HASHEMITE KINGDOM OF JORDAN

PRIVATIZATION
OF THE
PUBLIC TRANSPORT CORPORATION

A REPORT WITH RECOMMENDATIONS

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P.T.C. Privatization

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Proposed PTC Privatization

Summary of Recommendations and Implementation Programme

Aim of the Report: The report suggests that the privatization of the PTC, while important in itself, is also the first of a series of steps which the Government can take to improve all public transport in Greater Amman. The PTC is placed in its setling and shown to be carrying only 20% of public transport passengers. The company has cost Government over JD 5 million in capital funding and is currently losing about JD 1 million a year.

who is making profits?

The report examines the reasons for the PTC being the only loss-maker in a profitable field. They mostly stem from:- why is this a problem?

- the initial misconception of the PTC as a monopoly. Since its creation in 1975 it has always been a minority supplier in a highly competitive situation.

- government intervention via at least 4 agencies has frustrated any commercial effectiveness which the PTC might have developed

- the lack of an overall public transport policy directed towards the improvement of all modes of transport in the public interest. Specifically there is no properly designed route-network to embrace buses, minibuses and servis. These have been treated as though they are incompatible, but they are in fact complementary

- terms and conditions for licensing and controlling public transport are divisive and unhelpful to operators and public alike.

Practical measures are suggested not only for the best means of privatizing the PTC but for the unified, expert control of public transport. The basis for these measures is the creation of a comprehensive route network catering for large and small buses and for servis. Once that exists Government has something to sell to all operators. The marketing of the route-network will bring the private PTC and all other operators into contractual relationships with a Public Transport Authority. There should be no question of subsidizing operators; on the contrary they will pay the Authority for the right to operate routes which are all designed to be profitable.

Supporting Assessments:

Introductory: The consultants restate the objectives of the Government of Jordan in its privatization policy and discuss public transport supply and demand in Greater Amman including links with Salt, Bak'aa, Zarqa, Queen Ali Airport and Madaba. The importance of the PTC relative to other modes is assessed. The demand averages about 0.6 trips per capita daily. Even so there is latent demand which will allow the expansion of public transport services not necessarily by increasing the number of vehicles but by redesigning routes, upgrading servis operations and by the improved performance of the PTC in private ownership.

The PTC: The present operations of the PTC are examined in detail. The company has gone the way of most publicly owned transport monopolies. Its operations, engineering and overall direction are defective in many ways - lack of proper records being one of them. The high kilometrage (73,000 Kms annually) and low passenger attraction relate partly to poor routes but also to lack of co-ordination, overmanning and ineffectual supervision. The large bus compares unfavourably with the small bus and minibus, even with servis in Central Amman.

Other Modes: The contribution of servis, other public buses and 21-seaters is assessed and performance compared in terms of cost and revenue per vehicle/Km. In particular the servis are examined and practical means of upgrading them together with the PTC adumbrated. It is suggested that their services and profits can be enhanced and their employment safeguarded within the proposed comprehensive route-network if they are encouraged to purchase 10 seat minibuses using diesel fuel, and constructed for stage-carriage work.

The PTC in Private Ownership: The report outlines the type of management, operations, engineering and financial/information control which the private owners of the PTC are likely to adopt. A good selection of competitive routes is essential to the private PTC. The improvement of PTC performance to equal other public bus operation and profit is achievable.

Administration and Route Revision: It is suggested that the revision of all public transport routes in Greater Amman be the starting point for a unified Public Transport Authority to be formed and to acquire expertize. A single comprehensive network would be identified, passenger generation calculated and bus, minibus and servis operators invited to take up a route or package of discrete routes. Service levels would be stipulated and /or negotiated and route-franchise fees charged to operators. Franchises would run for renewable 5 year periods subject to performance, equitable fares and the need to preserve competition. The Authority would take over all licensing for pulbic passenger vehicles, their inspection and driving qualifications. Its cost would be met from its very substantial revenue. Franchising fees alone would amount to an estimated JD 230,000 for each percentage point levied by Government decision.

A checklist of legal points is submitted to enable the Authority to function.

Benefits: Financial and other benefits accruing from the recommended changes are summarized. They are in line with Government's general objectives in privatization.

Privatization: Procedural Options: Options procedure for the sale of the PTC are reduced to 2 serious alternatives. One waits for 6 months and watches events, notably route revision and the formation and training of a Public Transport Authority. The other option is immediate sale of the equity as soon as the present PTC is dissolved and new company formed.

The first option is preferred because it leaves Government with more freedom of action and more likelihood of attracting realistic bids from investors who actually wish to operate the company. The second option - immediate sale - would almost certainly oblige Government to arrange an institutional sale and the buyers to continue the PTC as presently operated until the rest of Government's control measures are in place.

Note:- Much of the specialists' background papers and estimations are contained in the separate volume- Working Memoranda.

CHAPTER I

INTRODUCTION

1.1 Background to Privatization in Jordan: Privatization is being actively pursued in Jordan, yet not without constraint. The Government recognises the value of increased competition and efficiency, but believes also that the profit motive and complete adherence to market forces may not entirely satisfy Government's social, political and economic responsiblities. That is the conclusion of the theme paper 'The Role of the Private Sector in Development' presented at an international conference in Amman in November 1986.

The same paper charts the relative impact of public and private investment in Jordan since 1984 and makes clear that in some areas, development would either not have taken place or would have happened too slowly without state intervention.

1.2 The PTC: Turning directly to consideration of the public Transport Corporation (PTC) it is accepted that the attempt to create an orderly monopoly of public transport in the form of a state-owned bus company was well intentioned but based upon a false estimate of private interests already in the field.

The PTC was established in 1975 to replace a small and unsuccessful group of private bus operators. Government was led to believe that the servis shared-taxis would somehow fade away if faced with opposition from a company in a monopoly position with a planned fleet of 500 large buses. The acceptance of IPT (Intermediate Public Transport) as a "respectable" form was only just beginning to take root. The PTC is not a total failure. It was required to do the impossible, to displace the servis, a strong and very popular mode of transport in individual ownership. Its performance

in covering two thirds of its operating expenditure would be considered quite normal in most industrial countries where state monopolies commonly require 50% or more treasury subsidy.

1.3 The Government's Motives: The motives of the Government of Jordan in seeking to privatize the PTC are very similar to those of the U.S.A. and Great Britain. Proceeding from the general principles already quoted to detailed discussions with senior officials and others the following motives predominate:-

1.3.1- Government is conscious that the resources provided for the PTC are under-utilized and are more likely to be exploited fully in a privately-owned operation which is commercially motivated.

