamal, a puller in Mohammadpur, Dhaka (Wipperman, forthcoming). Habibur, a puller in central Dhaka, says that 'pullers are donkeys' and 'everyone treats us badly' (*ibid.*). The police beat them, puncture their rickshaw tyres for little reason, break rickshaws and refuse them fares (*ibid.*). Mostafiz, from Kilgaon, says 'there is nothing else for us to do. No one wants to be a rickshaw puller'. Matin, a puller from Sadarghat in Dhaka wants his son to be anything but a rickshaw puller. The pullers themselves view their job negatively. Kamal has pointed out that new rickshaw licences list a rickshaw puller's obligations to his passengers, but not a passenger's obligation to the puller. This sums up well the general low status that rickshaw pullers have in society and the lack of respect and dignity that they suffer.

3.3 – Rickshaw pullers as a largest target group for intervention

If an intervention wishes to make as large a social impact as possible then given the combination of the community size, its economic and social contribution and position targeting the conditions of rickshaw pullers has to be priority: An intervention aimed at rickshaw pullers would need to be targeted at raising their social status, raising their income and ensuring that this is secure, and rationalising the transport of Bangladesh so that it can be more efficient and effective.

Ch. 4 – Our Proposal: The rationalisation of non motorised public transport in urban Bangladesh

We propose to address the problems of poverty and social inequality in Bangladesh by nationalising the non motorised transport community for private travel, creating a public transport system across Bangladesh, managed on a local level, but working towards national social and economic development.

4.1 – Objectives of the proposal

Our proposal ‘The rationalisation of Non motorised Transport in Urban Bangladesh’ has five main objectives, outlined in box 1.

Box 1: The objectives of this proposal

1. To rationalise the public transport network in urban Bangladesh in a sustainable manner.

We believe that through the mass acquisition, licensing and management of the rickshaw-pullers, we can provide a fully functioning, economically efficient, reliable public transport network which could be a source of national pride for Bangladesh. The huge revenues that nationalisation will bring will be invested in to improving the lives of the employees, and as the market for NMT will always exist on a large scale, we find no reason that the transport system would not be completely self-sustainable after initial investment.

2. To improve the quantity and regularity of rickshaw pullers’ income.

By removing the economic transaction from the private sphere of puller and passenger, to passenger and State, we will be able to manage and guarantee the income of the rickshaw pullers, who will be State employees. By maintaining a base rate of 100 BDT a day the rickshaw puller not only see his income raised, but the rickshaw puller will be able to plan and invest his wage, rather than surviving on a hand-to-mouth basis.

3. To improve the quality of infrastructure used by rickshaw pullers.

By nationalising the rickshaw industry/economy, the huge surplus revenues accrued after the rickshaw-pullers labour costs can be re-invested in the infrastructure that maintains the industry, rather than being lost in the private economy of the rickshaw garage owners. Improving the rickshaw garages, and therefore the living conditions of the rickshaw-pullers would make a huge improvement to the rickshaw-puller’s welfare and ability to work.

4. To improve the social status of rickshaw pullers and their dependants and their relationship with the wider Bangladeshi society.

By changing the status of rickshaw pullers from poorly educated private individuals to employees of the Bangladeshi State, nationalisation therefore would create status equality with other public sector workers, and correspondingly bring the welfare of a huge section of

the poorest members of Bangladesh's citizenry under the responsibility of the Bangladeshi state.

5. To start rickshaw-centred development initiatives in urban Bangladesh.

Using the surplus revenues, our proposal would release a huge capital increase in to development funding in Bangladesh. As rickshaw pullers and their dependants comprise 14% of the entire Bangladeshi population, to ring-fence this new funding around the rickshaw community would have the biggest positive effect in terms of social empowerment and poverty alleviation.

4.2 – Project operation

For a country the size and with the demographic diversity of Bangladesh, the day to day management must be administered at a local level, responding to local considerations and markets. However, it is crucial that all Bangladeshi rickshaw pullers work for the Bangladeshi state; they are members of the public realm and seen as making a contribution to the good of their country, rather than working because they have no other option for survival.

The economy of the rickshaw sector should be centrally maintained, so as to create equity across the country. For example, should one region perform badly due to natural disaster, it could receive temporary subsidy from the surplus of another region. Also, greater regional economic equity in the sector would act to discourage the migration of workers to distant areas where there is greater demand, and allow them to be closer to their dependants.

A chief benefit to our proposal is that the **infrastructure necessary to deliver the system is already in place, tested, and functions effectively**. The level of new investment required therefore is relatively small for a project on this scale, and the amount of capital that flows through the rickshaw economy (see section 4.4) and the projected revenue for the State after nationalisation means that costs could be recouped within a matter of months.

