NATIONAL TRANSPORT RESEARCH CENTRE

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PILOT URBAN BUS PROJECT

(A PRELIMINARY EVALUATION REPORT)

NTRC-104

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I. INTRODUCTION

The problem of urban transportation is going from bad to worse day by day. Almost all the major cities, specially in the developing world including Pakistan are unable to cope with the ever-increasing transportation demand. The increase in urban transportation demand to a large extent is attributable to the huge population growth due to rapid urbanization trend which is invariably accompanied by an expansion of city boundaries, a higher level of industrial and commercial activity and this further places new and heavy demands on the already inadequate transport system. In the absence of a proper policy framework, lack of public finances and inadequate incentives to attract private sector investment it becomes a perennial problem.

In Pakistan transport in general and urban transport in particular is in a very sorry state-of-affair. The dissatisfaction of public has reached its lowest ebb as is manifest in a number of ways. The national newspapers are full of complaints against the level of transport service and leaders of public opinion take every opportunity to voice their concern. Incidences of public taking the matters in their own hand as a last resort and symbolic of total desperation are on the increase.

The critical impediments in the way of developing a viable system of urban transportation both in the Public and Private Sectors are as follows :-

(1) Public and Private Sectors :

(i) Absence of clear-cut policy on the part of the government regarding the role of public and private sectors.

(ii) Over-regulation of transport fares both in public and private sectors.

(iii) Improper administration of students concession

(2) Public Sector :

(i) Lack of quality manpower for management and operations.

(ii) Lack of adequate finances for public sector.

(3) Private Sector :

(i) Over-regulated fares and hence non-profitability if operated within the confines of law (i.e. without over-loading, etc.)

(ii) Lack of credit facilities for the private sector.

It may be seen from the above that the three main issues which are at the heart of the urban transportation problem are (1) Lack of Clear-Cut Government Policy; (2) Non-Profitability; and (3) Over-regulation of transport fares. These have been discussed briefly below to delineate the various dimensions involved.

(1) Lack of Clear-Cut Government Policy : Urban transportation policy has been shifting from one extreme position to another. There has not evolved a clear-cut understanding of the role of private sector and the responsibility of the Government in providing urban transport. Not only the question of private and public share remains undecided, the responsibility for public sector has also been tossed between federal and provincial governments with occassional suggestion that it is really the responsibility of the local municipal corporations. Also, there have been repeated suggestions that the public sector corporations must be run on strict commercial lines and lower modes of transport i.e. rickshaw, mini-buses, etc. must be eliminated.

Three options are available to organize the road transport set-up in the country as described below :-

(i) Total Privatization : The entire road transportation system in the country may be handed over to private sector while Government act as a regulatory agency in terms of quality standards and safety only. It is argued that such a system

of free market forces would create a self-supporting transport system without any external financial support and competition would ensure efficiency and the supply position would be in commensuration with the demand pattern. There are, however, valid argument against it, especially where it involves indigent section of the society who would be totally deprived of the public transport facility specially in the urban context. Since private operators have an interest in operating only the most profitable routes, the transport services would be un-evenly distributed and completely lacking in many areas. Also, even if this alternative may seem to provide an opportunity to avoid government involvement and hence a possibility to save governmental funds in the short run, there is insufficient basis to believe that the presently disorganized and internally competing private sector would provide the optimal solution in the most cost effective manner. Therefore, for many valid socio-economic reasons, it would not be desirable to entrust the total responsibility for the road transport to private sector specially the urban transport sector.

(ii) Total Nationalization : This approach would mean that the government would be the sole supplier of road transport for both urban and intercity operations. This would range from rail rapid transit to buses

and all para-transit including mini-buses, pick-ups, vans, taxis, rickshaws, etc. The system is in vogue in communist block countries but would not be an appropriate solution because of the following socio-economic reasons :-

(a) Public funds for investment in the development and maintenance of an entire road transport system are very limited;

(b) The rapid growth of population and travel demand specially in sprawling urban areas of the major cities makes even the basic provision of transport facilities to be highly capital intensive; and

(c) Unavailability of adequately trained manpower and other physical constraint which impose serious limitations on the part of the public sector agencies to develop the infrastructure and to absorb the funds even if they were somehow made available.

(iii) The Mixed Approach : This approach is primarily based on utilizing the combined resources from both the private and public sectors to provide an efficient road transport system. This is commonly practiced in most European cities and many other parts of the world where public transport is regarded as a social service comparable to health care and education. The national and local governments provide the necessary

funds and specially the urban transport services are duly subsidized. In such cases, the public transport services are in the form of buses and rail rapid transit within the municipal limit. The remaining transport such as taxis and some other specialized modes of transport are totally left to the private sector.

Obviously the 'mixed approach' is the desirable option. However, the precise role of the public and private sector need to be clearly defined because the mixed approach can work effectively and efficiently only if the operations are well coordinated between the two sectors which is possible through proper planning and efficient regulation.

(2) Non-Profitability : The second major problem is the non-profitability in urban transport operations.

There is hardly any urban bus transport system, even in the most developed countries of the world (who run their urban transport operation with fullest autonomy and maximum efficiency), which is running on commercial lines. The revenues, due to fare structure seldom exceed 40-60 percent of the total operating costs, as brought out in Table-1.1. The reasons for not meeting the operating costs from fare box are as follows :-

(i) The urban transport is used by the lowest income segment of the society, who are not in a position to pay the full cost of the services. As such raising the fares even to break-even level, is not socially desirable;

TABLE : 1.1 Bus Service : Revenue from 'Fare Box' (1983)

S. No.	City	Ownership	Number of Buses	Operating Revenue[1]/ Total Cost[2]
1.	2.	3.	4.	5.
1.	Accra	Public	44	0.51
2.	Addis Ababa	Public	164	0.67
3.	Ankara	Public	899	0.48
4.	Bombay	Public	2,325	0.77
5.	Cairo	Public	2,454	0.50
6.	Calcutta	Public	981	0.45
7.	Sao Paulo	Public	2,631	0.41
8.	Athens	Public	1,768	0.34
9.	Berlin	Public	1,505	0.51
10.	Chicago	Public	2,275	0.52
11.	London	Public	4,901	0.48
12.	Paris	Public	4,005	0.37
13.	Sendai	Public	777	0.96
14.	Karachi	Public	646	0.43
15.	Lahore [3]	Public	328	0.55
16.	Rawalpindi/Islamabad	Public	161	0.53

Note : 1 Operating revenue includes fare box and advertising revenue

2 Total cost includes operating cost, depreciation and interest charges.

Source : Urban Transport - A World Bank Policy Study. The World Bank, Washington, D.C. USA, April, 1986.

3 PRTC

(ii) The urban mass transport facility are generally used by low-income groups of organized labour which makes raising fares in step with cost increases politically very difficult; and

(iii) The Government as part of its social responsibility have to provide transport to serve areas not justified on the basis of traffic.

(3) Over-Regulation of Transport Fares : The third most important factor is the over-regulation of transport fare by the Government, which amounts to virtual strangulation of the industry. The fare increases have been mostly adhoc, insufficient and too late. Inadequacies of the fare can be judged from the fact that the cost of tyres, tubes, POL, chassis and labour has gone up from 1000-1800% since 1950 where as the fare increases are only a fraction of this. The current fares for various bus urban transport are generally 15-50% lower than what would be a reasonable level. It has thus become impossible for any private operator to even recover the cost by operating within the confine of the law i.e. no overloading and no over-charging, etc.

The problem is further aggravated by the fact that the private sector provides almost 90% of urban transport capacity. Since private sector are there for financial consideration, they rightly feel no moral and social obligation to carry traffic at a loss. This has been a constant source of irritation and antagonism in the past and need to be resolved.

There are clear indications which point toward a very serious situation developing :-

(i) The rate of induction of new buses has gone down considerably, while number of smaller vehicles has been very high in recent years.

(ii) No recognized high class entrepreneur is willing to invest in urban road transport due to very un-attractive return. As a result, the ownership has gone into the hands of middle and lower middle level group (often multi-ownership or self-operated).

(iii) The turn-over of ownership in public transport is very high. Instances abound where the investor(s) who entered the field for social reasons because public transport is still considered a status symbol, often with hard earned saving, quickly found out that it was no longer an attractive proposition and got out, suffering considerable financial loss in the process.

From the preceding it is obvious that the problem is of a multi-dimensional nature. However, if the situation is allowed to continue, it would attain un-manageable proportion and may even result in very serious political as well as economic repurcussions.

ROLE OF NTRC

With a view to check steady deterioration in road transportation in the country, National Transport Research

Centre, since late seventies, has been advocating liberalization of road transport to the maximum possible extent on the plea that : (a) the responsibility of a social welfare state is limited to providing transport for the most indigent strata of the society and has no obligation to provide subsidized travel for the affluent segments of the society who demand quality service and can afford it; and (b) the over-regulation of private sector road transport which was meeting bulk of transportation needs (90% in urban areas and 95% on intercity routes) was seriously inhibiting the development of the industry on sound footings which was neither in the interest of the travelling public nor the country.

NTRC suggested that as regards the conceptual framework the road transport should be divided into two category namely; (a) most basic form of bus transport; and (b) modes other than basic bus service. The government responsibility should be limited to providing basic bus service for which the fares should be fixed at a level which can be afforded by the public. All forms of transport other than the basic bus should be de-regulated completely and handed over to the private sector and let the market economics determine the equilibrium between the quality of services and the fare. The regulatory function of the government in respect of private sector road transport should be limited to safety of operations only. This on one hand would remove the perpetual adversary situation between the government

and the private sector road transport operators, which in the past has resulted in many ugly incidences and on the other hand would help develop the industry on sound footing and provide quality service for those who can afford. However, the idea was too radical for the policy makers at the time.