1.3.2- Government wishes to surrender its one direct operating interest in public transport because its involvement in the PTC is inhibiting efforts to reorganise and bring effective control to the whole public transport sector.

1.3.3- the major reason for deploying public money in a service sector is to give a lead in cases where private money and skills would otherwise be lacking. This is not the case with public transport which is 80% provided by private operators. Since Government cannot effectively use its investment in an exemplary role it should withdraw from competition.

1.3.4- Government wishes to create impartial expertise in the demand for public transport and in the best means of satisfying that demand. This requires the unification of control under the Ministry of Transport which, freed of its participation in the PTC, can devise, market and monitor a comprehensive licensing/ franchise system for all public transport.

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1.3.4- Government regards continuing subsidization of the PTC as unjustifiable.

1.4 Differences Between the PTC and Other Privatization: The proposed privatization of the PTC differs substantially from any other exercises which the Government of Jordan is likely to undertake in pursuit of its general policy of placing service and utility operations in the private sector. The main difference is that the PTC does not have an effective monopoly of the public transport industry. Looking at other enterprises which are candidates for some degree of privatization - Telecommunications, the Royal Jordanian Airline - Alia, the Port of Aqaba for example - it is difficult to see how the provision of competitive services can follow privatization. Is there likely to be another airline, a competing telecoms service or a second set of port services? It is otherwise with the PTC. It has never enjoyed a monopoly. It was created by Government in 1975 by a temporary law (ratified in 1985) to take the place of small private bus group. Long before that however, and continuing to the present, Jordan's public transport demand was met predominantly by "servis" shared taxis operating on fixed routes.

The salient feature of Greater Amman's public transport services, is not the operational and financial failure of the PTC, but the survival and increasing prominence of Intermediate Public Transport (IPT) in the shape of Servis and recently, of minibuses.

1.5 Present Passenger Demand and Services: The approximate distributions of passengers among the various modes of transport in Greater Amman is shown in the following table:-

Mode	Total Fleet Registered	Total Seat Capacity	Daily Operating Vehicles	Average Seats Daily	Average Passengers Daily	% of Total Passengers
PTC Bus-Out-of-Town	101	5,050	86	4,300	31,000	19.8
PTC Bus - City	257	12,850	183	9,150	94,000	
Public Bus-other than PTC	98	4,900	69	3,450	41,000	6.5
20 - seat Minibuses (estimated figures)	75	1,500	68	1,360	27,000	4.2
Servis - Out-of-Town	1,623	8,160	998	4,990	94,000	15
Servis - City	2,632	13,060	1,880	9,400	344,000	54.5
Total	-	47,520	-	32,650	631,000	100%

(Source: PTC, Police Traffic Office, Comp. Development Plan, Working Memoranda —.)

Very Roughly then, Greater Amman's public transport system consists of 70% Servis, 20% PTC buses and 10% other buses and minibuses. Of the passenger trips made each day about 70% begin and end inside the municipality compared with 30% in Outer Amman. The total number of trips - 631,000 - is equivalent to approximately 0.6 trips per person over the whole area every day. It is interesting to note that per-capita ridership is at the same level both in the municipality and in outer Amman.

We have spent much time and effort establishing the "mix" of public transport from the meagre data available because it

is essential to establish a context for the privatization and sale of the PTC. We are asked to advise the best method of privatizing the PTC. If we merely considered the PTC in isolation we would be obliged to offer entirely pessimistic counsel. It does not matter whether the PTC is publicly or privately owned. Unless its operational context is changed the PTC will lose more and more money. Its debts as well as its operational losses will have to be made good by Government and, as a final touch, it will within 3 years require another massive capital injection to purchase 200 new buses so that it can continue to lose at a faster rate.

The implications of the modal mix are in keeping with experience over most of the developing world. The creation of the PTC was an attempt to introduce a monopoly bus company into an area where strong indigenous intermediate public transport already existed in the form of shared taxis. It is an almost irresistible ambition of governments to emulate the impressive vehicles and time-tabled operations of bus monopolies in industrial countries. Unfortunately those who market such concepts usually omit to mention the inevitability of inefficiency, and therefore of subsidy, implicit in the monopoly operation of large specialist vehicles.. Where there are already local operators using small production line vehicles the large bus can never win. The orange taxis of Teheran, the jeepneys of Manila, the minibuses of Bangkok and Jakarta to name but a few examples all proved too strongly entrenched, too profitable and too supportive of massive employment to be replaced by systems of large buses.

In Amman also, despite a worsening deal for the servis operators', insistence upon gasoline engines, increasing licence-fee and second-choice routes, the servis survive while the PTC is, by commercial standards, bankrupt. Yet servis licences are not all taken up and, gradually, as

the vehicles are finally scrapped they will not be replaced because the operating conditions do not allow servis owners a cash-flow geared to replacement. This is a far more serious problem for the Government than the survival of the PTC in private hands. The Servis operations affects 70% of the travelling public and over 5,000 jobs or livelihoods.

1.6 Contribution of Other Buses: Within the area of Greater Amman plus the 5 outside centres linked to it there is an estimated mixed private fleet of 173 large buses and mini-buses which together account for 68,000 trips a day - more than twice the PTC's "country" carryings. It is therefore logical to accord these operators at least the same attention as the PTC. Even at existing fare-levels they are developing positive cash-flow of a volume which permits both depreciation and profit. In respect of detailed performance figures readers are referred to Working Memoranda 3 (1 to 5).
If there is to be a unified agency dealing with the control of all public transport in Greater Amman (or Jordan) one of its first tasks must be to refine and verify the modal mix and estimated performance figures presented in this report.

Chapter 2.

The PTC: An Operational Assessment

1. Purpose of the Assessment: If the PTC is to be privatised it is important that Government should know exactly what it is selling. What are the PTC's assets and how is the PTC using them and its personnel? Is it profitable or unprofitable? If unprofitable can it be expected to achieve profit with its present operational system? Can its transfer to private ownership achieve commercial viability? If so, at what cost?

Clearly, the transfer of a bus company from public to private ownership achieves nothing as an isolated act. It is merely a change of legal status. If other more practical changes need to be made, then Government has to distinguish those which depend upon its administration of public transport, from those which are the responsibility of the new, private owners of the PTC.

The PTC has no effective monopoly of any public transport routes. All it has is partial protection against other operators of large buses inside Amman Municipality. This being the case, Government which is the vendor of the PTC as well as the authority for all public transport in the Kingdom, is selling a company which is already in a competitive situation. There is no practical or acceptable method of re-creating the PTC as a monopoly. Government cannot contemplate removing the PTC's competitors because they carry more passengers and provide more jobs than the PTC.