4.2.1 – Nationalisation of the Rickshaw-Transport sector

All rickshaw garages and their assets would be acquired by the Bangladeshi State or the managing authority acting under licence from the State. Every rickshaw puller working at each garage would be registered, and given a uniform to make it clear that not only is he working in a specific area, but he is a legal employee of the State and is providing a public service, rather than a private one. Non-registered rickshaws would be illegal; this would compel the service users to immediately adopt the new system – an advantage of the public nature of using a rickshaw.

Rickshaw garages and the land that they are built on will become government property. The existing owners of that property will be compensated for the value of that property, and for loss of future income up to a period of three months. If the property already occupies government land illegally – as many garages currently do – then compensation will be limited to income loss.

The non-puller employees of the rickshaw garages, including garage owners, will be given the option to continue working in the industry as garage managers, as they possess crucial knowledge and experience of the transport sector and associated industries (such as mechanics). However, those who have been found to be involved in illegal activities will obviously not be retained.

4.2.1.2 – Changes to Fare Operation

The cost of using a rickshaw would be determined by the **length of time** a journey takes. A chart would be clearly available in each and every rickshaw, and would be set by the managing authority, taking in to account transport infrastructure, traffic and other localised issues. As a guide though, we have estimated that a level of two BDT per minute of hire to be an appropriate value for labour – this reflects current informal fare levels. We have concluded that this is the simplest and fairest mechanism to determine payment, least susceptible to fraud/dispute, and allows mutual incentives for both the passenger and the rickshaw puller to be enjoyed, shown in box 2.

Box 2: Benefits of time based fares

- Attaching a heavy-duty stop-clock to a Rickshaw machine would be relatively inexpensive.
- A time-based method of payment is also the fairest means of measurement, as it responds equally to both distance of a journey and external factors such as traffic.
- A time-based method is the least disputable, as it is a transparent process, and can even be cross-checked by the passenger should there be suspicion of fraud. However, should a passenger be determined to dispute a value, as rickshaw pullers would now be public servants, the same as policemen, we believe that the rickshaw puller could now confidently employ a police officer as an arbiter, whereas under the current system this is very unlikely. Should the police officer also engage in defrauding the rickshaw puller, then the rickshaw puller, as a public servant, would have both the right and the means to report his fellow official.
- Similarly should a rickshaw puller attempt to defraud a passenger, then the passenger would be able to complain to a police-officer or the rickshaw puller's garage, as the rickshaw puller is no longer a private worker, rather he is providing a state-sponsored service, and is bound by specific policy and practice guidelines.

It is in the best interests of both the rickshaw puller to transport the passenger to their destination as quickly as possible, so the rickshaw puller can then seek another passenger and a higher wage, or finish work earlier, and so the passenger may reach their destination with the least disruption.

Rather than engage in a private financial transaction with the rickshaw puller, the passenger would pre-pay for using a rickshaw, buying tokens which would be widely available across retail outlets in Bangladesh, much like the current 'flexiload'¹ phone-credit system.

The transactions of the retail outlets and the local authority supplying the tokens would be recorded and regulated to ensure transparency and a certain level of supply to the market. The retail outlets would be able to make a small profit, similar to the flexiload system.

¹ If one wishes to acquire pre-pay mobile phone credit, it is possible to go in to any shop or even a street-stand which advertises the service, pay money to the vendor who will enter the transaction in to a phone system, record it, and you will be credited in to your phone-account instantaneously. These facilities exist all across Bangladesh, in their thousands. We believe there is no reason why rickshaw tokens could not be sold in a similar fashion.

The rickshaw puller would then hand in their tokens at the end of every day's work to their registered rickshaw garage, and this would be recorded. The rickshaw puller would receive a standard weekly wage, which would be guaranteed. The wage rate would be reviewed every year, to take in to account market levels. The rickshaw puller would be expected to earn a certain number of tokens every week, set on the basis of the local economic climate. This would enable the rickshaw puller to have a certain level of flexibility, i.e. work more one day and less the next, but also ensure that a certain level of supply is delivered to the market, and the whole system is financial solvent.

For example, the puller would be contracted to recoup 750 BDT a week in tokens back to the rickshaw garage – which would require six hours and 15 minutes of metered driving. The rickshaw puller would then be paid 500 BDT in return for this service. A bonus-payment system would also operate, so after the rickshaw puller recoups 750 BDT, any extra could be rewarded. However, this would be monitored to ensure that some rickshaw pullers are not making extra money whilst other rickshaw pullers can not fulfil their contracted requirements. Should there be a large surplus of demand, or not enough demand in an area, the base levels of capital flowing through the system could be adjusted to reflect this. However, unless a puller grossly and continually underperforms, a base rate of 100 BDT per day would remain guaranteed.

On the same financial model as above, if a rickshaw garage was earning back a surplus of 250 BDT per rickshaw puller, then this money would be used to cover administration and management costs, and fund the social development programmes provided for rickshaw pullers and their dependants. However, the garage itself would not be responsible for administering this capital, as the development aspects of the project would be managed separately. The role of the rickshaw garage administration is solely to deliver a local transport service, with all the responsibilities this implies, such as human resource management.