The view point finally found favour with the Working Group on Urban Transport constituted in 1982 for the Sixth Five Year Plan, but unfortunately the recommendations of the Working Group did not find a place in the final document of Sixth Five Year Plan. NTRC, however continued its efforts and recognizing that the road transportation, particularly in urban area, being a very sensitive issue, the decision makers must be provided with incontrovertible proof that the measure of deregulating fares for quality service would not have any undesirable repurcussion and finally succeeded in securing the Concept Clearance of the then Deputy Chairman, Planning Commission in March, 1985 to allow the Centre to operate a high quality service on a Pilot scale basis over one of the main Routes between Rawalpindi (Railway Station) and the Islamabad Secretariat with a view to :-

(a) Study the potential for the Quality Service which would essentially be an 'intermediate' mode of transport between the basic bus and a taxi service;

(b) Public reaction to increased fares for quality service;

(c) Patronage;

(d) Level of service quality afforded by the private sector.

Work pertaining to the preparation and approval of the scheme, concurrence of the various agencies involved and the lining up of a private operator (who would meet the entire capital and operational expenses) was taken up accordingly and the Pilot Project was successfully launched in June, 1987 as per details given in Chapter-II of the Report. Chapter-III carries out a preliminary evaluation of the project based on the experience of operation for the first five months of the Project while Chapter-IV presents the conclusions.

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II. THE PILOT URBAN BUS PROJECT

As mentioned earlier, the basic objective of the Pilot Urban Bus Project is to study the effects of de-regulated fares on the patronage and quality of service afforded by the private sector. Since the greatest cause of user's dis-satisfaction with the existing service is on account of over-loading, over-charging, safety, non-adherence to a Time Table and rude behaviour of the drivers and conductors, the quality service has been defined in terms of the following parameters :-

(1) Assured seat for every passenger

(2) Strict adherence to a laid down Time Table

(3) No overloading

(4) No overcharging

(5) Stoppages at designated points only

(6) No undue waiting at the bus stops both during the peak and off-peak periods

(7) No indulging in racing with other vehicles

(8) Most polite service

Following the approval of the scheme in November, 1985 preparatory work was undertaken which among other matters required the concurrence of :-

(1) The Provincial Transport Authority, Punjab since the Pilot Project was to operate within their jurisdiction.

(2) The Administrator, Federal Capital Territory Islamabad

(3) Rawalpindi Municipal Corporation, Cantonement Board Rawalpindi, the Pakistan Railways and CDA for fixing the Bus Stops Signs in their respective jurisdiction along the route.

Besides through a country wide advertisement efforts had to made to line up the private operator for the project. It may be pointed out that the first entrepreneur who was a professional transporter backed out and thus a second investor had to be lined up again through the country wide advertisement, which resulted in a wastage of about 9 months.

Accordingly the Agreement was signed with the entrepreneur (Operator) on 14th January, 1987 for operating ten 26-seater Mazda Coaches for the Pilot Project for one year (details at Annex-I). However against the anticipated mobilization time of 3 months, it took 5 months for lining up the finances/investors, chassis acquisition and body building. The route between Rawalpindi (Railway Station) and Islamabad Secretariat has been selected for the pilot project due to the reasons that it offers a unique opportunity to test the real patronage for the quality service at a premium fare as it offers a wide range of travel options and is being used by almost all income strata. Also for

similar reasons, the regular Bus Stops have been offset from the wagon/PRTC bus stops, etc. so that the patronage for this service under un-biased conditions may be assessed. The service has been inaugurated on 11th June, 1987 with the following salient features :-

(1) Route Alignment : Railway Station-PIA Office (Mall Road) - Flashman's Hotel (Mall Road) - Secretariat No. II - Mareer Chowk - Liaqat Bagh - Committee Chowk - Rawalpindi General Hospital-6th Road - Faizabad - Zeropoint - C.D.A. - Aabpara - Islamabad Hotel - Poly Clinic - Super Market - Secretariat.

(2) Route Length : The entire length of the route is about 23 Kilometers.

(3) No. of Coaches : The service has been operated with 10 25-seater Mazda Coaches.

(4) Hours of Operations : The hours of operation were initially fixed between 05:20 and 23:30 hours in accordance with a Time Table.

(5) Service Frequency : The frequency of service was fixed to be 10 minutes during working days and 15 minutes on closed holidays.

(6) Journey Time : The total journey time is 50 minutes including a terminal time of 2 minutes.

(7) Bus Stops : 17 Bus Stops were installed all along the route for the passengers to embark and disembark.

(8) Enroute Halting Time : The maximum halting time at the bus-stops has been fixed to be 30 seconds.

(9) Assured Seat : Every passenger has to be provided with a seat with no overloading or overcharging even at peak hours.

(10) Fare Structure : Maximum fare has been fixed as Rs. 4.00 with the minimum fare as Rupees one in four stages. Fare Table may be seen in Annex-II.

(11) Monthly Pass : Monthly passes at reduced rates of Rs. 150 for unlimited travel have been made available.

(12) Uniforms : Drivers and conductors have been provided with proper uniforms and badges.

(13) Driver/Conductor Training : Drivers/Conductors were properly trained at the Driver Training School of Ministry of Communications before their deployment on the job.

(14) No. of Seats : 25 seats (including driver)were provided as against 26 normally allowed in such vehicles.

(15) Route Diagram/Time Table Board : At each of the Regular Bus Stops a detailed route diagram and Time Schedule for the arrival of coaches at that stops has been indicated for the convenience of the passengers.

(16) Low Floor Height from the ground : Height of step reduced from 21" to 17" for easy embarkation and dis-embarkation.

(17) Circulation Space : The lay out of seats has been modified to ensure easy circulation within the bus. The aisle is 22" as compared to 12" normally provided.

(18) Logo : A unique logo was designed and registered for the service.

Air conditioned service would have been preferred but this has not been found feasible for the pilot project due to the reasons that :-

(1) the signals from the intending users were somewhat conflicting; and

(2) very short time intervals between the successive stops and frequent opening of the door in the ambient temperature of 120°F during summer could make the air-conditioning in-effective.

CAPITAL COST, OPERATION AND MAINTENANCE

As per the Agreement, the capital cost of ten Mazda Coaches, amounting to about Rs. 3.0 million has been arranged by the Operator in collaboration with another investor and both of them have 5 coaches each in the project. The Operator is however responsible for the overall operation and maintenance and charges an 'operational fee' from the other investor equivalent to 20-percent of the net profit for the operation of these coaches, if the net profit is less than Rs.10,000/- per month per coach and at the rate of 25 percent if the net profit is more than Rs. 10,000/- per month per coach.

NTRC has met the expenditure on the design,fabrication and installation of 'Bus Stop Signs' all along the route (Rs. 60,000), initial publicity campaign (Rs. 59,000) and has provided office space and limited terminal facilities to the Operator. A total amount of Rs. 270,000/- has been ear-marked for this project by the NTRC.

III. A PRELIMINARY EVALUATION

The Pilot Urban Bus Project has been in operation for over the last about five months. This Chapter carries out a preliminary evaluation of the project based on the experience during the preparatory phase of the project, the additions/alterations required after the inauguration of the project, the perceived quality of service and the operational and financial performance for the first five months of its operation (upto mid November, 1987).

(1) The Study Area : The study area comprises an estimated total urban population of 1.38 million spread over some 160 square kilometers of built up area in two contiguous settlements.

The Federal Capital, Islamabad built along the lines of grid like master plan of the late 1950's has a resident population of less than one third of its neighbour Rawalpindi. It is administered by the Federal Government through an Administrator whereas the development and other civic functions are performed by the Capital Development Authority. Rawalpindi is the largest city in the northern part of the Province of the Punjab and has a more complex pattern of local government comprising a Municipal Corporation, and a Cantonment area which today have large civil populations and various important business districts. The urban public transport system is provided in part by the Punjab Road Transport Corporation.

but mainly by the private sector, operating a wide range of vehicles including buses, mini-buses, Ford Transit vans, Suzuki Pick-ups, as well as the taxis and rickshaws as per break down in Table 3.1. Excluding Taxis and Rickshaws, a total number of about 1,300 other public service vehicles are operating in Rawalpindi and Islamabad.

As regards the route under consideration from Rawalpindi Station to Islamabad Secretariat along the Murree Road, all modes of public transport are available along the various sections of the route as may be seen from Fig. 3.1. The number of various types of Public Service Vehicles vary from 152 to 813 with the corresponding number of seats from 2,858 to 17,786 between the sections Islamabad Secretariat to PTV (0.32 Kms) and Chandni Chowk to Asghar Mall (1.28 Kms) as per details given in Table 3.2. Thus the share of Pilot Project Buses on the basis of seats, varies from about 1.5 percent to about 9 percent respectively. However on the basis of the terminal points (Railway Station to Islamabad Secretariat), the entire route is being served by the ten Urban Bus Pilot Project Mazda Coaches only. As regards the coverage on the basis of the length of route, the mini-bus (number 260) provide the service on the portion from the Railway Station to Super Market, while the Wagons (number 307) cover the portion from Saddar to the Islamabad Secretariat. Therefore, in terms of the total route length of about 23 Kilometers, the mini-buses cover