The procedural options open to Government for the sale of the PTC and its transition to the private sector are discussed and evaluated later (Cap7). The choice of procedure is a matter of considerable sensitivity. It is impossible to consider the

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procedural options properly without understanding fully the relative importance and performance of the PTC and the other modes of transport with which it competes.

2. Basic Legal Considerations: Before proceeding to the detailed assessment of the PTC we should consider its legal position. It was established by Temporary Law 21 of 1975 and confirmed by Law 19 of 1985. In effect this law gives (or purports to give) the PTC a monopoly of bus transport inside the municipality of Amman. Elsewhere the PTC has to receive the approval of the Council of Ministers before it can operate new routes. The law also prohibits other operators from competing with the PTC in areas where it has been permitted to operate. These provisions have been unenforceable and ignored in several cases. The public transport requirement has to be met and Government has been obliged to grant licences to servis, large-buses and minibuses because the PTC has been unable to expand without direct Government financial support.

This and other points effecting legislation are discussed in chapter 5A . The point to be made in the present context is that the PTC is by no means a monopoly anywhere but in Amman municipality. Even there, in practical terms, it is one of several competing modes of transport.

3. The PTC's Asse ts: It is particularly important that the market value of the assets be established on a reasonable basis. We have not been involved in the calculation of asset-value. Instead an inter-departmental committee was charged with this part of the work. The committee's findings are summarised at annexure.

Government's investment in the PTC since its formation in 1975 has been substantial. It has loaned or guaranteed all the funding for bus and initial spares purchasing, paid for the construction and equipment of a large new headquarters and depot, and accepted responsibility for the PTC's debt-servicing. There is a tendency to expect the sale of the PTC to private investors to recoup Government's investment less depreciation. This will happen if Government effectively sells to itself; that is to a new company which Government controls through ownership of shares by a government agency or surrogate. If however Government places the PTC's equity on the market, the assets can be expected to be marked down in negotiation or share-flotation. Intending private operators will take a hard view of bus values because of the depressed state of the (world). market for large used buses. They will also be reluctant to meet the value placed on the HQ/Depot buildings because of their location. This involves the intending private PTC operator in at least 5% dead kilometrage which he can avoid by activating cheap overnight bus-parks closer to route-terminals or by using the terminals themselves.

On the other hand the probability is that the private PTC's asset value will become an integral part of Government's longer-term aim to control private sector transport. This will be more fully explained in chapter 5 'Administrative Control". It is sufficient to predict here that, if profit calculated as a percentage of assets employed becomes a control measure, then Government increases its chances of negotiating a good price for assets.

4. The PTC in Competition: We adjusted our researches to an area slightly larger than Greater Amman. The map* shows Salt Madaba, Queen Alia Airport, Zarqa and Bak'aa all of which are major generators of commuter-style traffic to central Amman.

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* to be supplied

chapter 2.

We are not concerned here with any internal public transport required in those places; but their links with Amman add about 50,000 passenger trips to demand in the area.

The demand within Greater Amman is derived from a population of 1,115,000 resident in the area plus a substantial contribution from demand between Amman and Salt, Bak'aa Zarqa, the Airport and Madaba. Allowing a minimum of 50,000 trips to the inter-town factor there are 580,000 trips a day attributable to the resident popualtion - almost exactly 0.5 trips per person. There is no completely satisfactory way of translating population figures into transport demand. The highest per-capita demands known are in the Far East with densely populated cities like Hong,Kong , Manila, and Singapore registering 1.4 trips per head of population per day. That excludes car and taxi trips. In many South and Central American cities and the Caribbean the demand exceeds 1 trip per day per person. In Europe the mainly public sector companies offer fewer services and seldom attract more 0.6 trips per person. It is reasonable to predict that fully effective public transport in Greater Amman would attract not less than 0.8 trips per person, or about 1 million single trips a day including inter-urban trips to and from the 5 centres mentioned.

Against this measure of satisfied and latent demand it is not surprising that the PTC, with 358 more-or-less effective buses, cannot cope and that other modes flourish in competition with the PTC. The relatively crude estimates "in Ch. 1" show the mixture of public transport modes now operating in the area with which we are concerned.

5. PTC Routes: The PTC management's attitude to an unworkable route network is one of resignation. It sees itself running a long-term holding operation in circumstances which give no opportunity for the exercise of professional skills.

The PTC was created to operate large buses. The area in which it has protection from large bus competition is Amman municipality. We have demonstrated the size of demand/ supply situation in Chap 1. The very high carryings of servis and (with exceptions) the low performance of the PTC reflects the nature of the terrain. Much of Amman is unsuitable for large buses and the PTC has not devised the sort of routes which can absorb its fleet profitably.. If we examine its profitable routes (WP 2.4) we find that it makes its most impressive return running a 3 Km route from Wahdat camp to Downtown. Its routes from Downtown to the University are successful. Its long distance routes to Zarqa, Bak'aa, Salt, Madaba and Queen Alia Airport all lose although we were told that they were profitable.

On many routes where the PTC employs enough buses to give a good frequency it does not attract passengers yet the servis and other buses operate profitably. We have found it difficult to obtain a true picture of PTC route performance and were obliged to examine routes for a day (Sunday November 16) and subsequently to tabulate operational results for that day from detailed analysis of the route log-cards.

It is reasonable to expect the Traffic Department of a bus company to produce the detailed analysis of a day's performance as a matter of routine work within 48 hours. The PTC keeps no such record. What it does keep meticulously is the record of the day's takings. This is produced daily by the Finance Department. Unfortunately the bus cash-boxes are collected between 2 pm and 6 pm each day so that the day's takings refer to parts of 2 separate operating days.

The results of our researches are in working memoranda series 2. The reader will observe that, on average 269 buses are in daily operation and not 336 as scheduled by PTC Traffic controllers. This daily average is verified by the cash-box records.

As general commentary on the PTC route performance it is never sensible to deploy large buses in such small numbers that the frequency is less than 1 in 15 minutes. The apparent success of 1 and 2 buses on routes shown in Table 2.4 are either misrecorded (meaning there were in fact more buses) or, if genuine, indicate that the people of the area concerned are desperate for public transport.

The student of the PTC has to wade through inaccuracies. We had accepted the correctness of the Comprehensive Development Plan (CDP) route-map with lists of terminals. Detailed examination revealed that the routes in many cases use other terminals and the paths followed are incorrectly shown. The CDP obtained its route descriptions from the PTC.