4.2.2 – Rickshaw garage centred development

Of the surplus income generated, funds would be allocated to improve the infrastructure of the garages themselves. Each garage, for example, would be developed into a concrete structure, with piped water, electricity, a common eating area, sanitary washing areas, individual sleeping areas, and a common space for public use, which could range from cultural performances to vaccination programmes. In this manner, each rickshaw garage would become a beacon of community development and social improvement.

Through this project the State guarantees the infrastructure, so local and international NGOs would be able to bid for contracts to deliver services, designed to improve the lives of the rickshaw puller, their dependants and the wider community, with the garage serving as a hub for activities. We would aim for the garages to become seen as a focal point for community organisation, rather than a building where international workers help rickshaw pullers – this would be a key aspect of breaking down the social divisions that currently exist between the rickshaw pullers and Bangladeshi society. There is a precedent for such programmes – in Mumbai, community managed toilet blocks have been used as community centres for education, HIV and AIDS programmes and community mobilisation (Ruet, S *et al*, 2002)

Another consequence of this civic intervention would be to provide another means of social gathering, as an alternative to the current status quo dominated by the mosques and the political parties which has dominated Bangladesh. As a form therefore of grass-roots empowerment, the reformed rickshaw garages would offer an amenities space in which local communities can interact and form new relationships with each other and the local rickshaw-puller population – and given that pullers will be public sector employees, this will be a new opportunity for people to engage with the Bangladeshi State.

4.3 – Size of impact

By rationalising the rickshaw economy and to inject hundreds of millions of dollars worth of funding every year in to this economy would have a substantial positive impact in lifting one of the poorest sections of Bangladeshi society out of poverty.

Moreover, by investing the surplus revenues in to community development work, we believe our proposal would have a significant impact in to breaking down social barriers in Bangladesh, removing stigma, and helping to create a more equitable, harmonious society, not just economically better-off but with greater social justice. This proposal is internally sustainable and does not rely on foreign aid or the Bangladeshi government to inject capital every year. We envisage this project to be viable as long as the rickshaw is a viable mode of transportation in Bangladesh.

Whilst all of Bangladeshi society would benefit, there are certain groups which the rationalisation of non motorised transport will have a more direct impact upon. We have attempted to define these groups as follows:

4.3.1 – Rickshaw-pullers, and their families

Nearly two million rickshaw pullers have an average family size of 5.2 (Ali and Islam, 2005), which means approximately 10.4 million people directly depend on the rickshaw industry for their livelihoods. Our project would bring the welfare of these people under the responsibility of the Bangladeshi state. Steady employment is the main aspiration of the poor (Bello, 2006). By receiving a guaranteed weekly wage, with the possibility of a bonus income for high performance, the rickshaw puller would be able to ensure that they could provide a basic level of education and health-care for their dependants. This would have a huge impact upon breaking the generational cycle of poverty. Our proposal would also aim to remove the social barriers that currently exist between the rickshaw population and the rest of the Bangladeshi citizenry.

4.3.2 – Rickshaw passengers

A benefit of our proposal is that it does not change rickshaw usage practice – but does aim to provoke a cultural shift. The impact for passengers is that they will have to purchase tokens for the value of their journey in advance, which will be available in multiple outlets across Bangladesh, and rather than taking a private means of human-powered transport, the passenger will be using a national service provided by employees of the Bangladeshi State.

4.3.3 –Rickshaw garage managers and owners

Our proposal, through the nationalisation of the rickshaw industry and the consequent reallocation of the surplus revenue from the private realm to the public, will have a detrimental affect on the economic well-being of some rickshaw garage managers and owners. As our economic data in section 4.4.1 shows, the rickshaw industry is a lucrative business for those who can exploit the puller’s labour effectively. However, research has shown that much of this money finds its way to Bangladesh’s illegal economy, and often contributes to other illegal activities, all to the detriment of Bangladesh.

It is estimated that with an average of fifty rickshaws operating from one garage, there are around 32,000 rickshaw garages in Bangladesh (Kabir, 2006; Ali and Islam, 2005). The actual ownership of the garages and the garage’s assets is often concentrated in to the hands of syndicates. They will be offered compensation for any legitimate losses due to the state’s acquisition, but given that many rickshaw garages are situated on government-owned land, and run through highly questionable and un-transparent business-practices, we estimate that many owners might prefer to suffer a loss of income rather than have all of their business affairs subject to government audit, particularly given the current political climate in Bangladesh².

4.4 – Project financing

Whilst the proposal is designed to alleviate poverty across the whole of Bangladesh, directly affecting nearly 15% of the population (22m people), it will not require a constant stream of outside capital after an initial investment – the money already exists within the system, substantially. We propose to simply formalise the economy and make the surplus available for socially progressive purposes.