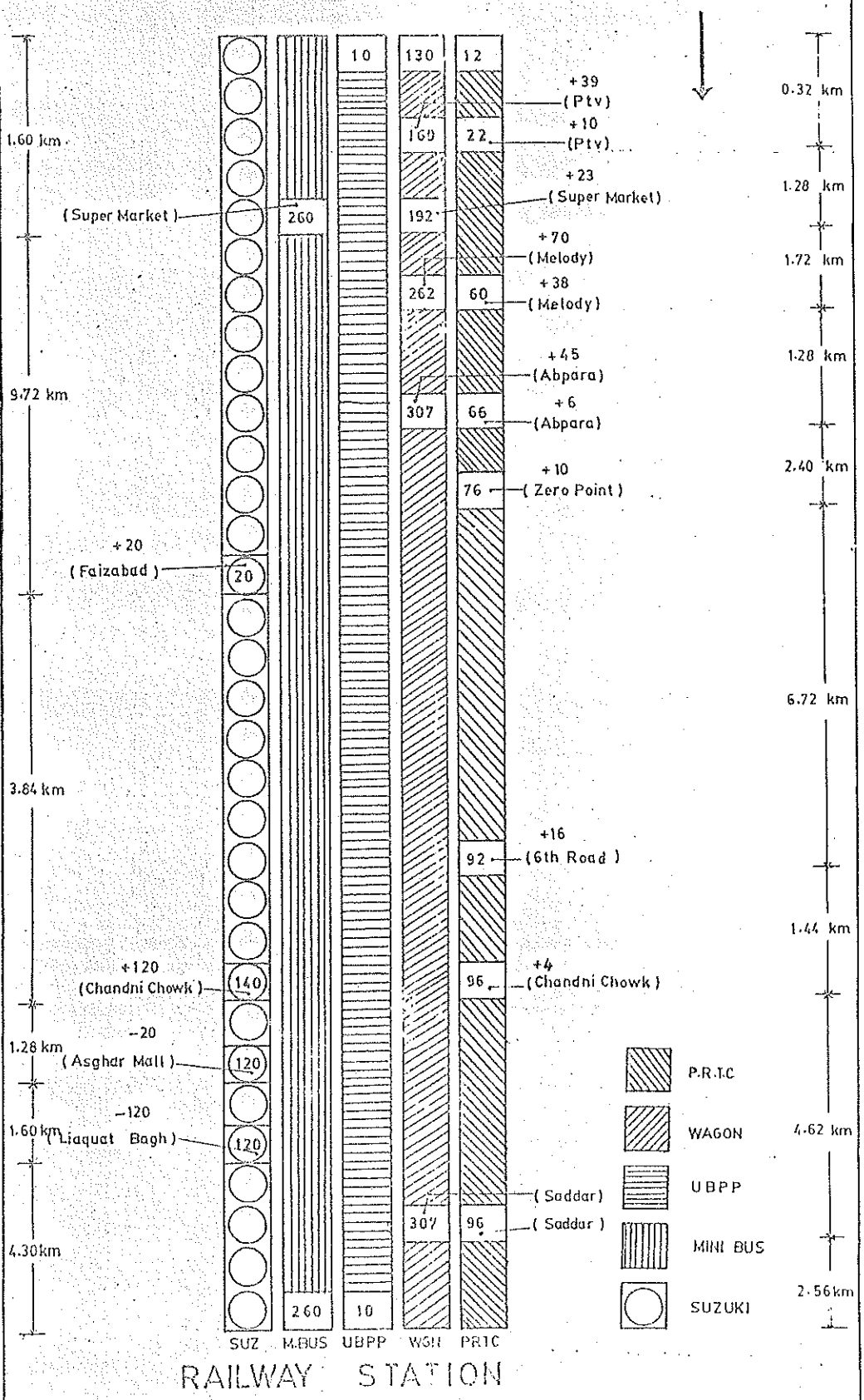
TABLE - 3.1 PUBLIC SERVICE VEHICLES IN RAWALPINDI/ISLAMABAD

S. NO.	Mode	ROUTES (NO.)				VEHICLES (NO.)				Seating Capacity including Driver
		Rawalpindi	Islamabad	Twin City	Total	Rawalpindi	Islamabad	Twin City	Total	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	WAGON	-	1	6	7	-	70	237	307	16
2.	SUZUKI	9	-	4	13	526	-	98	624	8
3.	MINI BUS	-	-	1	1	-	-	260	260	28 or 29
4.	TAXI	On All Roads	On All Roads	On All Roads	-	-	-	5,827	5,827	5
5.	RICKSHAW	On All Roads	-	-	-	415	-	-	415	3
6.	PRTC BUS	1	1	10	12	2	4	96	102	44 Sitting 20 Standing
7.	NTRC Pilot Project	-	-	1	1	-	-	10	10	25
	Total :-								7,545	

Sources : RTA Rawalpindi/RTA Islamabad

ETO Islamabad/PRTC Islamabad

VARIOUS PUBLIC TRANSPORT MODES OPERATING ON THE ROUTE



PILOT URBAN BUS PROJECT

TABLE : 3.2 VARIOUS PUBLIC TRANSPORT MODES OPERATING ON VARIOUS SECTIONS OF THE URBAN BUS PILOT PROJECT ROUTE

S. No.	N a m e	Distance Length (Km)	Suzuki		Mini Bus		Urban Bus Project		Wagon		PRTC		Total	
			No. of Vehicle	No. of Seats	No. of Vehicle	No. of Seats	No. of Vehicle	No. of Seats	No. of Vehicle	No. of Seats	No. of Vehicle	No. of Seats	No. of Vehicle	No. of Seats
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1.	Pak.Sectt. to P.T.V.	.32	-	-	-	-	10	250	130	2,080	12	528	152	2,858
2.	PTV to Super Market	1.28	-	-	-	-	10	250	169	2,704	22	968	201	3,922
3.	Super Market to Melody	1.72	-	-	260	7,280	10	250	192	3,072	22	968	484	11,570
4.	Melody to Aabpara	1.28	-	-	260	7,280	10	250	262	4,192	60	2,640	592	14,362
5.	Aabpara to Zeropoint	2.40	-	-	260	7,280	10	250	307	4,912	66	2,904	643	15,346
6.	Zeropoint to Faizabad	4.64	-	-	260	7,280	10	250	307	4,912	76	3,344	653	15,786
7.	Faizabad to 6th Road	2.40	20	160	260	7,280	10	250	307	4,912	76	3,344	673	15,946
8.	6th Road to Chandni Chowk	1.44	20	160	260	7,280	10	250	307	4,912	92	4,048	689	16,650
9.	Chandni Chk.to Asghar Mall	1.28	140	1,120	260	7,280	10	250	307	4,912	96	4,224	813	17,786
10.	Asghar Mall to Liaqat Bagh	1.60	120	960	260	7,280	10	250	307	4,912	96	4,224	793	17,626
11.	Liquat Bagh to Saddar	1.82	-	-	260	7,280	10	250	307	4,912	96	4,224	673	16,666
12.	Saddar to Railway Station	2.56	-	-	260	7,280	10	250	-	-	-	-	270	7,530

about 22 Kms (or 95%), and the wagons cover about 21 Kms (or 90 percent) of the route under consideration.

(2) Additions/Alterations : Soon after the launching of the project, the major additions/ alterations that were necessitated included the following :-

(i) Time Table : It was realized that with the given number of coaches, the route and the given manpower it would not be possible to operate the service at a uniform interval of ten minutes throughout the day from 05:30 to 23:30 hours involving 10 round trips per coach on all the working days (Sunday to Thursday). The Time Table was therefore rationalized and gradually adjusted to a total number of 7 round trips per coach per working day. Similar adjustments had to be made in the Friday/Saturday schedules such that the demand is adequately met by operating five and seven coaches respectively on these days with a total number of 6 and 7 round trips per coach, besides providing for adequate time to meet the maintenance and servicing requirements. Care has however been observed that the maximum interval of ten minutes is maintained specially during the peak periods on the working days. The summarized Time Table indicating the arrival time at both the terminals and presently in vogue may be seen in Annex-III.

(ii) Terminal Facilities : Temporary Office and arrangements for night time parking/ washing of coaches was originally made at the Railway Station Terminal. However, the terminal had to be shifted to NTRC in the first week of July because :-

(a) Proper facilities for office (Electricity, Telephone, etc.) were not available.

(b) Scarcity of water and un-suitable arrangement for cleaning and washing of coaches.

(c) Proper arrangement for night time stay of the Managerial and Operational staff could not be made.

(d) Security reasons.

The office and limited terminal facilities have been provided in the NTRC premises for the Pilot Project. However being away from the route it does involve a penalty in terms of introducing 'dead kilometrage' with a weekly total of about 830 kms for all the coaches.

(iii) Request Stops : Originally 17 Regular Stops were provided along the entire route. However on account of public demand and to reduce the walking distances, 10 Request Stops have now been added on the route. This has reduced the overall average distance between the stops from about 1.438 Kms to about 0.88 Kms. with no change in the maximum

distance of 4.6 Kms between Faizabad and Zeropoint but further reducing the previous minimum distance from 0.64 Kms to 0.32 Kms. The overall journey time of 50 minutes has also not been adversely affected. For details regarding journey time and in-between Stop distances please see Annex-IV.

(iv) Ticketing System : The fare is charged in 4 stages at the rate of one rupee per stage so that the minimum fare is Rupee one and the maximum fare is Rupees four. Tickets for respective denominations are issued to all the passengers making use of the service. Although each ticket carries a number which is issued from a booklet carrying a unique number, there are chances of mis-using the issued ticket as it does not carry a unique number and even poses problems in properly checking the tickets issued. A temporary expedient required that the date be written on the ticket before it is issued. However this becomes difficult during the 'peak hours' and the omission is now being rectified in the subsequent batches where each ticket has been assigned a unique number.

(v) Drivers/Conductors : So far for operating 10 coaches, 25 drivers and 20 conductors have been recruited on various occassions for the active strength of 11 drivers and 10 conductors. Thus 14 drivers and 10 conductors have been relieved from their jobs. The serving period of the relieved

drivers and conductors has varied from 7 to 136 days and from 8 to 125 days with the overall average being 51 and 47 days respectively.

The serving period of the drivers and conductors presently employed varies from 24 to 166 days and 12 to 166 days with the overall average being 104 and 89 days respectively.