As an example of a poor PTC route consider Route 56 linking Amman with Bak'aa Camp. All 4 public transport modes are present in competition on this route and all except the PTC are profitable. The reason is that the PTC, instead of running the bus via Sport City direct to Downtown, bends the route along "no-passenger" roads (Abdul Minem Riyadh and Ali Bin Abi Taleb). Few Bak'aa passengers opt for the PTC route. The private buses follow main desire lines and save passengers changing vehicles time and money .

Just under a quarter of the operational fleet is devoted to the Ruseifa/Zarqa/Yajouz routes. Although the Kms are high the per-bus performance is poor - an average 5½

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return trips a day. Five (5) buses are on daily assignment to the Refinery which should hire private buses. The competition is stiff. There are 600 servis, at least 54 large buses and 16 minibuses all of which operate at a profit. The Zarqa routes are the only inter-urban servis routes currently subject to restriction of numbers. The unpleasant truth for the PTC is that it cannot work its buses hard enough to make a profit. In commercial terms the PTC is not a serious operator. There is no pressure either of supervision or incentive to ensure the scheduled number of trips.

What would be considered serious defects if they were viewed in the light of tightly controlled operations seem amusing peccadilloes in the context of the PTC. Route 41 D Police Housing runs but collects no fares. There are no concessionary fares on the PTC except for PTC personnel but tradition has it that the Police do not pay. On the day of our detailed examination Route 33 to Al Nadif did not operate. No buses appeared on the record. Yet revenue was recorded, possibly from the preceding evening. The following paragraphs offer further commentary on PTC operation and route performance:

Lack of through - routes: It is virtually impossible to make a single trip from one side of Amman to another. The PTC has fixed its routes on a radial basis using terminals in downtown streets and bus-parks. There is potential for linking existing routes to make diametric trips possible. This of course would necessitate a departure from flat fares.

Terminals and Frequency: The dependence of large buses on terminals is notorious. Particularly in downtown areas and business districts, terminals are irrelevant to passenger demand and can be a positive nuisance. In downtown Amman no terminals are required, merely stops where buses can pick up passengers. The area is a mess at present with very poor

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traffic control. It is however almost ideally designed for continuous road-side stopping and no terminals. The frequency of the PTC's buses and the servis are in practice dictated by the speed at which they fill up when they reach the head of the line as in the Raghadan terminals. Traffic priorities in the downtown area are back to front. Private cars and call-taxis should be parked off-street leaving buses and servis free to circulate. At least half the PTC passengers in this area have 1 Km to walk to the terminal.

With the linking of short-routes and less dependence on terminals the frequency of buses will greatly increase. It is possible all over Greater Amman to achieve perceived continuity/no waiting (pcnw). The frequency needed for pcnw is a bus every 8 to 10 minutes. Such operations do not require time tables because the operator can state his service offer e.g as "every 5 to 7 minutes". The absence of time-tables with the present PTC operation will therefore help privatization.

Control and Co-Ordination: There are 8 executives in the PTC; 9 with the Stores Manager. In a private company of this size there would be a Chief Executive and 3 others responsible for Operations with Marketing, Engineering and Finance. The Chief Executive would want a print-out of a single day's operations showing route-trips scheduled and performed as well as revenue predicted and achieved by the middle of the following day. Similarly he would want a workshop statement of the buse operational, buses for repair and major servicing and buses non-operational for mechanical reasons. The Financial Controller would himself contribute the revenue figures.

The PTC already allocates the same two drivers always to the same bus and the bus always to the same route. The private operator would retain this and use it as detailed performance record for individual buses and personnel. There

would be no question of information not being available. Each executive would be fully reponsible for his own department and for the cost of its operation. The Financial Controller would have a specific responsibility for centralizing information and for satisfying e.g. the Transit Authority's legitimate requests for performance data. At the moment there is little effective delegation of responsibility and an almost total absence of dependable performance data.

Engineering and Technical Services: The central depot facilities are reasonably effective in keeping buses servicable but there is a lack of service records.bus by bus and some defects which are inexcusable. One of these is the"failure" of almost all odometers so that kilometrage has to be estimated and 4,000 Km service intervals guessed. At first sight the technical side of the PTC (with complementary store-keeping) appears to be working efficiently and army-style. Closer examination leads to frustration. There is the same lack of factual records and bus-history that is encountered on the operational side. The lack of odometers means that Kms run per day or per year by individual buses cannot be checked. The only guide is the log for the route. We found considerable difficulty in calculating route/Kms performed and matching these to reasonable annual per-bus running time and expenditure on diesel. Working memorandum 2.3 summarizes our calculation. We have found that each servicable bus on average runs 73,000 Kms a year. The French Energy Study (Maitrise de L'Energie) and the National Transport Study both assumed 50,000 Kms a year for bus performance. Our estimate of diesel consumption at 2.375 Kms a litre average per bus accords well however with the French assessment. Undoubtedly the recommendations in the French report would produce economy in fuel-use for little expense in equipment. First however must come the maintenance of odometers and full bus service records.

Again there is no indiction of overall responsibility for technical services as an integral part of bus availability and operation. Our conclusion is that a private PTC would prune Engineering to about 100 personnel.

Preventive maintenance and re-fuelling needs re-arrangement. The PTC has no arrangements for re-fuelling anywhere except at the central depot. Buses leave the longer routes to go and re-fuel often incurring 30 dead Kms in the process. A private PTC operator would undoubtedly make it possible to re-fuel more conveniently. He would also make much more use of the old Marka and South depots to store buses and carry out preventive maintenance.

Finally Engineering runs no night-shift. The Depot closes when the last buses are in at 21:30 opening again at 05:30 when the day's operational shifts starts. Clearly there has to be some overlap for effective preventive maintenance and incidentally the collection the day's takings.

Financial Control: The Finance department of the PTC exercises an effective internal audit and recording function but it has no remit to enforce budgeted operational targets. In private hands the authority and independent responsibility of the Financial Controller would be geared to agneed performance targets. Some of the standard performance indicators are presented in Chap. 4 as fils per km for costs and revenue. The day-by-day achievement of those indictors is the key to a cost-effective, profitable company.