4.4.1. – The rickshaw economy today

Today, the average daily taking for a Dhaka rickshaw puller (where around 30% of all Bangladesh's rickshaw pullers work) is 140 BDT. After rent of the rickshaw vehicle, shown in table 4, lodging in the garage and other expenses, the rickshaw puller expects to take home between 80-100 BDT a day.

Table 4: Rent of rickshaws across Bangladesh

<i>Rent of Rickshaw (BDT/day)</i>	<i>Five Cities of Bangladesh</i>					<i>Overall</i>
	Chittg	Dhaka	Sylhet	Rajshahi	Comilla	
Maximum	50.00	50.00	50.00	50.00	50.00	50.00
Mean	34.67	38.85	38.37	32.54	32.22	35.33
Median	35.00	35.00	35.00	30.00	30.00	35.00
<i>SD</i>	<i>17.19</i>	<i>20.11</i>	<i>22.35</i>	<i>18.93</i>	<i>14.80</i>	<i>19.65</i>
<25.00	9.90	3.00	12.00	22.60	15.6	12.00
26.00 - 30.00	64.80	13.90	15.00	32.40	48.30	34.70
31.00 - 35.00	15.20	45.40	35.00	12.00	10.20	23.30
36.00 - 40.00	9.90	9.30	10.00	9.90	21.80	12.20
41.00 - 50.00	1.10	25.90	27.00	25.10	4.10	16.20
>50.00	1.10	2.50	1.00	0	0	1.6

Source: Ali and Islam (2005)

Nationwide therefore, on the basis of their being around two million working rickshaw pullers in Bangladesh, (Ali and Islam, 2005) approximately \$4.1 million flows in to the rickshaw economy every day. \$2.9m remains the property of the rickshaw pullers. The excess \$1.2m is therefore money that, were the Rickshaw sector nationalised, could flow back every day in to the Bangladeshi state - \$529m per year.

Given that the Bangladeshi national budget for 2007-2008 totalled \$12.63 billion, with \$3.83b allocated under the Annual Development Plan (ADP), our project would effectively introduce an increase of 14% to the ADP.

The recent World Bank funded DUTP (see section 2.4) had a total budget of \$140.3 million for a five year period, albeit only in Dhaka (World Bank, 2007). This puts the projected revenues from this proposal in to perspective. Our project would be raising over \$2.5 billion over a five year period, ring-fenced to improve the welfare and efficacy of Rickshaw pullers, their families and their service they provide over the whole of Bangladesh.

4.4.2 – Initial intervention costs

Whilst the money to fund the project exists largely within the rickshaw economy, obviously some initial capital will be required for the acquisition of infrastructure and creation of the management institutions. At this conceptual stage of the proposal, without commissioning specific research we are unable to accurately estimate how much this would be. However, we have made the following reasonable assumptions, and crucially, given the huge surplus that is guaranteed to be collected, we know that the initial costs can be managed.

There is no existing data on the level of depreciation for rickshaws; given that they are constantly repaired and maintained. The cost of a new rickshaw is approximately 10,000 BDT. Given the lack of data we can only estimate a reasonable compensatory rate for the mass-acquisition of rickshaws, of 7000 BDT, or \$100³. This sum should sufficiently cover the cost of the vehicle,

We calculate that for the State to purchase all existing rickshaws in Bangladesh, with the associated parts and administrative costs to cover this operation, would require \$100 per rickshaw. (The cost of a new rickshaw, by comparison, is approximately \$115). Given that there are around 1.6m rickshaws operating in Bangladesh (Ali and Islam, 2005), this means that the total cost for the proposal, including institutional development and administration would be around \$160m.

³ As at June 2007

Rickshaw garages occupy small pieces of land, much of which is already government owned, therefore land costs are likely to be relatively low. To compensate garage owners for three months income, based on an average of 50 BDT per day will require \$83m. This is based on an average of 50 rickshaw pullers per garage and 32,000 garages nationwide. Including land acquisition costs we feel it reasonable to budget for \$100m for land and earnings compensation. **In total, therefore, initial start up costs are \$260m.** In comparison, an alternative transportation project costing a similar sum would be the annual bill for a Formula One racing team.

This start up capital would have to be financed by a loan: revenues from the project, however, make such a loan very sustainable.

4.4.3 – Expected income and expenditure

Table 5 shows the expected income and expenditure of the project, based on data from Ali and Islam, revised to meet our project objectives. Everyday across Bangladesh, nearly \$1.5 million surplus is accrued.