(vi) Supervisory/Supporting Staff : Except for the Project Supervisor and a Washerman all the other Supervisory/Supporting Staff like Inspector,Time Keeper, Cash Clerk, Mechanic, etc. have been relieved. This is mainly on account of the reason that it is difficult to get good trained manpower at the remuneration levels which can be afforded by the Operator. After the initial start-up operations, the work load has peaked off. The nucleus staff has resulted in reducing the 'over-head expenditure', but the whole issue needs to be seen in a wider context which should aim at improving the service quality and minimize revenue leakage in a cost effective manner. The serving period of the Supervisory/Supporting Staff, who have now left varied from 9 to 118 days with the overall average being 55 days.

(3) Scheduled versus operated round trips : The comparison of scheduled versus actual round trips indicates that percentage compliance has varied from 70 to 98.1 percent with the overall average being 92.5 percent as described in

Table 3.3. The minimum compliance in June is mainly on account of a some-what un-realistic 'Time-Table' for the given number of coaches and manpower resources.

(4) Load Factor : The load factor not only varies from point to point but is also dependent on the hour of the day and day of the week. The overall load factor has however been estimated to be about 52 percent. This matches fairly closely with the ratio of actual revenue to the maximum revenue based on operated trips as detailed in Annex-V. It may be of interest to note that due to varying trip lengths, the 24-seater coach is used by as many as 41 passengers during a single trip journey.

(5) Passenger Volumes : Based on the sale of tickets, the number of passengers per coach per day comes to about 239 which is satisfactory.

(6) Trip Length : Based on the sale of tickets the maximum trip length distribution is estimated as follows :-

Upto 8.64 Kms	21.7
8.65 – ~~Upto~~ 11.09 Kms	35.0
11.10 – ~~Upto~~ 19.86 Kms	30.4
19.87 – ~~Upto~~ 23.12 Kms	12.9
	100

(7) Fare Structure : The overall comparative position of the Fare charged per kilometer for the Pilot Project vis-a-vis other public service vehicles is as follows :-

TABLE 3.3 - SCHEDULED VERSUS OPERATED ROUND TRIPS

(No.)

S. No.	Month	Round Trips		Percent Compliance	Remarks
		Scheduled	Operated		
1.	2.	3.	4.	5.	6.
1.	June	1,420	994	70.0	Time Schedule un-realistic
2.	July	1,848	1,812	98.1	
3.	August	1,765	1,665	94.3	
4.	September	1,776	1,707	96.1	
5.	October	1,865	1,804	96.7	
6.	November	729	713	97.8	
	Total (14th June-13th Nov.)	9,403	8,695	92.5	

(Rs.)

	Wagon/Mini Bus	PRTC	Urban Bus Project
1. Minimum			
Total	0.65	1.00	1.00
Per Km	0.325	0.143	0.200
2. Maximum			
Total	2.50	2.50	4.00
Per Km	0.100	0.100	0.173

For breakdown please see Annex-VI.

(8) Average Daily Distance travelled per Coach : The overall average distance travelled per coach per day comes out to about 267 Kms which shows that these are being adequately utilized.

(9) Fuel Consumption : The Kms. operated per litre of diesel vary from 4.70 to 5.66 during the period under review with the overall average being 5 Kms, which is fairly good.

(10) Staff Ratio per Coach : The staff ratio per coach comes out to be as under :-

Overall	:	2.2
Supervisor	:	0.1
Driver	:	1.1
Conductor	:	1.0
Washer	:	0.1

which indicates that the staff has been kept to the barest minimum.

(11) Accidents : So far only one injury accident has been reported involving a pedestrian (who himself admitted his fault), with the remaining nine being of minor body damage type of accidents and invariably have been compensated for by the 'other party'. This probably is also indicative of good and trained drivers recruited for the project.

(12) Revenue Leakage : There are occasional reports regarding revenue leakage and checks have revealed the tentative amount of leakage at the rate of Rs. 20/- per coach per day. This would mean a monthly revenue leakage of about Rs. 6,000 which is about 3.5 percent of the monthly gross income and about 11 percent of the monthly net income. As a result the checks have been intensified to minimize the leakage.

(13) Patronage type and Perceived Quality of Service : In order to assess the type of patronage and the quality of the service as perceived by the users a sample survey was conducted using the 'Interview Method' with the various passengers/ users of this service. The salient results are briefly described as follows :-

(1) SEX : About 98% of the passengers are Males.

(2) AGE : More than 82% of the users are below 40 years of age.

(3) PROFESSION : Majority of the users are Government Servants (63%)

(4) MONTHLY INCOME : About 45% of the users have a monthly income upto Rs. 2,000/-, 35% between Rs. 2,000 - 5,000 and 10% above Rs. 5,000. (Remaining 10% did not respond).

(5) 'AREA OF INFLUENCE' : The 'area of influence' along the route varies from a minimum of 50 meters to more than 3 K.Ms with about 45% of the users being within a distance of 500 Meters. In terms of the time taken to reach the Pilot Project Stops about 57% of the users spent upto 20 minutes with 43% spending upto ten minutes only.

(6) PERSONAL TRANSPORT OWNERSHIP : As regards personal transport ownership, about 34% of the users own a personalized mode of transport and yet make use of this Service. Of these, 16% own a car and about 18% of the users own either a motor-cycle or a bicycle.

(7) SALE OF TICKETS : About 33% of the users in the sample survey bought 3 - Rupees tickets, 27% bought 2-rupee tickets, 23% 4 rupee tickets and 16% 1 - rupee tickets.

(8) JOURNEY PURPOSE : 70% of the passengers use the service for journey to work followed by 21% for social visits, 8% for Education and 1% for Shopping purposes.

(9) PREVIOUS MODE USED : 63% of the passengers were previously using wagons, 22% private buses, about 6% cars, 5% PRTC buses and about 5% motorcycles, etc.

(10) USAGE : A very loyal clientele has been developed and in about 24% of the cases the passengers make use of the Pilot Bus every time they need to make a journey on the route. In 36% of the cases, passengers make use of this service from 50-75 per cent of the journeys made. In about 40% of the cases, the Pilot Bus is used only occassionally.

(11) FARE : 78% of the users felt that the fare was reasonable with 22 percent of the passengers expressing it as expensive.

(12) PASS : Presently only 1% of the users were making use of the Pass System. However, 28% users stated that they were not aware of the Pass System.

(13) JOURNEY TIME : As regards the journey time, 98% felt that it was reasonable and only 2% felt that it was fast.

(14) WAITING TIME : As regards the waiting time, 53% have to wait for less than 10 minutes, 38 percent for less than 20 minutes with the remaining about 8% for more than 20 minutes. As per the waiting time on the day of the survey, 46% reported no waiting time, 45% a waiting time of less than 10 minutes, 8% less than 20 minutes and 1% less than 30 minutes.

(15) EN-ROUTE STOPS : As regards the en-route stops, 84% felt that it was reasonable while the remaining 16% felt said that the en-route stops were of short duration.

(16) DRIVER/CONDUCTOR BEHAVIOUR : As regards driver/conductor behaviour 99% felt that they had a good/reasonable behaviour, with only 1 percent stating the behaviour as poor.

(17) COMPARISON WITH OTHER PUBLIC TRANSPORT MODES : 96% of the users expressed that it was a better service as compared to other Public Transport modes, 3% labelled it as similar and only 1 percent as bad.

(18) A/C FACILITIES : 58% of the passengers stated that A.C. facilities should be introduced for which 46% even consented to pay an increased fare from 25% to 100% of the present fare.

(19) MORE COACHES : 73% of the users insisted on introduction of more coaches on the existing route.

(20) MORE ROUTES : 40% of the users felt that such coaches be introduced on new routes.

The Survey results have been tabulated and the details may be seen in Annex-VII.

(14) Financial Performance : The gross income and the net income (excluding depreciation) has registered an increase since the project was first inaugurated. The average monthly gross income over the first five months of operation totals Rs. 173,400 with the average net monthly income (excluding depreciation) as Rs. 56,370 for all the ten coaches. The monthly details regarding Income/Expenditure, breakdown of gross income,' other 'expenditure and income from the sale of tickets may be seen in Tables-3.4 to 3.7 respectively.

Based on the income/expenditure position, the following picture emerges :-

PILOT URBAN BUS PROJECT

TABLE : 3.4 MONTHLY INCOME/EXPENDITURE STATEMENT

(Rupees)

S. NO.	Month		Total Km. Operated	Gross Income	EXPENDITURE				Net Income	Remarks
					Pay	Diesel	Others	Total		
1.	2.		3.	4.	5.	6.	7.	8.	9.	10.
1.	June	Overall	46,195	98,002	32,974	35,562.52	7,376	75,912.52	22,089.48	w.e.f. 14.6.87
		Per Km		2.03/Km	0.60/Km	0,74/Km	0.15/Km	1.57/Km	0.45/Km	
2.	July	Overall	89,203	171,690	36,014	61,275	26,194	123,483	48,207	
		Per Km		1.90/Km	0.40/Km	0.68/Km	0.29/Km	1.38/Km	0.54/Km	
3.	August	Overall	77,154	171,001	33,560	59,212	12,844	105,616	65,385	
		Per Km		2.21/Km	0.43/Km	0.76/Km	0.16/Km	1.37/Km	0.34/Km	
4.	Sept.,	Overall	78,945	171,843	32,087	62,868	17,488	122,443	59,400	
		Per Km		2.18/Km	0.41/Km	0.80/Km	0.22/Km	1.42/Km	0.75/Km	
5.	Oct.,	Overall	83,202	176,400	32,047	67,147	23,303	122,497	53,903	
		Per Km		2.12/Km	0.39/Km	0.81/Km	0.28/Km	1.47/Km	0.65/Km	
6.	Nov. Upto 13th)	Overall	33,182	78,148	13,480	27,214	4,592	45,286	32,862	Upto 13th Nov., 1987
		Per Km		2.36/Km	0.40/Km	0.82/Km	0.14/Km	1.36/Km	0.99/Km	
Total : 14th June- 13th Nov.)		Overall	407,881	867,084	180,162	313,278.52	91,797	585,237.52	281,846.48	
		Per Km		2.12/Km	0.44/Km	0.77/Km	0.23/Km	1.44/Km	0.69/Km	

PILOT URBAN BUS PROJECT

TABLE : 3.5 BREAKDOWN OF GROSS INCOME

(Rs.)