See also working memorandum 2(1 to 6)

TABLE 2.1

PTC STAFFING BY DEPARTMENT

A. STAFF BY MAJOR DEPARTMENT

ADMINISTRATION	71
TECHNICAL	281
OPERATIONS:	
DRIVERS	625
OTHERS	228
TOTAL	1,205

B. MANAGEMENT STAFFING BY CATEGORY

GENERAL MANAGER	1
TECHNICAL ASSISTANT TO GENERAL MANAGER	1
TECHNICAL MANAGER	1
FINANCE MANAGER	1
PLANNING MANAGER	1
ADMINISTRATION MANAGER	1
SUPPLY MANAGER	1
OPERATIONS MANAGERS	2

Chapter 3

Servis, Non PTC Buses and Minibuses

3.1 General History: The shared taxi is the Middle East's indigenous contribution to intermediate public transport (IPT). It is now found all over the world in various forms. Some of the best known are:-

- the orange taxis of Teheran
- the sherut in Palestine
- the pesero in Mexico city
- the por puesto in Puerto Rico
- the rickshaw of India/Pakistan
- the trishaw of Indonesia

Wherever capital is scarce and the economy developing individuals or groups buy the cheapest vehicle possible and sell seat-kilometers to those wishing a form of transport other than walking or cycling. In parts of the USA and Britain the shared-taxi has been re-introduced as part of the process of de-regulating and privatizing public transport.

Many governments have attempted to replace IPT, particularly shared taxis and small minibuses, by large buses in public ownership, All have been unsuccessful. The shared-taxi is too cheap to run and too much part of street-life to be beaten by a mode of transport as inflexible as the large bus. It is often successfully replaced by minibuses.

3.2 The Servis: The Amman servis have been operating for over 20 years. For the past 10 years at least the government has been trying to get rid of them without actually ordering their removal. The formation of the PTC was a misplaced step in that direction. The number and operating performance of servis in Greater Amman are described in chapter 1 and in Table 3.1 . Outside that area they are not so significant, their role having been largely taken over by large Japanese tour-buses.

3.3 Other Public Buses and Tour Buses: There are said (MOT) to be 1800 public buses of less than 25 seats registered in Jordan. We have estimated that 75 are operating in competition with the PTC. No firm data is available on these tour-buses. There could be as many private tour buses operated by schools, corporation etc. Virtually all the Japanese buses have diesel engines.

Elsewhere in Jordan tour buses are already established as the prime mode. Large public buses are used successfully on the longer inter-town routes essentially as express buses, but cannot compete with the 21-seat bus as a stage-carriage vehicle.

3.4 Operating Characteristics: Table 3.1 shows the cost/revenue picture for the PTC and the other 2 modes in fils per kilometer. What it does not show is the extra trips performed by a properly incentived minibus driver. On stage-carriage work a 21-seat bus covers its route 25% to 30% faster than a large bus. In table 3.1 the best servis conditions are shown, i.e the owner driver, and no depreciation is inserted under costs because the servis are almost all totally written down.

3.5 Given Government's recognition that something must be done to up-grade servis operation, one obvious possibility is to create, first the routes and then the confidence of servis operators in Government's good-will so that the servis operators find it worth-while buying more appropriate vehicles.

Taking into account the physical constraints of the jebel with steep inclines and often narrow roads as well as the need to preserve a high frequency service the requirement appears to be for a 10 seat minibus designed for urban transit. This would have the advantage of displacing no jobs. That and the switch to diesel will be sufficient persuasion to change vehicles.

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It should be expected that 10 seat minibuses will work 2 shifts a day provided that the Authority offers them properly designed routes. They will carry more passengers than the existing servis.because they will be specifically designed for public operation.

See also working memorandum 3(1 to 5).

Table 3.1

Comparative Operating Costs and Revenue per Vehicle/Kilometer
(In Fils)

Item	Modes			
	PTC	Other Public Buses	Minibuses (21 seat)	Servis
Personnel	81.0	66.6	32.0	23.2
[redacted]O.L.	32.1	32.1	14.3	33.3
Tires	3.7	3.7	5.9	6.2
Service/Repairs	12.6	12.6	2.0	4.9
Insurance	1.3	1.3	1.3	0.5
Administration	13.6	4.7	2.7	N/A
Depreciation	25.8	19.6	9.0	N/A
Total Cost	170.1	140.6	67.2	68.1
Revenue	151.6	183.0	96.0	91.6

Sources: PTC Data Summaries, Servis Interviews, and Consultant Files

Chapter 4

The PTC In Private Ownership

4.1 Background: Assuming that the PTC is sold clear of indebtedness it is nevertheless a company which, with its current pace and method of operation, makes an annual loss of about JD 550,000 Its chances of turning that situation round into profitable operation while remaining on its present routes are negligible.

The revision of routes has been agreed and a profitable route network should be ready for the government to market to all transport operators by April 1987. All existing routes for all modes go into the melting-pot and what will emerge is a much smaller number of generally longer routes of which the PTC will receive a share on essentially the same terms as other groups of servis and public bus operators. It should be acknowledged that the PTC with 300 or so serviceable buses will be the largest single operating unit, and that it will have to receive special consideration in the allocation of a share of inner Amman routes. In a perfect competition the PTC which has only large buses would find itself hopelessly disadvantaged against servis (particularly if they convert quickly to small minibuses) and against the operators of 21-seat coasters.

Part of the task of the suggested Public Transport Authority will undoubtedly be to ensure that the new PTC has a reasonable selection of routes on which large buses can operate profitable without unfairly penalizing the fare-payer. Thereafter, if the PTC does not perform its contract with the Authority, it will lose its routes to a competitor.

4.2 Private Competition: This report is not concerned with laying out a successful modus operandi for a private company but certain observations will help to prepare Government for a likely pattern of commercial events.

The basic task before the private PTC is to cut down operating costs and increase the number of passengers carried. It has to aim at operating 300 buses a day within a budget that allows it about 25% excess of revenue over expenditure if it is to stay in business and replace its fleet in phased steps. All other operators will have the same objectives.

4.3 Personnel: The private PTC will be bound to reduce personnel. The 1205 now employed will be reduced to about 900 including still roughly the same number of drivers (625).

Operations Staff: The private PTC will dispense with most of the control staff now employed. New driver contracts will pay better but on results. Drivers will need little end-of-route supervision because terminals will not be a significant operational factor.

The supervisory staff will check mainly that drivers perform the whole route. The driver will log his journeys against a working odometer and management will have a triple check on performance- the driver's log, the engineer's bus histories and the farebox receipts.

Many older drivers are likely to retire rather than have their life-style upset. Minor control staff will probably have the chance to retrain as drivers.

Engineering Staff: As with drivers the workshop personnel are competent individuals and turn out good work. They should; they have an up to date depot designed for a 500 bus fleet. In crude terms they have the spare capacity to maintain 500 buses or more. A private operator will insist that the workshop is profitable. If he cannot find other buses to service and repair he will reduce personnel by at least a third.

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A private operator will not tolerate the absence of individual bus records and of odometers (Km records). Nor will he permit service intervals to be guessed and the majority of work to be done after faults appear.

A private operator will use existing staff in rotation to form a night-shift. All buses are garaged by 9.30 pm, probably half of them by 8 pm.