Table 5: Expected income and expenditure

(a) Expected income

Gross Income (USD)			
	For one Rickshaw-puller	Across Bangladesh (1.6m rickshaw pullers)	Per Rickshaw Garage (32,000 in Bd)
Daily	2.17	3,478,260.87	108.70
Weekly	15.22	24,347,826.09	760.87
Yearly	793.48	1,269,565,217.39	39,673.91

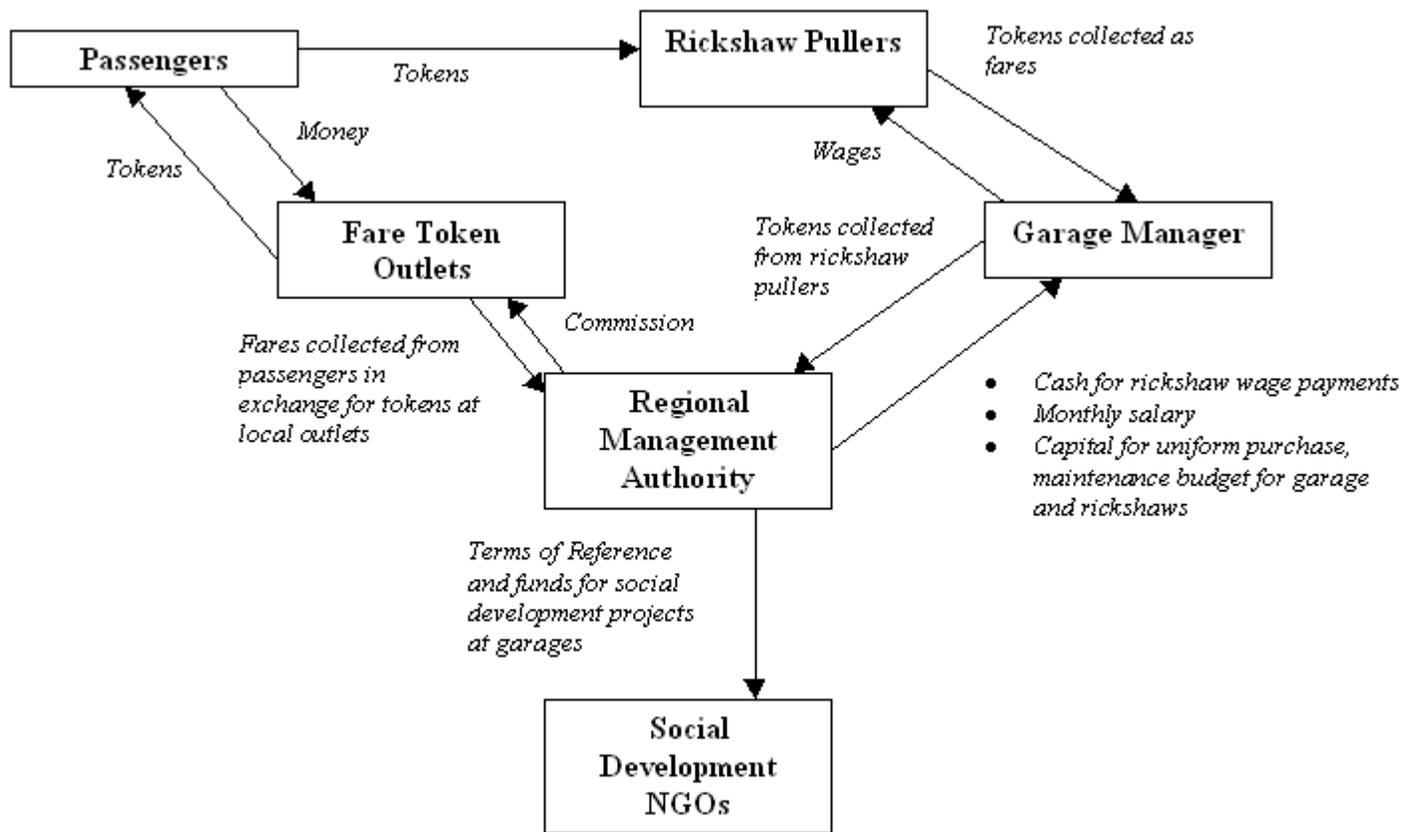
(b) Expected expenditure

Gross Expenditure (USD)				
For one Rickshaw-puller	Across Bangladesh (1.6m rickshaw pullers)	Per Rickshaw Garage (32,000 in Bd)		
		Rickshaw Puller	Rickshaw Garage Manager	Rickshaw Garage Total

1.45	2,318,840.58	72.46	7.15	79.61
10.14	16,231,884.06	507.25	50.03	557.28
528.99	846,376,811.59	26,449.28	2,608.70	29,057.97

Diagram 1 shows the flow of capital through the system, with money going in one direction, and leaving the circle through the local management.

Diagram 1: Flows of tokens and money in the system



Based on these calculations, every year we will generate nearly \$1.6 billion. From this income, we will be spending an annual total of almost \$1.1 billion on rickshaw puller and garage managers. The average public sector wage in Bangladesh is \$754 a month (UN, 2004). This includes top level civil servants and military personnel, which distorts the average. We are proposing to pay the rickshaw garage managers \$214 a month – which is precisely the current GDP per capita. (World Bank, 2007). The rickshaw pullers will earn just above their current average wage, the difference is they are able to earn more if they choose to work more intensively, and their pay now is guaranteed, and includes benefits.