S. No.	Month	Sale of Tickets	Monthly Passes	Special Booking	Total Gross Income	Remarks
1.	2.	3.	4.	5.	6.	7.
1.	June	96,352	1,650	-	98,002 (11.3)	w.e.f. 14.6.1987
2.	July	169,590	2,100	-	171,690 (19.8)	
3.	August	169,301	900	800	171,001 (19.7)	
4.	September	170,793	1,050	-	171,843 (19.8)	
5.	October	176,100	300	-	176,400 (20.3)	
6.	November	75,148	1,350	1,650	78,148 (9.0)	Upto 13.11.1987
Total (14th June - 13th November, 1987)		857,284 (98.9)	7,350 (0.8)	2,450 (0.3)	867,084 (100)	

PILOT URBAN BUS PROJECT

TABLE 3.6 BREAKDOWN OF 'OTHER' EXPENDITURE

S. No.	Month	Token	Challans	Printing of Tickets	Uniforms	Maintenance & Spare Parts	Engine/Brake Oil, Filters, Servicing	Miscellaneous (Stationery, Collers, etc.)	Total	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	June	-	100	-	2,760	295	2,094	2,127	7,376 (8.0)	w.e.f. 14.6.87
2.	July	12,341	300	-	2,590	1,328	7,225	2,410	26,194 (28.5)	
3.	August	-	1,500	-	1,230	2,300	7,481	333	12,844 (14.0)	
4.	September	-	-	5,835	-	3,723	6,842	1,088	17,488 (19.1)	
5.	October	11,310	-	-	-	3,522	8,079	392	23,303 (25.4)	
6.	November	-	300	-	-	182	3,618	492	4,592 (5.0)	upto 13.01.1987
Total (14th-June-13th Nov.)		23,651 (25.7)	2,200 (2.4)	5,835 (6.4)	6,580 (7.2)	11,350 (12.4)	35,339 (38.4)	6,842 (7.5)	91,797 (100)	

PILOT URBAN BUS PROJECT

TABLE 3.7 SALE OF TICKETS

S. NO.	Month	NUMBER					AMOUNT (Rs.)					Remarks
		Rs.1	Rs.2	Rs.3	Rs.4	Total	Rs.1	Rs.2	Rs.3	Rs.4	Total	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1.	June	8,962	13,826	12,622	5,468	40,878 (11.2)	8,962	27,652	37,866	21,872	96,352 (11.2)	w.e.f. 14.6.87
2.	July	15,774	24,336	22,216	9,624	71,950 (19.7)	15,774	48,672	66,648	38,496	169,590 (19.8)	
3.	August	15,751	24,294	22,178	9,607	71,830 (19.6)	15,751	48,588	66,534	38,428	169,301 (19.7)	
4.	September	16,200	25,353	21,369	9,945	72,867 (19.9)	16,200	50,706	64,107	39,780	170,793 (19.7)	..
5.	October	15,204	26,921	23,682	9,002	74,809 (20.5)	15,204	53,842	71,046	36,008	176,100 (20.5)	..
6.	November	7,600	13,197	9,010	3,531	33,338 (9.1)	7,600	26,394	27,030	14,124	75,148 (8.8)	Upto 13.11.87
	Total (14th June-13th November,1987)	79,491 (21.7)	127,927 (35.0)	111,077 (30.4)	47,177 (12.9)	365,672 (100)	79,491 (9.3)	255,854 (29.8)	333,231 (38.9)	188,708 (22.0)	857,284 (100)	

ebd

(a) Pay Back Period

- Overall 4.4 Years
- Operator 3.7 Years
- Investor 5.5 Years

Details may be seen in Table 3.8.

(b) Return on Investment

Taking depreciation into account and based on an average life of 10 years for the coach, the following position emerges :

- Overall 12.9%
- Operator 17.4%
- Investor 8.4%

Details may be seen in Table 3.9.

It may thus be seen from the above that while the project is financially attractive for the Operator, it is not so for the investor considering that the prevalent bank rate and return on other schemes is in the neighbourhood of 15%.

It may, therefore, be concluded that for imparting permanence, raising of investors by the Operator may not be of a durable/lasting nature. This may also suggest that there may be a temptation to increase the number of investors because of the assured commission received from the other investors which significantly improves the financial returns to the Operator. Such Commission typically constitutes about 35 percent and 20 percent of the net income with and without depreciation respectively accruing to the Operator from the operation of his own 5 coaches.

TABLE : 3.8. PAY BACK PERIOD

(Rs. Million)

S. No.	Description	Capital Expenditure	Net Monthly Income (w/o Dep)			Pay Back Period	
			Direct	Commission	Total	Months	Years
1.	2.	3.	4.	5.	6.	7.	8.
1.	Overall	3.0000	0.0564	-	0.0564	53.2	4.4
2.	Operator	1.5000	0.0282	(+) 0.0056	0.0338	44.3	3.7
3.	Investor	1.5000	0.0282	(-) 0.0056	0.0226	66.5	5.5

TABLE : 3.9 RETURN ON INVESTMENT

(Rs.Million)

S. No.	Description	Capital Expenditure	NET MONTHLY INCOME (WITH DEP.)			Annual Rate of Return
			Direct	Operator's Commission	Total	
1.	2.	3.	4.	5.	6.	7.
1.	Overall	3.0000	0.00322	-	0.0322	12.9%
2.	Operator	1.5000	0.0161	(+) 0.0056	0.0217	17.4%
3.	Investor	1.500	0.0161	(-) 0.0056	0.0105	8.4%

IV. CONCLUSIONS

Analysis of the User opinion, operational and financial performance as detailed in Chapter - III clearly show that the Pilot Project has proved to be successful and despite a limited number of coaches, a very loyal clientele has been developed over the limited period since it was launched.

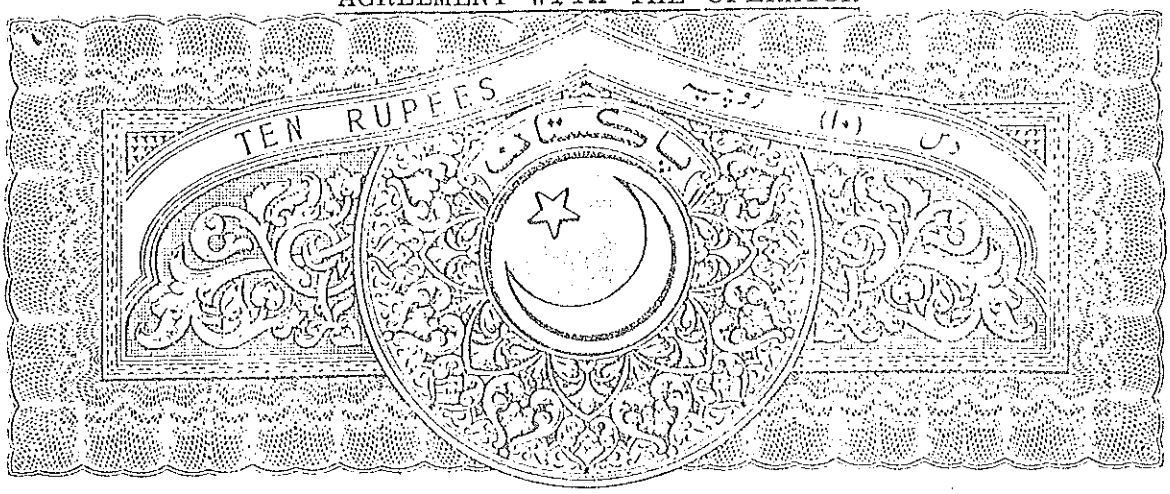
The success of any project is dependent on satisfying the requirements of all the concerned parties viz users and the entrepreneur, including investors. While the requirements of the Operator and the users are being adequately met, the return on investment to the investor does not seem to be attractive. However despite these problems in the financing arrangements, the thesis that quality service can be provided at premium fares by the private sector stand confirmed and there is sufficient demand to sustain the existence of such a quality service which would infact serve as the intermediate mode of transport between a 'basic bus' and a 'Taxi Service'. The introduction of such a service would certainly tend to have a 'sympathetic and a healthy effect' on other Public Service vehicles and an example of it is that after the introduction of the Pilot Project, Mini-Bus and Wagon Union have also erected their Bus Stops for the convenience of the passengers at various places.

There are however certain important points which deserve special attention and these include the provision of adequate credit facilities to the private sector entrepreneurs as it may not always be possible to raise investors for the purpose because of the aforementioned reason. With the declaration of transport as an Industry it is believed that this aspect would be adequately taken care of. However, an important component specially for urban transportation is the provision of a suitable location for terminals, which may require government assistance by providing suitable terminal facilities on direct repayment or leased basis to a group/association of operators. Alternatively operators may pay a monthly or daily fee depending on usage. Depots, together with maintenance and servicing facilities need also to be provided in a similar manner. To start with, such facilities may be shared with the existing Road Transport Corporations on suitable terms and conditions.

Utmost care/monitoring is however necessary to ensure quality service on a continuing basis because there is always a temptation, surprisingly from the users as well, to go for 'over-loading', requesting the driver/conductor to stop at any place of their choice without regard to the designated stop, etc. It is here that the regulatory agencies will have to play their due role.

A N N E X U R E S

AGREEMENT WITH THE OPERATOR



A G R E E M E N T

This Agreement is made on this 14TH day of JANUARY of the year one thousand nine hundred and eighty seven, between the President of the Islamic Republic of Pakistan hereinafter referred to as the 'President' (which expression shall, where the context so admits, mean his successors in office and assignees) as party of the first part and M/S Al-Abbas Services and Engineering, 108-C, Faisal Town, Lahore hereinafter referred to as the 'Operator' (which expression shall, where the context so admits, include their administrators and legal representatives) as party of the second part for operating 'Pilot Urban Bus Project' hereinafter referred to as the 'Project' for a limited period of time.