Clerical and Accounts Staff: It is likely that personnel in stores, accounts and administration would be greatly reduced. Cash-tanks will be emptied at the depot or sub-depots at the end of each day and not, as now, between 2 pm and 6 pm while in service.

Methods: All personnel savings reduce costs but will be balanced by incentive payments. All in all the private PTC will aim to get its cost down to at least the existing private operator's level.. (See table 3.1) that is 140 fils per km instead of 170.

The indicators in that table are under daily observation route by route and, periodically, bus by bus. Buses are already dedicated to a route on a permanent basis as are 2 drivers to each numbered bus - something which european operators rarely achieve. Incentives are therefore easy to introduce.

The operator will insist that each bus in operation is capable of achieving about 300 days a year in service. If not he will sell or scrap it. Routes will be operated with a minimum of lay-over time to achieve as many trips as possible.

Above all the private PTC will use its size and the potential demand to increase passengers carried. If it is found that smaller buses are more profitable it will switch to purpose built 20 to 30 seat buses which it can either assemble in house or buy cheaply in quantity. It will combine planning, marketing and operations and demand competitive practice.

Management: A hierarchy for the privately operated PTC is at figure 4. There are only 3 functions in bus management- Operations, Engineering and Finance. The only full executives employed will be for those 3 plus a chief Executive who will demand that full daily information from all 3 be co-ordinated and that over-spending or under-producing out of line with agneed targets be remedied. The management will use individual route-performance as its day-to-day measure. Records and accounts will be computerized for quick access.

Depots: management will reactivate and increase the use of sub-depots as opposed to the main depot. He will make commercial arrangements for refuelling.

Forecast: There is no reason why the private PTC cannot perform as well as existing operators of large buses.

Chapter 5

Administrative Requirements and Route Revision

5.1 Control Of The Private Sector: The privatization of the PTC, no matter how accomplished, makes the whole of Jordan's public passenger transport dependent on private operators. Its control and policy direction however will remain with Government and must be exercised consistently, expertly and effectively. It is recognised by most of our interlocutors that this will require a permanent unified agency which will survive political change. This chapter suggests practical measures to accomplish this.

5.2 Information: At the moment there is no system of information which can provide accurate data on Greater Amman's public transport. Estimates in this report had to be pieced together from a miscellany of statistics and surveys none of which are 100% reliable or up-to-date except for those drawn from the Comprehensive Development Plan done for the Municipality. Good information may not guarantee a control agency's success but it is certain that success is impossible without it.

We suggest that the factual and estimated data presented in this report be adopted and verified so that the responsible authority knows precisely the composition, location and contribution of all modes of public trasnport.

This report is confined to Greater Amman plus the links with Salt, Bak'aa, Zarqa, Queen Alia Airport and Madaba. There is little effort to extend the information system to the whole of Jordan. It will save time and improve access to specific information if all public transport data is processed by the agency's micro-computer.

5.3 Route Revision: The key to the effective reorganization and future control of public transport is the development of a new route-network for all modes of transport in Greater Amman. To do this properly requires close working co-operation between the consultants and counter part staff from an embryo Transport Authority. In the assessment of the PTC (Chap. 2) there are indictions of the weakness of the PTC's route system. The same criticism applies to servis routes in the municipality. Bus, minibus and servis routes outside Amman are subject to no limit on numbers operating with the exception of Zarqa-Amman. They are probably nearer to a balanced supply-demand situation than Amman routes.

5.4 Expertize: The design of routes is an excellent means of a transport authority acquiring expertize. It requires the development- of detailed numerical data along precise geographical alignments. More than that, the authority has to satisfy operators and public alike that its routes will adequately serve the one and reward the other. Almost all communities in Greater Amman can be incorporated into routes which are profitable overall. There will be fewer but longer routes than those now existing. Each route will be allocated a seat requirement based on a frequency considered acceptable to the public. It is probable that all routes will achieve pcnw (perceived continuity/no waiting) which will make detailed time-tables unnecessary.

The authority has to "sell" these routes to operators, not just to large-bus owners like the PTC but to servis and minibus owners as well. An except the smallest communities will have a choice of competitive operators. Where an operator like the private PTC is allocated 2 or more routes they will not be adjacent routes. In central Amman the intensity of travel demand is such that access to that demand will support the weaker demand outside Amman.

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In some cases the routes will only be operable by combined network, will only be operable by small vehicles. Narrow hilly streets will dictate this. The authority itself will dictate very little. It will offer its routes to legitimate groups of operators or companies probably by packaging selections of routes for negotiated bidding.

5.5 A Unified Authority: Under current arrangements these is no single ministry or agency responsible for public transport. The Ministry of Transport has two functions: the Minister is ex officio chairman of the board of the PTC and his ministry fixes fares. The Ministry of the Interior provides a Licensing Committee which may grant licences for servis, call-taxis, Public buses and minibuses. The licences isssued in some ways reflect demand. For example there is no difficulty in obtaining a public bus licence to operate outside Amman-Zarqa. Since the servis licences in Amman are not all taken up, this too can be taken as an indiction that demand is met.

The physical processing of public vehicle licensing is a Police responsibility. The Police Licensing Office registers all vehicles, licenses them by category and collects fees. The Police Traffic Office is the "permit" arm of the Ministry of Interior's Licensing Committee. Records are divided between the two offices and are manual. Apart from these arrangements there is no control of public transport.

5.6 Functions of A. Transport Authority: An effective Authority will perform the following functions:-

6.6.1- The registration, licensing and supervision of all public passenger vehicles. This should include all forms of bus, minibus, taxi and hire-car from first registration in Jordan to route-allocation in Amman or elsewhere;

5.6.2- the planning of routes and determination of levels of service on each route-passenger-seats to be offered by the operator per hour;

5.6.3- the allocation of routes to operators so that the offer of seats is achieved competitively and the operators pay a reasonable return to the road-network;

5.6.4- ensuring the safety of the public by vehicle type approval and enforcement of construction and-use regulations, half yearly mechanical inspection;

5.6.5- ensuring that the public pays reasonable fares, that operators adhere to fares agreed during route-allocation;

5.6.6- Monitoring of routes, operator's logs and accounts as necessary, passenger surveys etc;

5.6.7- siting and use of bus-stops and terminals on and off street.

5.7 Personnel: At Figure 6.1 is a Transport Authority hierarchy and suggested distribution of personnel. This can be offset by staff savings in the Police Licensing and Traffic Offices and the Ministry of the Interior and the Ministry of Transport.

