

## สารานุกรม

### ข้อคิดของชาวต่างประเทศ

#### IS BANGKOK'S TRAFFIC PROBLEM INTRACTABLE ?

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##### Costs of Traffic Congestion

Bangkok's traffic, like the weather, is a favorite topic of conversation. A foreigner quickly learns the expression "rot tit mahk", as Bangkokians have had to put up with much inconvenience, frustrations, waste of time and energy when caught in traffic jams. While this is all too familiar to the Bangkok community, less is known about the real economic and social losses to its society. Have these been adequately quantified? Do we know the economic costs and environmental effects of Bangkok's traffic congestion? What have been the physical as well as mental impacts on people's well-being? Are there medical data to show how taxi drivers, bus conductors, traffic police, or street vendors fare, given widespread air and noise pollution? What about loss of labor productivity? How many employees do not show up for work on time? When they do arrive, do they feel up to tackling their tasks efficiently? How much on the job time is lost due to traffic delays, especially during heavy rains and floods? What has been the impact of paving over canals to acquire more street space there by making Bangkok more flood prone? What have been the social consequences of fathers' and mothers' inability to spend more time at home? What about students who must also waste hours on buses or in chauffeured cars? What are the lost benefits when we have not achieved an eight hour day or 5½ day workweek as long as we have to dissipate three or more hours each day in traffic? Is it logical to count fuel used for city driving as a plus in calculating the gross domestic product when traffic conditions contribute to a deteriorating quality of life?

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It would seem essential that the answers to these issues be known in order to be able to cope with traffic effectively. In addition there must also be articulate policies for urban development in general, and rational land use policies and planning controls in particular. It makes little sense, for example, to allow more and more high-rise buildings to be put up without knowing their impact on traffic and other urban services. The absence of adequate policies and controls, the lack of a systems approach to Bangkok's development problems—perhaps unattainable given the fragmentation of agencies in charge—clearly add to the City's high costs of moving vehicles.

### **Past Approach**

Until now the responsibility for traffic planning and control has been largely with the traffic police. This meant that various ad hoc measures were taken in response to worsening traffic conditions. While some of these have been more or less successful — without them conditions may be worse — their total consequences were rarely foreseen. The first major step taken was to pave over canals. Together with taking out trees when roads had to be widened, much of Bangkok's natural drainage was impaired; the result was increased flooding. In addition, when concrete surfaces replace water, average temperatures rise—as do driver's tempers. Non-motorized samlors were banned from Bangkok's streets, probably a sensible move; but, for example in Jakarta a similar ban was enacted except that samlors were allowed to continue operations along certain small sidestreets, and also to carry freight at night time after 11 p.m. This preserved a number of jobs and also filled the need for special transport, such as carrying produce from outlying areas to central markets.

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stood in the way, they had to go. Together with the flyovers this became part of an uglification program.

All along it became necessary to install more traffic police and traffic lights. The Rama IV and Silom intersection is now known as the 15 minute break. Toll expressways finally appeared, a good idea, but also very costly. They do not serve many of the main shopping, business and government centers. On-street parking had to be eliminated more and more, often hurting retailers. The latter were also badly affected by the most recent innovations, large-scale one way street routings. The net gain in alleged traffic relief is probably less than generally hoped for. Those with origins or destinations near or off Phetburi and Sukhumwit Roads, for example, are likely to be the chief gainers; but unless there is a net increase in street space commensurate with rising car registrations, total traffic may not be moving at increased average speeds. The lower end of Rama IV, Silom and Yawaraj areas are now suffering more than before.

To date, creating separate bus lanes and building overpasses excepted, only measures to accommodate automobiles have been taken. Non-drivers and pedestrians, the majority of Bangkok's citizenry has been ignored. It is time that the traffic problem is tackled within the context of total metropolitan development.

#### **Institutional Changes**

Meaningful comprehensive planning for Bangkok will not be easy. There is as yet no institutional apparatus that has enough legal authority, money, staff, or general mandate, to be able to do so. There will be substantial political obstacles to creating an agency capable of doing the job. The hope here is to put together enough facts demonstrating the consequences of continuing without needed changes, i. e. the current total burden on the Thai economy, and related declining quality of life. Any reform would need to be carefully worked out; there is obviously no single scenario. In principle, one may first set up a Metropolitan Policy Board to serve as a task force for the Bangkok Metropolitan Administration. It could formulate guidelines for land use, zoning, planning controls, urban services functions and financing in consultation with relevant authorities, agencies and private sector interests. In the case of traffic the MPB should be in a position to coordinate the operations of the Bangkok Metropolitan Transport Authority, Expressway and Transit Authority, Traffic Police and others and relate these to land use policies and other urban services requirements. Perhaps the MPB could serve the BMA in a similar way as the NESDB serves the national Government. Ultimately all transport and traffic matters need to be brought under a single administrative roof in order to integrate all services; but any proposed Metropolitan Transport Authority will need to be responsible to the MPB and the BMA. Hopefully something of this sort will be worked out, soon.