As table 6 shows, the revenue returned to the managing authority is \$538 million per year, across Bangladesh.

Table 6: Surplus or deficit of project

Net Surplus/Deficit of project (USD)			
	For One Rickshaw puller	Per Rickshaw Garage	Across Bangladesh
Daily	0.72	29.08	1,159,420.29
Weekly	5.07	203.59	8,115,942.03
Yearly	264.49	10,615.94	423,188,405.80

4.4.4 – Disbursement of Revenue.

The \$538m annual surplus would have to cover institutional costs, and is the source of funding for garage improvements, development work and the bonus payment system for rickshaw pullers. Given that Bangladesh's 2007-2008 national budget only allocates \$553m for the administration of the national energy sector, we are confident that our newly created managing authority would be able to operate with far less than the \$538m available, leaving enough money for significant investment in the development portion of the proposal.

4.5 – Proposal implementation

As a basic guideline, we would expect the steps outlined in box 3 to be necessary for the successful implementation of the project.

Box 3: Stages of project implementation

- 1) Creation of government agency to manage and take responsibility for project
 - a) Full auditing of costs necessary for initial start-up of project
 - b) Application for loans from international donors to begin project
- 2) Selection of pilot city of a suitable scale, e.g. Sylhet
- 3) Design and production of tokens to enter in to the rickshaw economy
- 4) Acquisition of existing NMT infrastructure in pilot city
 - a) Education of rickshaw pullers of their new position, rights and responsibilities
 - b) Education of rickshaw managers of their new position, rights and responsibilities
 - c) Mass public-awareness drive for the new system
- 5) Provision of uniforms for the rickshaw pullers, metres for the rickshaws, and dissemination of tokens to retail outlets
- 6) Launch of system in pilot city
- 7) Reviews and re-assessment for period of one year
 - a) During this period, surplus money accrued could be used to service the debt on the loans taken to deliver the system nationwide.
 - b) Surplus money should also be used for essential infrastructure improvements both on the garages themselves and the rickshaws.
- 8) Once system proven to be satisfactory, rolling out of the service across other cities and towns in Bangladesh, gradually increasing in size and scale, over a suitable period i.e. one – two years, repeating steps 3-6.
- 9) Final system implementation in Dhaka
- 10) With economy stabilised, begin to fund rickshaw-centred development indicatives.

Whilst this is clearly a basic timescale and plan for implementation, we also believe that this realistically shows the core steps necessary for the delivery of our proposal in to reality. As we have shown, the project would instantly begin to recoup funds; the economic cycle would undergo minimal disruption. And whilst we expect to face many obstacles, as described in Chapter 6, fundamentally we believe that our proposal works so greatly for the benefit of Bangladesh, and for such a large section of Bangladeshi society, that once the process of implementation is begun, it would be able to survive and surpass all challenges.

Ch.5 – Garnering Support for our Proposal

Whilst our proposal's implementation would have a minimal impact on the day-to-day functioning of the NMT industry, it would require significant institutional changes within the Bangladeshi state – the creation of an agency to manage the new service, and the incorporation of the vast rickshaw economy into the public realm. For the project to run effectively therefore, it would require a concerted joint effort of support and co-operation from various sectors of Bangladeshi society. We believe that the benefits to Bangladesh of the rationalisation of the NMT industry are so great that the motivation should exist to make the proposal work. To garner support from each necessary sector, the following justifications must be made:

5.1 – Rickshaw pullers

Rickshaw pullers themselves are very aware of their social predicament; they enter the profession because they feel they have to, and they are often not proud of it. (Ali and Islam, 2005). They do however meet a substantial market demand for NMT; it would not benefit Bangladesh if all the rickshaw pullers left the industry. In interviews, they have spoken of their need for a stable and reliable income: 'Every day I do not know how much I will earn. This is a problem for me, especially when prices change' (Kamal speaking in Wipperman, forthcoming). Our project would meet that need and work to improve the social status and living conditions of them and their dependants. Their professional practice would not need to be altered. We believe therefore that garnering support from the rickshaw puller population would not pose problems.

5.2 – The National Government of Bangladesh

The legitimacy of any government, especially in a democratic system rests on how it manages the welfare of the people under its charge. Our project would clearly make a huge positive contribution to the welfare of nearly 15% of Bangladeshis, specifically those who need it most. The political benefits of adopting our proposal clearly outweigh any potential difficulties, and given the current political climate in Bangladesh,

and the economic sustainability of our proposal, we believe that it would clearly be beneficial to the Bangladeshi government to support the adoption of our proposal.

5.3 – City Corporations

Dhaka City Corporation, the managing authority for the city where the majority of rickshaws are based, has since 2006 begun a process of licensing rickshaws and attempting to register the pullers. This ambitious project, albeit with no development purpose shows that there is a clear willingness to engage with the rickshaw industry and to be able to intervene more effectively in its operations. We believe that taking over the management of the rickshaw industry is not beyond the capacity of the city corporations; especially as we would aim to retain individuals who already have management experience of the NMT sector.