5.8 Fees and Funding: The Transport Authority is self-financing from route-franchise fees. Exactly what those fees should be cannot be decided until the revised routes are ready and 'packaged' for the PTC and other private operators to take up-including Servis operators.

The fees determined represent a levy on profits from a valuable concession. Under a system of competitive route-franchising each operating group commits itself to the levy

when negotiating the franchise. The Authority can only fairly determine the amount of the franchise levy when it can forecast the cost/revenue of each route with reasonable accuracy. This forms part of the route revision.

5.9 Present fees for public passenger vehicles (ppr) are shown in Figure 6.2. They are unreasonable in a number of ways, notably the bias against diesel-powered vehicles, the small vehicle licence - plate charge and extremely low bus licence fees. If the government turns to route-based franchising as suggested the only additional fees for ppv should be a per-seat charge at a uniform rate.

5.10 Profit Control. A skillful Authority will avoid the problem of excessive profit to particular operators by arranging routes to contain "lean" and "fat" segments. Moreover Amman is still expanding and a route that is over-profitable may be extended, via negotiation, to include a new estate which will only gradually generate passengers.

Nevertheless the Authority should have the power to adjust an operator's profit or set a ceiling to it if that is essential. Again, as the Authority gathers experience, it will find that the threat of a profit control scheme will be sufficient to bring operators into line. Profit is commonly expressed as a percentage of assets employed. The Authority may use this measure to estimate the profitability of the re-designed routes for the PTC and others. If it is skillfully employed it obliges operators to keep proper accounts and to replace vehicles before they become fully written down.

Figure 6.1

Proposed Transport Authority

Chairman

1

Director General

1	1	1
Director of Planning	**Director of Administration**	**Director of Finance**
System Improvement	Route Definition	
Statistics	Franchise Allocation	PPV Licensing Office
Licensing Records	Monitoring Service Levels	Franschise Fees
Operators + Vehicles	Legal and Sanctions	Franchise Audit
Route Surveys	Public Relations	Internal Audit
Data Processing	Vehicle Safety	
1 Statistician	1 Chief Transport Inspector	1 Accountant
2 Programmers	6 Transport Inspectors	2 Cashiers
	4 Clerks/Typists	
General Office	4 P.As	
	1 Receptionist	
	2 Messengers	
	2 Drivers	

Figure 6.2

Existing Licensing Fees

Public Passenger Vehicles

Extracted from Licensing Law of 1986.

	Petrol	Diesel
5 Passengers including driver	10 JD	45 JD
6 Passengers including driver	15 "	60 "
7 to 8 " " "	20 "	80 "
Medium bus (up to 25 passengers) and conventional large bus	25 "	50 "
each extra passenger	JD 0.500 regardless petrol or diesel	

First Registration Fee	Petrol	Diesel
ALL P.P.V.	100 JD	300 JD
Plate Registration for small vehicles only	JD 200 a year	

Chapter 5A

Legal Requirements

5A.1 General: The report suggests a number of administrative changes apart from the creation of a new private-equity. Public Transport Corporation. The consultants were not required to propose a detailed legislative brief. The present chapter is more in the nature of a check-list or aide-memoire to the Ministry of Transport's legal advisors.

5.2 PTC:

5.2.1- It is important that no monopoly operational rights be stated or implied in the articles of incorporation of the new PTC. If they are they will almost certainly be unenforceable and tend to make Government look foolish.

Monopolistic rights for any mode will inhibit route design. The Private PTC can be offered a better deal once the combined all-mode routes have been reduced in number and made indivdually profitable

5.2.2- It is best to avoid any "special" clauses in the private PTC's articles of incorporation. Most private operators prefer the freedom offered by standard company law. Any intervention required by the Transport Authority will be covered by separate legislation embodying the Authority. It will be effective in respect of all public transport companies including the PTC.

5.2.3- It is assumed that the PTC Law of 1985 will be repealed in its entirety.

5.2.4- For all practical purposes the PTC will become just another private bus company. It will assist neither its sale nor its operation to make it different from other companies.

5.3 The Transport Authority: If it is accepted that Government can make no improvement of substance in the organization, quality and profitability of public transport without a permanent, expert, directing agency, then such an agency or "Authority" must be carefully described in legislation. It is possible that existing legislation partly covers the requirements. The Law of the Ministry of Transport articles 10 to 14 appears to provide powers which may be held to cover the creation of a Public Transport Authority but they have not been activated. These articles are probably not sufficiently specific. Article 16, referring to a Higher Council of Transport does not meet the requirement.

5.3.1- On behalf of Government (or the Ministry of Transport) a Public Transport Authority will from time to time need the following:-

- the responsiblity to determine the demand for public transport in the Kingdom or any part of it

- the responsibility to make whatever arrangements are necessary with other government departments and agencies as well as with private/companies individuals in order to meet the demand

- the responsibility to maintain adequate records of all public passenger vehicles (PPV) whether privately owned or by the state

- the power to determine the routes on which P.P.V. will run

- the power to award a route or routes to an operator or operators for a period or 5 years but with rights of renewal, all subject to specific conditions

- the power to require payment for the award of a public transport route or routes by way of a royalty, franchise fee, licence fee tendered bid or combination

- the power to control the number of ppv permitted to be licensed and to impose conditions of licensing: this to include all vehicles constructed for the carriage of fare- paying passengers and all other vehicles constructed for the carriage of 7 or more seated passengers.

- the power of approving, or refusing approval for, a specific type or types of ppv on the grounds of safety and the public interest

- the power to examine any ppv either by prior notice or en route to determine its fitness for use

- the power to remove a ppv from operation because it is structurally or mechanically unfit for service or because its seating or interior cleanliness is sub-standard or dirty

- the power to revoke individual ppv licences or an operator's licence or the grant of a route to an operator, on the grounds of criminal conduct, unsatisfactory vehicles, insufficient vehicles or repeated breaches of licensing conditions

- the power to set tariffs or to approve tariffs declared by operators

- the power (after appropriate consultation with other government agencies) to establish bus-stops, no-stopping areas, terminals and restrictions on roads to vehicles other than ppv or particular categories or ppv.

- the power to require any or all ppv operators to keep adequate records of vehicles owned and licensed, their mechanical condition, kilometers performed, regular servicing

- the power to require any or all ppv operators to record operational performance by route and by vehicle and for authorised officers of the Authority to inspect books, premises and maintenance arrangements

- the power to licence ppv drivers subject to testing and/or the verification of qualifications set by the Authority

5.4 The Public Transport Authority is required to publish an annual report with accounts covering all its activities in the year not later than 2 months after the close of the year.