Whereas the Operator have, on the desire of the President consented to undertake the Project it is hereby agreed by and between the parties hereto as follows :-

(1) Description of the Project : The Project will be titled 'PILOT URBAN BUS PROJECT'. The Project would study the effects of de-regulation of urban bus fares by introducing on a pilot basis for a period of one year a High Quality Bus Transport on the route between Mall Road (Rawalpindi) and Islamabad (Secretariat).

(2) Duties to be Performed by the Operator : The Project shall be carried out by the Operator in accordance with the following terms and conditions :-

(1) To start with, the Operator would provide ten number Non-Airconditioned High Quality 26-Seater Mazda Coaches with locally fabricated bodies as shown in the Photograph (Annex-I) on the route between Mall Road (Rawalpindi) and Islamabad (Secretariat). The exact route shall be determined by mutual agreement.

(2) Provide a seat for each passenger and would not resort to overloading under any circumstances.

(3) Follow an approved Time Table and route.

(4) Would not resort to any kind of competition among or with others.

...

(5) Would stop only at designated points solely for the purpose of putting down or picking up passengers.

(6) Would maintain detailed operational and financial record and let the President examine such records whenever and in whatever form President desire to determine the extent of profitability or otherwise of the Pilot Project.

(7) Would charge the fare as mutually agreed, which would however be subject to continuous review.

(8) Would operate only those buses having standards and specifications as given in Annex-II of this Agreement.

(9) The entire expenditure on buses, including their operation and maintenance, etc. would be met by the Operator.

(10) The Operator would take immediate steps to complete all the formalities such as procurement/fabrication of vehicles, route permit, fitness certificate, insurance, registration, etc. to commence operation as soon as possible but not later than 3 months after signing of the Agreement.

(11) The Operator would paint the buses in colour and design agreed to by the President to give them a distinctive look.

(12) The Operator shall submit a detailed time schedule for operating the proposed service for the approval of the President.

(13) The Operator shall provide uniform of the design approved by the President to the driver and conductor (if any) of each bus.

(14) The Operator shall arrange for route acquaintance training for driver of each bus individually.

(15) Each driver and conductor (if any) would undergo one-week advance driver training/orientation course in the Driver Training School of Ministry of Communications before deploying on the project. The training would however be on one of the buses to be used for the project.

(16) The Bus Stops would be identifiable by a distinctive sign duly approved by the President. At each of the Bus Stops, the Signs shall also clearly indicate the Time Table for the convenience of the passengers.

Selection of the Bus Stops along the route will be carried out by mutual consultation. Such places where Bus-Bays have already been provided would be preferred.

(3) Duties of the President :

(1) The President would meet the expenditure on the design, fabrication and installation of 'Bus Stop Signs', initial publicity campaign and monitoring of the project, collection and analysis of data and writing up the final report.

(2) Each of the vehicle to be used for the project shall be individually inspected by the President and approved before their commencement of operation.

(3) In case the Project is not financially successful, the President would recommend the Operator to the concerned authority for provision of inter/intra-city route permit for plying the vehicles used in the Project.

(4) If need be, the President would recommend to the financial institutions and commercial banks for the provision of loan for the pilot project to the Operator, against the appropriate guarantee provided by the Operator, as per the prevalent procedures.

(4) Other Terms and Conditions : In case need arises for increasing the number of buses beyond what the Operator has initially provided, the Operator shall have the first option and other firms shall be allowed only if the Operator is not in a position to provide the desired number of additional buses, within a period of one month.

(5) Project Period :

(1) Project Mobilization Time : The Project mobilization time effective from the date of execution of this Agreement would be 3 months.

(2) Project Completion Time : The Project shall be completed in 15 months from the date of execution of this Agreement in accordance with the terms and conditions mentioned in Parts (1) to (4) of the Agreement.

(6) Termination of the Agreement : This Agreement can be terminated by either party by giving thirty days notice subject to the following :-

(1) Termination by the President :

(a) Should any unforseen exigencies arise as a result of undertaking/implementation of this project, the President may terminate this Agreement without any financial liability/ claims by the Operator, if any.

(b) In case the Operator fails to commence the project within stipulated period, the President shall have the right to terminate the Agreement and assign the Project to any other interested firm and would not be held responsible for any expenditure, etc. that may have been incurred by the Operator on the Project.

(c) In case the performance of the Operator is not found satisfactory or any of the terms and conditions (as mentioned in Part (2), (4) and (5) of the Agreement) are not strictly adhered to, the President may terminate the Agreement and such termination shall constitute abandonment of all types of obligations under the contract on the part of Operator thereby invoking the provision of 6 (d) below.

(d) Should the Operator abandon their obligations under this agreement without any just cause (regarding 'just cause', decisions of the President shall be final and binding), the President shall be refunded the total expenditure that may have been incurred on the Project. And should the Operator abandon their said obligations without any just cause,

he shall also pay to the President the extra expenditure, which in the President's opinion would be involved in the employment of other Operators to perform and carry on their duties, under this Agreement.

(2) Termination by the Operator : The Operator may terminate this Agreement at any time by giving thirty days notice to the President without any financial liability/claims on the President and subject to clauses mentioned at 6(1) above.

(7) In WITNESS WHEREOF, the parties hereto have herein set their hands and seals the day and year first above written.

WITNESSES

1. Abdul Majeed
(ABDUL MAJEED)
NTRC

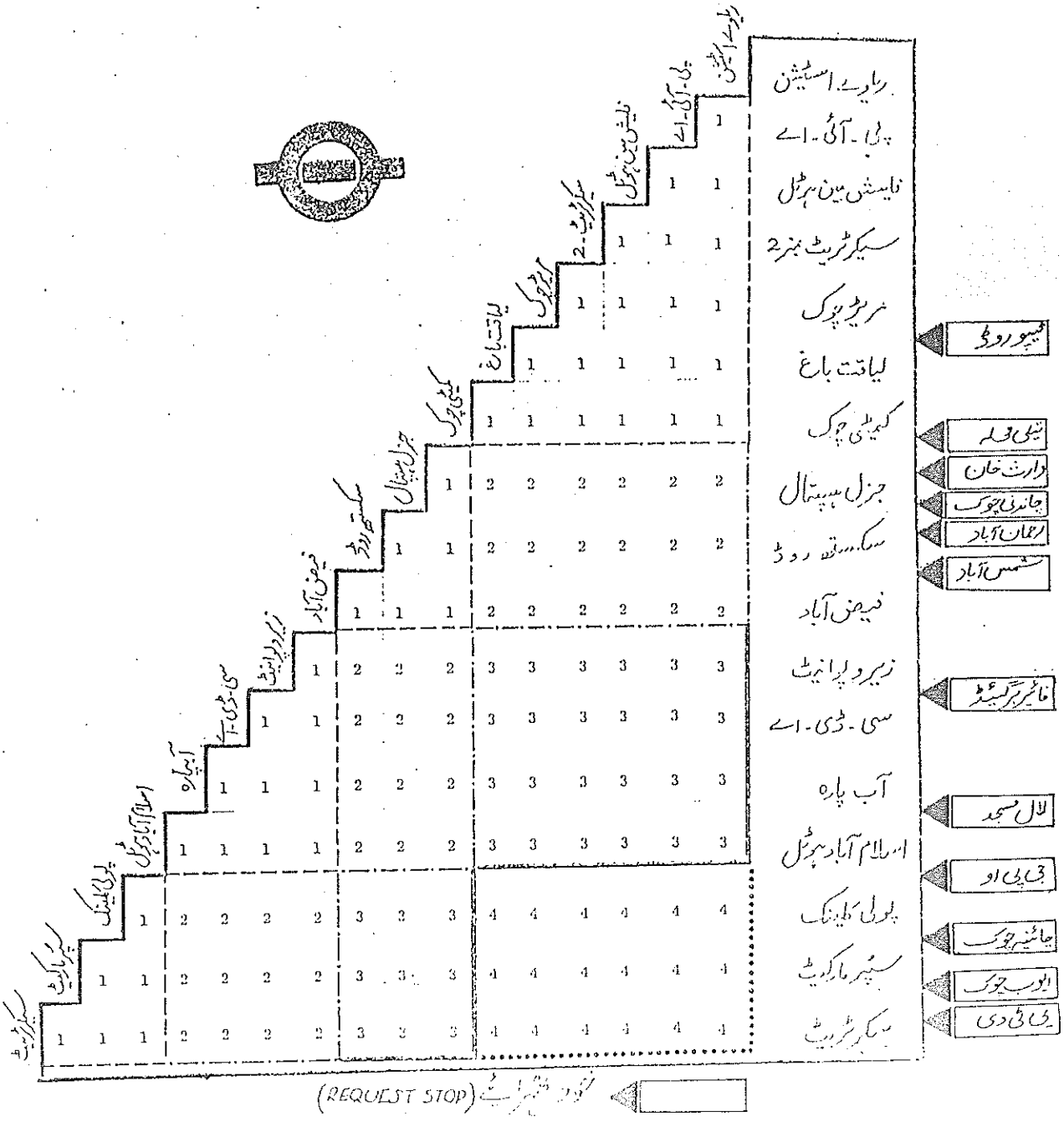
2. [signature]
(MUHAMMAD FAZIH IDRIS)
NTRC

i) _____
M/S Al-Abbas Services & Engg.
OPERATOR

ii) M. Sadiq Swati
Mr. M. Sadiq Swati, Chief,
National Transport Research
Centre, Planning Commission,
on behalf of the PRESIDENT

ـ ایم ـ ٹی ـ آر ـ سی ـ کرایہ جاتی منصوبہ

کرایہ نامہ ریلوے اسٹیشن تا سیکرٹریٹ اسلام آباد



ANNEX-III

PILOT URBAN BUS PROJECT

SUMMARIZED TIME TABLE

(Sunday to Thursday)

SECRETARIAT TERMINAL			RAILWAY STATION TERMINAL		
Interval	Timing From	To	Interval	Timing From	To
1.	2.		3.	4.	
After Every 10 Minutes	06:17	06:57	After Every 10 Min.	06:20	07:50
	13			15	
"	07:10	08:40	"	08:05	09:35
	25			25	
"	09:05	10:35	"	10:00	11:30
	25			60	
"	11:00	11:20	"	12:30	14:00
	30			25	
"	11:50	12:40	"	14:25	15:55
	20			35	
"	13:00		"	16:30	18:00
	30			25	
"	13:30	15:00	"	18:25	19:55
	25				
"	15:25	16:55			
	35				
"	17:30	19:00			

ANNEX-III
(Contd.)