### **Financing Urban Transport**

There are several aspects of financing urban transport services which apparently are not well understood, as conflicting policy objectives are expressed in the Bangkok Metropolis. To make bus lines self-supporting, yet keeping a lid on bus fares is an example. In principle, subsidies for urban transport are entirely justified. There are three principal beneficiaries : (a) users who pay fares; (b) owners of offices, department stores, cinemas, etc. who enjoy convenient access by their patrons and who should pay adequate property taxes reflecting such access benefits; and (c) the urban economy in general which can function more efficiently with a proper transport network. The hard question is how benefits and costs are to be allocated among the different beneficiary groups. Arbitrariness cannot be wholly avoided and will be influenced by political thinking; but by identifying the various beneficiaries, it is possible to determine the extent of subsidies needed to maintain and expand the transport system, and whether to proceed, for example, with capital investments for rail rapid transit and other major improvements.

The reasons for prevailing financial losses of urban public transport need further clarification. Management inefficiencies are usually blamed; but they do not explain the inherent characteristics of bus or other transit operations. Few urban public transport organizations recover their costs from fares, especially when they have to compete with private cars. The main reason for this loss is people's work habits. Most employers and employees prefer to maintain 9-to-5 working hours. Even staggering these, while helpful, is often not enough for public transit to climb financially out of the red. Another important reason for losses is that during rush-hours passenger loads are available in one direction only. Lack of demand on weekends and holidays also adversely affects many transit companies. Accordingly many transit operators set their fares to recover operating and perhaps maintenance expenses only. When this does not succeed, deficits are made up from subsidies. Raising fares enough to discourage peak load riders is self-defeating when urban public transport is to be patronized enough to give some traffic relief and a low cost means for workers to reach their places of employment.

To illustrate how drastically urban transit can be affected by demand over time. Some years back the Long Island Railroad in the New York area was carrying roughly 240,000 passengers each weekday at a perennial financial loss. If it had been possible for this railroad to carry 10,000 passengers per hour per day--an idealized traffic flow--the line would have been able to dispose of 90% of its rolling stock, a substantial amount of trackage, signals, workshops and other equipment, as well as 85% of its labor force...while still carrying 240,000 passengers per day. Fares could have been reduced while achieving an operating profit.

To accommodate urban passenger traffic demands, carriers have to cope with peak traffic which means maintaining an investment large enough to reflect prevailing work-hour patterns. This is probably puzzling to most bus or subway riders; they see companies are losing money when each vehicle is stuffed with people, at least during rush hours. One of the few big city transit systems in the world which claims not to lose money is in Shanghai. Why? Full loads are carried virtually around the clock, weekends included, and, there is no competition from private cars.

There are other ways to strengthen the revenue base of transit operations. This applies especially to rail transit when it is possible to acquire a 500m right-of-way. The transit operator or authority can then develop offices, shopping centers, apartments, other traffic generating land uses. Rentals could then make the transport system financially self-sufficient. Cross subsidies in this case would be the same in principle as conventional subsidies. Unfortunately it is probably too late for most cities, including Bangkok to resort to such a comprehensive arrangement. But it reiterates the point that without good land use planning and control, i. e., piecemeal development of major transit and traffic arteries make these more costly than necessary.

Another way of increasing the revenue base of transit services is to combine all transport operations, including bus services, parking lots and garages, highway and bridge tolls, etc. This may have some applicability in Bangkok as the ETA is in charge of Expressway and Rapid Transit. Such consolidation of services could reduce, if not eliminate, the need for public subsidies.