5.4 – Retailers

For our proposal to operate effectively there would have to be blanket availability of tokens for payment across Bangladesh. However, as we have already noted, this would merely have to replicate the existing availability of mobile phone credit outlets in Bangladesh. The retailers would be elevated to playing a crucial role in the economic cycle of the rickshaw industry, but they have already demonstrated their ability to play a similar role in the telecommunications industry, and the benefits to the retailers of playing that role would again be replicated by being a source of tokens for the national public transport service. Additionally, some small businesses already sell bus tickets in advance for private networks in operation in Dhaka; there is a precedent for retailers to be involved in the transport sector. We believe therefore that there should not be any opposition from retailers to their crucial role in our proposal.

5.5 – NGOs and Development Organisations

The prevalence of NGOs reflects the demand for social assistance in Bangladesh, but there are no NGOs working specifically for the rickshaw community. Development work that is aimed at rickshaw-pullers is often unsatisfactory, for example posters about HIV and AIDS being put up in rickshaw garages are written

in English, while the intended beneficiaries cannot even read Bangla. Were the funds made available for a huge push on focussed community development interventions in Bangladesh, it is certain that organisations would apply for the money. The additional benefit of our proposal however is that the donor would be the Bangladeshi State, so contracts given would be under strict regulation and co-ordination, to ensure maximum efficacy.

5.6 – Users

One of the key benefits to our proposal is that the visible operation of and user experience of NMT is hardly disrupted. After the changes in payment are understood, we do not believe the user experience would be inconvenienced by purchasing tokens in advance. As we have demonstrated in section 6.1, the disincentives for the user to co-operate with the new service are minimal, so we believe that garnering support from the users of rickshaws, who make tens of millions of journeys by rickshaw every day, would not be a problem.

Ch.6 – Potential Obstacles and their Solutions

This proposal operates on a grand scale and so potential pitfalls and obstacles are many. However, we feel that these can be mitigated against and ensure that implementation is ultimately successful.

6.1 – Potential Obstacle: Service users will not be prepared to change behaviour

This proposal relies on the rickshaw users being prepared to moderately change their usage behaviour so that they buy tokens in advance and do not hand money over to rickshaw pullers. The current system works because it is easy, whereas this proposal will add a further stage to the transaction: users must ensure that they have sufficient credit in the form of tokens to make a journey.

It will be necessary to run a public education campaign across all mass media in advance to inform users about the change in the way they will use rickshaws. Rickshaw pullers themselves will be able to inform people of changes, and can be issued leaflets to give to their passengers: this will also start the process of incorporating them into public service.

Furthermore, major urban public transport systems have faced huge fare system changes in the past and have more than adequately coped. The most recent and large scale example is the Oyster Card system on London's public transport network, which has been successfully implemented and Oyster cards are now part of London life. Similarly, London's congestion charge has added a layer of complexity to driving to London, but has successfully altered driver behaviour. There is no reason why urban Bangladeshis cannot also become accustomed to altered habits and practices for using rickshaws with appropriate educational and institutional support.

6.2 – Potential Obstacle: Users will prefer to pay rickshaw pullers with cash, or pullers will demand

money

The nature of the system makes this potential shortcoming unlikely to materialise on a significant scale. Whilst it is possible that a rickshaw puller would take cash instead of tokens for short-term financial gain, the rickshaw puller is likely to prefer tokens – the scheme requires each puller to earn each week a requisite number of tokens, and accepting cash would mean tokens are not gained and the rickshaw puller will run the risk of missing his target, consequently threatening his job security.

The fare rate has been set (and will be regularly reviewed) to ensure that it reflects the market rates and does not cost users more. As the token payment method would not cost the user any more than a cash payment, and the puller has no rational incentive to accept cash, the benefit to the user is to adopt the new token system.

Lastly, there is such a volume of pullers that those that insist on using cash will soon find that users will only go to token-operating pullers as it is to the user's advantage, and hence they will be forced to adapt or fall out of the market.

6.3 – Potential Obstacle: Rickshaw pullers, paid on a time-based rate, will drive more slowly

This is possible so that rickshaw pullers can ensure a larger fare. However, as formal public servants, users will be able to report their licence number to the managing authority if they have a serious complaint, and disciplinary action can be taken. Users also have the right to get off and find a faster rickshaw at a low cost to themselves (as journeys are likely to take similar times). Given the relationship between a puller and his passenger, it would seem unlikely that a puller could drive unnecessarily slowly without facing protest from his passenger, and this should be sufficient disincentive to behave in such away.