PILOT URBAN BUS PROJECT

SUMMARIZED TIME TABLE

(Friday)

SECRETARIAT TERMINAL			RAILWAY STATION TERMINAL		
	Timing			Timing	
Interval	From	To	Interval	From	To
After every 20 minutes	07:00	08:20	After every 15 Min.	08:00	09:20
	35			35	
"	08:55	10:15	"	09:55	11:15
	35			65	
"	10:50	12:10	"	12:20	13:40
	65			35	
"	13:15	14:35	"	14:15	15:35
	35			35	
"	15:10	16:30	"	16:10	17:30
	35			35	
"	17:05	18:25	"	18:05	19:25

ANNEX-III
(Contd.)

PILOT URBAN BUS PROJECT

SUMMARIZED TIME TABLE

(Saturday)

SECRETARIAT TERMINAL			RAILWAY STATION TERMINAL		
Interval	Timing From	To	Interval	Timing From	To
After Every 15 Minutes	06:42	06:57	After every 15 Min.	06:20	07:50
	13			15	
"	07:10	08:40	"	08:05	09:35
	25			25	
"	09:05	10:35	"	10:00	11:30
	25			60	
"	11:00	12:30	"	12:30	14:00
	60			25	
"	13:30	15:00	"	14:25	15:55
	25			25	
"	15:25	16:55	"	16:20	17:50
	25			25	
"	17:20	18:50	"	18:15	19:45

ANNEX-IV

PILOT URBAN BUS PROJECT

POINT-TO-POINT JOURNEY TIME AND BUS STOP DISTANCES

S. NO.	Stops	Cumulative Time (Minutes)	Distance (Kms) Point to Point	Distance (Kms) Cumulative
1.	2.	3.	4.	5.
1.	Pak. Secretariat		0.00	0.00
2.	P.T.V.	01	0.32	0.32
3.	Ayub Chowk	02	0.32	0.64
4.	Super Market	03	0.64	1.28
5.	China Chowk	05	0.84	2.12
6.	Poly Clinic	06	0.34	2.46
7.	G.P.O.	07	0.48	2.94
8.	Islamabad Hotel	08	0.32	3.26
9.	Lal Masjid	10	0.64	3.90
10.	Aabpara	12	0.64	4.54
11.	C.D.A.	13	1.44	5.98
12.	Fire Brigade	14	0.64	6.62
13.	Zero Point	15	0.64	7.26
14.	Faizabad	20	4.64	11.90
15.	Shamsabad	23	1.28	13.18
16.	6th Road	24	1.12	14.30
17.	Rehmand Abad	25	0.48	14.78
18.	Chandni Chowk	26	0.96	15.74
19.	G.H. Hospital	27	0.32	16.06
20.	Waris Khan	29	1.32	17.38
21.	Committee Chowk	31	1.28	18.66
22.	Liaquat Bagh	33	0.08	19.46
23.	Marcer Hasan	35	0.64	20.10
24.	Secretariat No.II	36	0.64	20.74
25.	Flashmans	38	0.64	21.38
26.	P.I.A.	40	1.10	22.48
27.	Rly. Station	50	-	23.12

LOAD FACTOR ASSESSMENT

I. AS PER PASSENGER COUNT SURVEY

STAGE	AVERAGE LOAD FACTOR (%AGE)
• Pak. Sectt. to Islamabad Hotel	31
• Islamabad Hotel to Faizabad	61
• Faizabad to Liaquat Bagh	63
• Liaquat Bagh to Railway Station	49
Overall	52

II. AS RATIO OF MAXIMUM TO ACTUAL GROSS INCOME

• Maximum Fare (Rs)	4
• Seats (No.)	24
• Maximum Estimated Income/ Trip (Rs.)	96
• Total No. of trips operated (5 months)	17,390
• Maximum Estimated Income from trips operated (Rs.)	1,669,440
• Actual Gross Income from sale of tickets (Rs.)	857,284
• Ratio of Actual to Maximum Gross Income	51.4

PUBLIC TRANSPORT FARES
(RAWALPINDI-ISLAMABAD)

• Mini Bus and Wagon	Rs.	Rs./Km
Upto 2 Km	0.65	0.325
2 - 3 Km	0.75	0.250
Upto 5 Km	1.00	0.20
5 - 8 Km	1.25	0.156
9 - 12 Km	1.75	0.146
13 - 15 Km	2.00	0.133
Upto 20 Km	2.25	0.1225
(20 + (Say 25 Km)	2.50	0.100

Varies from Rs. 0.1 to 0.325/Km

• PRTC Bus		
0 - 7 Km	1.00	0.143
7 - 15 Km	2.00	0.133
15 and over (Say 25 Km)	2.50	0.100
Students	.25	

Varies from Rs. 0.100 to 0.143/Km

• Pilot Urban Bus Project		
0 - 5 Km	1.00	0.200
5 - 11 Km	2.00	0.181
11 - 19 Km	3.00	0.157
19 - 23 Km	4.00	0.173

Varies from Rs. 0.157 to 0.200/Km

ANNEX-VII

PILOT URBAN BUS SERVICE

PASSENGER OPINION

SURVEY

TABLE : 1 DISTRIBUTION BY SEX

SEX	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
MALE	177	98.3
FEMALE	3	1.7
TOTAL	180	100

TABLE : 2 DISTRIBUTION BY AGE

AGE GROUP	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
UPTO 20 Years	7	3.9
20 - 30 Years	79	43.9
30 - 40 Years	62	34.5
40 - 45 Years	23	12.8
Above 50 Yrs.	9	5.0
TOTAL	180	100.0

TABLE : 3 DISTRIBUTION BY PROFESSION

PROFESSION	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
GOVT. SERVANT	114	63.3
BUSINESS MAN	23	12.7
LABOUR	-	-
LANDLORD	-	-
STUDENTS	15	8.3
OTHERS	28	15.6
NOT STATED	-	-
TOTAL	180	100.0

TABLE : 4 DISTRIBUTION BY INCOME

MONTHLY INCOME	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
Upto 1000	17	9.4
1000 - 1500	32	17.8
1500 - 2000	32	17.8
2000 - 3000	24	13.3
3000 - 4000	25	13.9
4000 - 5000	14	7.8
Above 5000	18	10.0
Not Stated	18	10.0
TOTAL	180	100.0

TABLE : 5 'AREA OF INFLUENCE' (IN TERMS OF DISTANCE)

DISTANCE TO REACH AT THE ORIGIN	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
Upto 50 meters	35	19.5
50 - 100 meters	10	5.6
100 - 200 meters	11	6.1
200 - 500 meters	28	15.6
1 Km - 1½ Km	12	6.7
1½ Km - 2 Km	1	0.6
2 Km - 3 Km	3	1.7
3 Km and above	9	5.0
No Response	71	39.4
TOTAL :	180	100.0

TABLE : 6 'AREA OF INFLUENCE' (IN TERMS OF TIME)

TIME TAKEN TO REACH AT THE ORIGIN	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
Upto 10 minutes	77	42.8
10 - 15 minutes	18	10.0
15 - 20 minutes	7	3.9
20 - 25 minutes	2	1.1
25 - 30 minutes	3	1.7
30 minutes and above	2	1.1
No response	71	39.4
TOTAL	180	100.0

TABLE : 7 PERSONAL TRANSPORT OWNERSHIP

PERSONAL TRANSPORT OWNERSHIP	TOTAL NUMBER OF PASSENGERS TRAVELLING IN NTRC	PERCENTAGE
1.	2.	3.
CAR	29	16.1
MOTORCYCLE/SCOOTER	22	12.2
BICYCLE	10	5.6
NOTHING	106	58.9
NOT STATED	13	7.2
TOTAL :	180	100.0

TABLE : 8 SALE OF TICKETS

FARE AMOUNT	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
ONE RUPEE	29	16.1
TWO RUPEES	49	27.2
THREE RUPEES	60	33.3
FOUR RUPEES	41	22.8
PASS	1	5.6
NOT STATED	-	-
TOTAL :	180	100.0

TABLE : 9 JOURNEY PURPOSE

JOURNEY PURPOSE	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
WORK	126	70.0
SHOPPING	2	1.4
EDUCATION	15	8.3
RECREATION	-	-
SOCIAL VISIT	37	20.6
TOTAL :	180	100.0

TABLE : 10 PREVIOUS MODE USE

PREVIOUS MODE OF TRAVELLING	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
PRTC	9	5.0
PRIVATE	39	21.7
WAGONS	113	62.8
CARS	10	5.6
TAXI	-	-
MOTOR CYCLE	3	1.7
RICKSHAW	-	-
OTHERS	6	3.3
TOTAL :	180	100.0

TABLE : 11 USE OF PILOT URBAN BUS PROJECT

USE OF PUBS (PILOT URBAN SERVICE)	TOTAL NUMBER OF PASSEGNERS	PERCENTAGE
1.	2.	3.
EVERY TIME	43	23.9
75%	18	10.0
50%	48	26.7
OCCASSIONALLY	71	39.5
NOT STATED	-	-
TOTAL :	180	100.0