### **Taxing Automobiles**

While there is much talk about privatizing the bus lines, eliminating subsidies, even if it means fare increases, little is said about allocating the costs for which private transport in Bangkok is responsible the large outlays on behalf of traffic flow improvements have already been noted. However, getting the private motorist to contribute a fair share toward the costs he imposes on the community will require measures which will not be popular. We can only hope the officials in charge will have the courage to take steps that prove economically and socially sound. This includes, for example, putting major restrictions on private car use in the City, partly to speed up bus service. At present buses ply their routes at speeds of 15kmph or less. If traffic could flow more smoothly—by limiting private cars—it would be possible to increase bus speeds to 30kmph. This means that bus capacity would double. To discourage private car use a road tax may be enacted which reflects more truly the costs which automobiles impose on the City of Bangkok, including all principal indirect costs related to traffic congestion, pollution, and others noted before. Current registration fees of B 800–2000 per year are

pitifully inadequate. They should probably be four times this amount. The government did suggest a higher road tax for diesel car owners, despite the fact that diesel fuel is less toxic than ordinary gasoline. Perhaps a two tier system could be introduced whereby current license plates would allow cars to drive anywhere outside of the present Inner Ringroad system. Anyone entering inside of the ringroad would be required to display an extra license plate or sticker for which B8,000-10,000 per year may be appropriate. If this does not deter sufficient private traffic, the entitlement to "city plates" may have to be rationed, with priority given to those who reside within the prescribed perimeter. If the government is keen to limit or eliminate subsidies for state enterprises, why let the private driver get away with paying only a fraction of his costs to the community?

Will the decision-makers concerned, who almost all drive their own cars, be willing to enact a vehicle restriction scheme? So far Singapore has been fairly successful with rush hour tolls collected at several inner city entry points. Hongkong has devised a sophisticated metering system where by car owners will be charged monthly for the use of certain streets by means of a special device that records license plate numbers. This scheme still needs to be evaluated as to its effectiveness. These measures indicate, however, the need for private car drivers to pay a higher share of their costs.

Imposing suggested restrictions will undoubtedly create some new problems, such as looking after school children. This means that more efforts may have to be made to encourage attendance at neighborhood schools. Good public transport, meanwhile, provides the best incentive to leave cars at home. Especially if any future rapid transit is to get a share of off-peak traffic to increase its earning capacity, car owners need to be encouraged to keep their cars in the garage or at suburban stations parking lots. In addition, any increases in road taxes needs to be tied to a general reform in taxation to meet mounting pressures on the BMA's ability to provide municipal services.

### **Ideas for the Future**

Apart from the need for institutional and fiscal reforms, there remain a number of options open to Bangkok's transport planners. This includes :

#### **a. Rapid Transit**

Bangkok is the last holdout among Southeast Asian capitals not to have a firm commitment to proceed with building a rapid rail transit system. Hongkong has already opened a new extension to its original network. Singapore is in the construction stage. Jarkata has firm plans for rapid transit services by using mostly railway trackage which traverses the city along several branches;

What about monorail? Unfortunately such technology has created an image much in excess of what it deserves. Monorails are found in amusement parks, fairs, the best known system having been built for the Tokyo Olympics in 1964. Monorails have not been used for rapid transit simply because their service is too slow (e.g., switching is very cumbersome), its capacity to move people is hardly greater than that of conventional buses or trams, while investments for the latter is lower.

Light rail transit systems cost about the same as monorails, but have about three times the carrying capacity. Light rail—such as commenced operations in Manila—costs less than rapid transit contemplated for Bangkok, but it can carry only half or less, up to 15,000 passengers per track/hour. Per passenger investment benefits and returns are larger for the heavier rail systems.

#### c. Bus Service

Proposed restrictions on private car use can be successful only if they are supplemented by a fully coordinated public transport system, including, for example more express bus services, both regular and air-conditioned. Interchange ticketing from one line to another is long overdue in Bangkok, not only among bus routes, but also with river transport, suburban railways, and eventually with rapid transit. Special bus turnout zones, and some further improvements at bus-stops to overcome chaotic conditions such as prevail at the Victory Monument are needed. Double-decker buses have been promised from time to time; they would increase seat numbers, but their prices have risen substantially with the rising values of U.K. pounds and D-Marks, as Britain and Germany are among the chief suppliers. There have been proposals to operate buses, presumably on shorter hauls, without any seats whatsoever; but should we dehumanize Bangkok's bus services even further?

#### d. Other Services

Minibuses, Samlors, took-tooks, indeed the entire informal transport fleet requires encouragement to allow it to thrive instead of being subjected periodically to harassment, as it plays a vital role in the movement of passengers and goods. Their owners and drivers perhaps should be subject to more stringent safety and pollution standard rules. Police would be well advised to enact programs for driver education rather than chasing operators off the road.