6.4 – Potential Obstacle: Users cannot/will not see rickshaw pullers as public servants

The largest social change in the operating of the proposal is that informal workers found at the bottom of society will become formal workers employed as public servants. It will take some time to change the way in which rickshaw pullers are viewed, especially in Bangladesh, where views are conservative and social status and position is rigorously reinforced by daily practice

This can be overcome through public education at the outset of the project so that people are aware of the motives behind its implementation, and through the establishment of a strong managing authority which reflects – at an organisational and individual level – the values behind the proposal and is able to act to enforce these. However, we believe that if the institution is sufficiently empowered to protect and promote the dignity and status of rickshaw pullers, this potential obstacle can be surmounted.

6.5 – Potential Obstacle: Rickshaw garage owners will mount significant resistance to the changes

It is highly likely that were this proposal to be implemented, the rickshaw garage owners would protest vigorously. Rickshaw garage owners are organised into their own industrial organisation and have a reasonably powerful position in society. They also enjoy substantial incomes from the current operating system.

There are two methods of overcoming this obstacle that the proposal would use. Firstly, garage owners will be coerced into taking on a new formally employed role as the garage managers, mobilising their local knowledge and networks to help implement the project. Failing this, the second approach will be conflictual: the new management authority will be empowered to pursue garage owners through legal channels for infringements of licences, labour practices and illegal land occupation which they currently practice. The incentive of a formal position in the new system with compensation should be greater than the threat of legal proceedings and a loss of all assets and so most rickshaw garage owners would most likely accept the new realities, rather than resist.

6.6 – Potential Obstacle: Pullers and other stakeholders will demand that surplus is redistributed as wages, rather than development projects

One objective of this project is to raise the economic status of rickshaw pullers, but a wage increase is not the only way to do this: this proposal will ensure that economic status is uplifted through income security which allows financial planning and other activities.

Raising the wages would mean that the upgrading of infrastructure and the implementation of social development projects would not be possible, and this would be detrimental to the social development goals of the project. Experience in Bangladesh and other developing nations shows that injections of cash to the poor do not often lead to sustainable poverty alleviation, but simply heighten household expenditure on non-essential goods such as cigarettes, alcohol and radios (Forrester, 1998). Long-term social development comes from the education, HIV/AIDS and other programmes that can be implemented in the new garages, and by making these rickshaw garages a focal point for local communities, rickshaw pullers' social status will have space to increase.

Furthermore, the **proposal will only work if users do not see an increase in their cost for a rickshaw journey**. It is not possible to raise wages and have disbursement funds for development without raising the cost of travel. Hence, whilst it may be a popular criticism, we strongly feel that simply increasing wages is not feasible if all objectives are to be met.

Ch.7 – Conclusion

This proposal has two main aims: firstly, to target as many people as possible in a positive way, and secondly, to be innovative and original. By nationalising rickshaw transport in Bangladesh, this proposal would affect 15% of the total Bangladeshi population, around 22 million people. It draws on the urban experience of many other nations and their attempts to rationalise transport, but uniquely positions non motorised rickshaws as the mode of transport.

Rickshaws are the most common form of transport in Bangladesh – 57% of journeys are made by rickshaws – and they are a popular mode of cultural expression. They are crucial to the economy and to the social lives of Bangladeshis. Yet they exist in the informal economy, in which billions of dollars circulates without ever being harnessed for social investment.

This proposal's five main objectives are designed to have as wide an impact as is possible without causing disruption to this vital transport network. It will bring economic security to the rickshaw puller with the creation of a regular income stream; it will facilitate the raising of rickshaw pullers' social status by making them formal public workers with rights and responsibilities; it will generate substantial, sustainable capital for investment into upgrading rickshaw garage infrastructure, bringing health and other social benefits to rickshaw pullers; it will incorporate rickshaw pullers into society by making their garages centres of development activity and education; and it will improve the standard of public transport in Bangladesh's urban centres.

Crucially, the behaviour of users will have to change very little, and the economic cost to them of the change will be zero. Service users would simply find that what was once a private service is now a public one, and they would need to purchase tokens from local retailers, a viable and already tested system for other services. At the same time, the entire population of the country, all of whom use rickshaws on a

regular basis (with the exception of a tiny minority), will directly contribute to the alleviation of poverty, disadvantage and inequity amongst the people of Bangladesh.

This proposal benefits many different stakeholders: it costs the Government nothing but the initial loan to implement the project; foreign donors and NGOs will find that they have local infrastructure to easily target populations with their development programmes; users will find that using a rickshaw becomes easier as the debate over fares disappears; up to 32,000 jobs will be created to manage garages; and the rickshaw pullers themselves will have greater regularity of income, the potential for greater income, health benefits of better quality, sanitary housing, the ability to plan financially for their children's education, access to policy makers, the protection of the law as public workers, and the increase in their social status, their respect and their dignity.

This proposal has rather simple objectives, but we feel that these are more than accomplishable, and that this proposal, if implemented, would be sustainable in the long term. It would be a grand, dynamic and innovative approach to alleviating economic and social marginalisation of rickshaw pullers, and has the potential to be very successful.

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