TABLE : 12 FARE STRUCTURE

FARE	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
CHEAP	-	-
REASONABLE	140	77.8
EXPENSIVE	40	22.2
NOT STATED	-	-
TOTAL :	180	100.0

TABLE : 13 PASS SYSTEM

PASS	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
OBTAINED	2	1.1
NOT OBTAINED	125	69.5
NOT KNOWN	51	28.3
OTHERS	2	1.1
TOTAL :	180	100.0

TABLE : 14 JOURNEY TIME

JOURNEY TIME	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
SLOW	-	-
REASONABLE	176	97.8
FAST	4	2.2
TOTAL	180	100.0

TABLE : 15 WAITING TIME

WAITING TIME	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
LESS THAN 10 MINUTES	96	53.3
LESS THAN 20 MINUTES	69	38.3
LESS THAN 30 MINUTES	10	5.6
OTHERS	5	2.8
TOTAL :	180	100.0

TABLE : 16 WAITING TIME ON THE DAY OF SURVEY

TODAY'S WAITING TIME	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
LESS THAN 10 MINUTES	81	45.0
LESS THAN 20 MINUTES	15	8.3
LESS THAN 30 MINUTES	2	1.1
NIL	82	45.6
TOTAL :	180	100.0

TABLE : 17 ENROUTE STOPS

ENROUTE	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
SHORT	28	15.6
REASONABLE	152	84.4
LONG	-	-
TOTAL	180	100.0

TABLE : 18 DRIVER/CONDUCTOR BEHAVIOUR

DRIVER/CONDUCTOR BEHAVIOUR	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
GOOD	160	88.9
REASONABLE	18	10.0
POOR	2	1.1
TOTAL	180	100.0

TABLE : 19 COMPARISON WITH OTHER PUBLIC TRANSPORT MODES

COMPARISON WITH OTHER PUBLIC TRANSPORT	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
BETTER	173	96.1
SIMILAR	6	3.3
BAD	1	0.6
TOTAL :	180	100.0

TABLE : 20 A/C FACILITIES

A/C FACILITIES	TOTAL NUMBER OF PASSENGRES	PERCENTAGE
1.	2.	3.
YES	105	58.3
NO	75	41.7
TOTAL	180	100.0

TABLE : 21 INCREASED FARE FOR A/C FACILITIES

A/C JOURNEY FARE	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
UPTO 25%	5	2.8
25% - 50%	22	12.2
50% - 75%	19	10.6
75% - 100%	11	6.1
Above 100%	23	12.8
SAME	23	12.8
NO RESPONSE	77	42.8
TOTAL	180	100.0

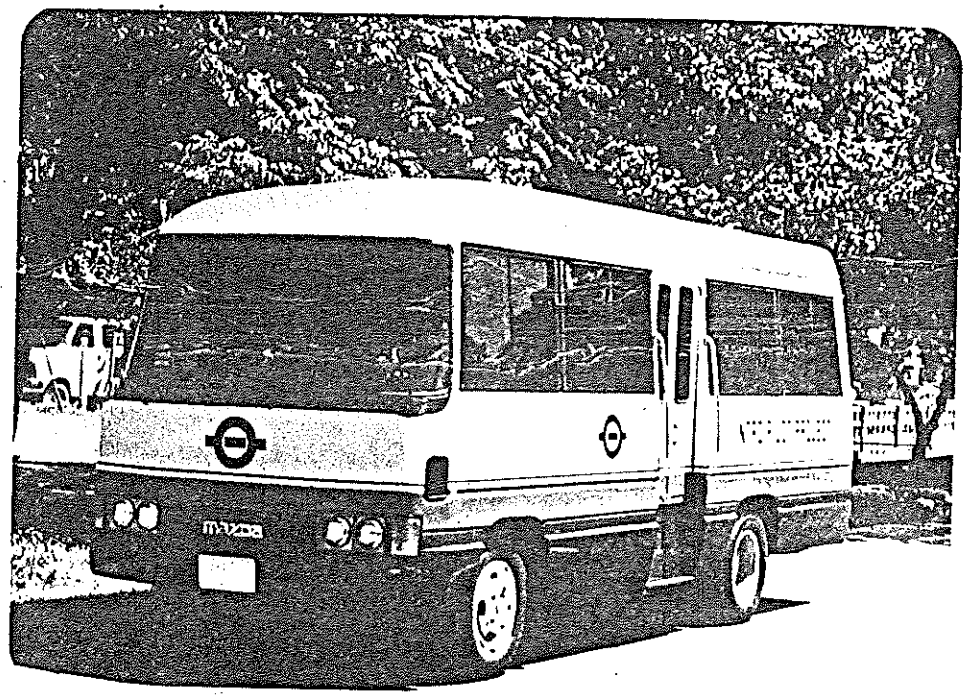
TABLE : 22 MORE COACHES ON THE EXISTING ROUTE

MORE COACHES ON THE EXISTING ROUTES	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
YES	133	73.8
NOT STATED	47	26.1
TOTAL	180	100.0

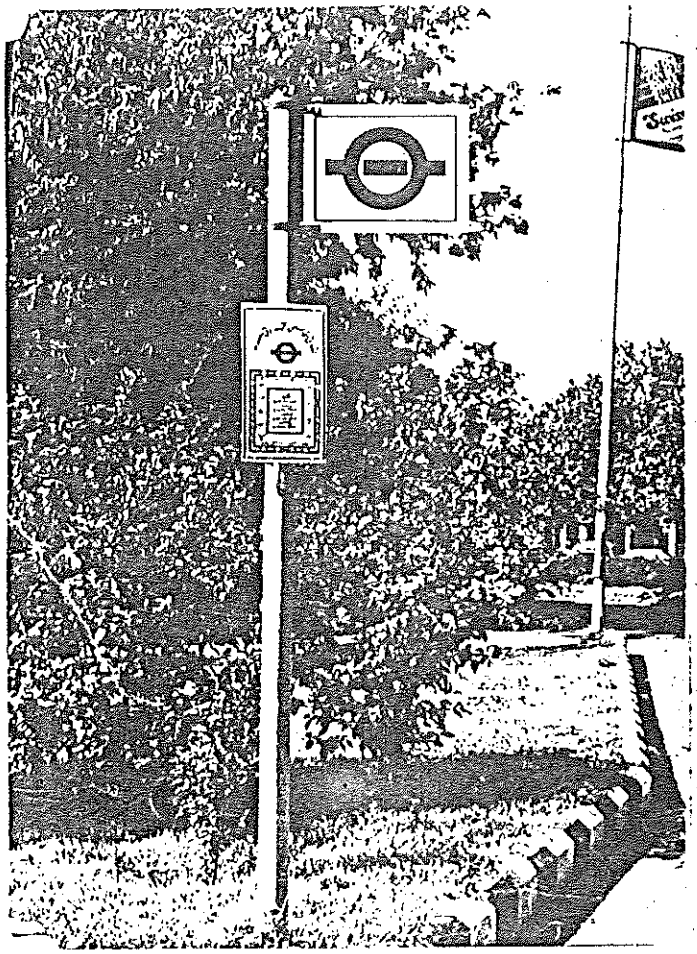
TABLE : 23 INTRODUCTION OF NEW ROUTES

INTRODUCTION OF NEW ROUTES ...	TOTAL NUMBER OF PASSENGERS	PERCENTAGE
1.	2.	3.
YES	72	40.0
NOT STATED	108	60.0
TOTAL :	180	100.0

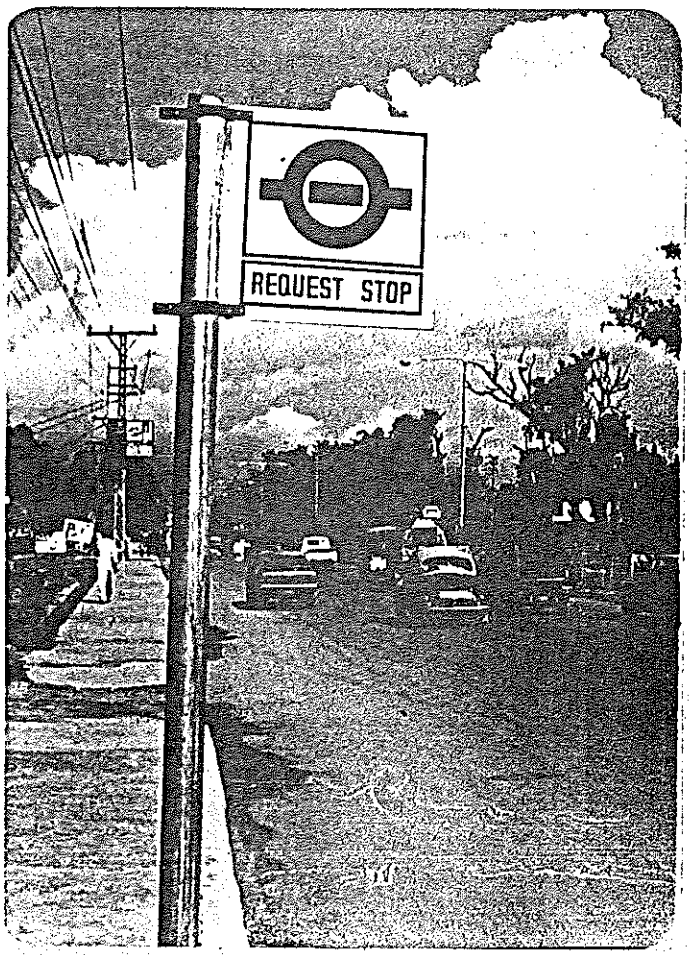
PHOTOGRAPHS



NTRC PILOT URBAN BUS



REGULAR BUS STOP



REQUEST STOP

TIME TABLE/ROUTE DIAGRAM BOARD