Meanwhile, it is also high time that Bangkok's traffic planners do more for her pedestrians. Overpasses are a good start; but what about setting

aside malls prohibiting vehicular traffic except for delivery vans only at specified hours, e.d, 5 to 7 in the morning? Better maintenance of side-walks, more safety zones, are other examples to help the neglected pedestrian in Bangkok.

#### **e. Operations and Management**

In order to attain least costs in the operations and management of a fully integrated metropolitan transport system, the private sector can be given an important role by combining the inherent advantages of government financing capabilities along with those associated with private management efficiencies. The responsibilities for infrastructures, streets, bridges, related appurtenances, terminals, railways, etc. would remain with a public agency. Operations and maintenance can be contracted out to private companies, supported in part from public revenues to the extent justified by relevant studies. The latter would show the incidence of costs incurred and benefits accrued by the various identified user classes and other beneficiaries. Such studies would further indicate the basis for future policy guidelines to determine the financial package necessary for the implementation of a rational transport operating system and the respective roles of the public and private sectors. A formidable task, but one urgently needed to replace the current ad hoc methods of coping with traffic congestion.

#### **Some Long-Term Aspects**

Shaping the future development of Bangkok's metropolitan area is subject to many uncertainties, especially as there is no firm guidance which could make anticipated land uses more predictable. This adds to the difficulties for transport planners to come up with optimum solutions. Thus the prevailing position that Bangkok cannot afford rapid transit still needs to be proven. Opponents to investing in such a system, however, may have a point. For example, if satellite towns with neighborhood employment and schools, rejuvenation of shophouses, etc. are successful, then urban travel demands could decline especially during rush hours.

A potentially significant development is reflected in the advances of communications technology. Closed circuit television is already making its mark. It will enable more and more employees to do their work at home; meetings can take place without physical presence; much school instruction can be so conducted; and doctors can check on patients by telecommunication. Technology moves rapidly; a B 16 billion or more investment in transit is designed to last 30 to 50 years. Perhaps new communications habits will not overtake Bangkok any time soon. Yet it is pertinent to ask : could such a vast sum be better spent on leapfrogging into the 21st century when our present forms of urban travel may have become obsolete?



## Conclusions

For the moment, however, all options must be kept open. In order to exercise any one of these it is necessary to follow the maxim that one should aim to move people not just cars. This has not been sufficiently heeded in Bangkok. The continuing love affair with the private car has promoted traffic jungle conditions. Courtesy, once the hallmark of Thai behavior has gone out the window on Bangkok's streets. Supposedly public officials are concerned about safety, yet to date the evidence is otherwise. The absence of seat belts, helmets for motorcyclists, or the presence of tinted glass are far more life threatening than the youngsters who sell you garlands or newspapers at intersections. The practice of bus and truck drivers to run from the scene of accidents attests to Thailand's immaturity when dealing with traffic. It is high time to enact compulsory liability insurance to cover drivers and others in case of accidents. Steps to ease traffic congestion, are needed. The first order of business now is to find out the actual costs of accomodating automobiles in Bangkok, including the environmental consequences and those associated with poor planning, management and absence of comprehensive policies. Once quantified, it will be possible to suggest the type of organization, such as a Metropolitan Policy Board, to guide Bangkok's future growth and service needs. The indicated studies would shed light on urban finances, specifically the amount of subsidies for transport which could be justified, and the allocation of benefits and costs to transport users, property owners, and the general urban economy. Studies can demonstrate what road taxes for different classes of vehicles are commensurate with the costs they incur when using city streets. They will further confirm, inter alia, what contribution a transit syetem might make toward the welfare of Bangkok's citizenry, and the size of the invest ment that can be rationalized. If such a scheme results in a net saving fo community, then any argument as to why such large amounts of resources should be chanelled to the metropolis when much poverty in rural areas needs to be looked after, could be laid to rest. If a net saving is possible for Bangkok's economy, then it would be a saving for the entire Nation as well. More funding would be available to take care of regional needs throughout Thailand.

It is to be sincerely hoped that Bangkok's travelling public, while unlikely ever to be spared crowding, will at least be able, in the not too distant future, to move about with "reasonable dispatch", a common law term applied to for-hire carriers, "reasonable" to mean, let us say, 25 or 30km per hour, door to door. But the necessary step must be taken very soon, if Bangkok's traffic problem is not to become indeed intractible.

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