Chapter 6

Benefits to Government From Effective Public Transport

6.1 Co-ordinated Measures: The privatization of the PTC provides a much needed stimulus to re-shape the whole public transport scene. It is worthwhile examining the arrangements suggested in this report to see what benefits they could bring to Government for its political, financial and administrative initiative.

6.2 Financial:

6.2.1- Government cuts its losses on the PTC. It recoups the majority of its capital expenditure (J.D. 5 million plus) and drops its commitment to subsidy - currently JD 1 million a year.

6.2.2- By rationalising registration and licensing fees and by introducing fees for the allocation of protected, profitable routes, Government greatly increases its revenue form public transport. The calculation and planning of this innovation forms part of the implementation of this report. The specialists' preliminary guidance is that each percentage point of gross revenue levied on operators for the new route-franchise will produce about JD 230,000 a year.

6.3 Social Benefits: Privatizing the PTC, upgrading the servis operation and expert intervention by way of profitable route design will improve the quality and increase the frequency/ availability of buses to the public without cost except the reasonable cost of fares. It is not anticipated that fares will need to rise generally although the flat-fare will give way to stage or zonal fares on longer routes.

6.4 Labour:- By attracting more passengers onto the total network it becomes possible to secure the same overall employment in the public transport industry and at better rates of pay. Any loss of jobs intially in the private PTC will be made good by the predicted change to smaller vehicles. In any case over 5,000 livelihoods dependent on servis are currently under pressure but will become secure.

6.5 Public Relations: Government's intervention in public transport in Jordan was for many years counter-productive. The large number of passengers in the Amman area are seen as being carried despite government's misplaced effort. That view will change provided that Goverment is willing to exchange 20% ownership of the industry for an expert control mechanism. The only condition of success is that the expertize must be flexible, independent and permanent. The changes envisaged would certainly put Jordan ahead of any other country in the Middle East with respect to public transport.

6.6 Ecological:_ The improvements in control and vehicle type suggested will signifantly reduce traffic and vehicle pollution. Looking ahead, the existence of a first rate public transport system is also the pre-requisite for the reduction of private-car and call-taxi movements.

CHAPTER 7

PTC Privatization: Procedural Options

7.1 General: Midway through the study the consultants were asked to comment, as an interim measure, on certain aspects of privatization procedure. The papers submitted are annexed as Working Memoranda 7.1 and 7.2. The present chapter resumes and repeats certain arguments and goes on to examine alternative methods and arrive at a preferred, balanced option.

7.2 Assumptions: Any procedure envisaged for the privatization of the PTC must start from a legislative first step which dissolves the present PTC and creates it afresh as a company with 100% of its equity owned initially by the State.

We have not been concerned with this legislative step. It is important to make sure that the new PTC is not stated as having specific monopoly rights. Government will ultimately wish to charge the new PTC for the right to operate certain routes. It will also charge other private operators fees for similar operating rights. See Cap. 5A Legal Requirements.

7.3 Objectives: Government's objectives must constantly be kept in mind and each option must be measured against its attainment of those objectives. In this context Government is insisting:

7.3.1- that public transport be entirely financed and supplied by the private sector;

7.3.2- that the quality of public transport is maintained by orderly competition;

7.3.3- that public transport be competitively priced to the passenger at the lowest tariffs compatible with reasonable profit to the operator;

7.3.4- that public transport be available to all communities;

7.3.5- that Government should exercise expert control of quality of service, safety and area-cover;

7.3.6- that expert Government control of a comprehensive system of public transport should be be funded from franchise fees levied on private operators.

7.4 Method A: The PTC's equity is held by the State for some months during which Government undertakes the complete revision of the structure of public transport. During this period of re-organisation no attempt is made to sell all or any of the PTC's equity.

The intention in Method A is to sell all the equity to the private sector once the structure is in place.

No changes are made to the operation of the PTC in this period because these could jeopardize a satisfactory sale to the private sector.

7.5 Government Commitment Under Method A: The reasoning behind this procedure is that it is impossible in present conditions to present the PTC as a company with any chance of making a profit.

Private operators capable of taking over the PTC exist in Jordan but they are aware of the difficulties experienced by the present company. To them the PTC is an inefficient loss-maker with 250 good buses, 100 more that will need heavy expenditure to give 3 years service, a well-equipped depot with an unnecessary office block both of which are in an unsuitable location. They also see over 300 surplus personnel many of whom will have to be 'carried' for a time at least.

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Government can do little at the moment to improve the sale-value of the PTC. It cannot offer tight management, a free hand with redundancy, better routes or higher fares. It cannot offer protection from competition in any effective way. The question for Government is - "Will 6 months make any difference to this situation?" The general impetus of this report is towards a package of legislative, administrative, technical and fiscal measures which together comprise a considerable change in Government's attitude towards public transport. This requires a unified transport authority which will plan and franchise a new network of routes for all modes of transport in controlled competition.

Method A favours a sale to investors who will wish to operate a medium-sized bus company, that is to become actively involved in making the PTC profitable. In brief we believe that this method gives the government a maximum of 6 months to:

- Legislate for the creation of a private PTC
- form a Transport Authority capable of very quickly forming expertize tempered by local sensitivity
- plan and implement a new route structure for all forms of public transport
- settling the new PTC, an upgraded servis system and other public bus and minibus operators in franchised competition on the new routes.

Timing: Six months is probably the longest time during which Government can announce its policies and plan their implementation without actually taking irrevocable action. Legislation may well take 3 months, the re-design of the route network and its acceptance by operators will take 3 to 4 months. The powers for Transport Authority to invite operators into deliberate but controlled competition would form part of the legislation. The training and preparation of the Authority's key staff will take 4 to 6 months of learning "on the job".

There is also the task of assuring operators and the public that Government's change of role and objective is real and disinterested. Government has to surrender its minor and embarrassing position as a transport operator while assuming the much more difficult task of administering a system of control which balances demand and supply, low fares and operating profit. It will require a sustained Public Relations exercise and a considerable display of firmness and expertize to convince the operators and the public that the present confused arrangements will be replaced by a unified order.

7.7 It will be appreciated that the future of the PTC is only 20% of the task in terms of importance but very much more than that in terms of demonstrating Government's will. It should be possible to offer the PTC's equity to institutions or operators or both at the end of the 6 months with some hope of achieving realistic sale terms. Preliminary negotiations could begin half-way through the period to enable Government to determine an institutional or operator preference or a division between the two.

7.8 Method B: In this case Government would immediately sell a substantial part of the new company's equity to private interests. Immediate sale would dictate institutional buyers, because private bus operators will be unwilling to participate with the government as co-shareholders. Nor will they pay anything more than a market price for the PTC's assets.

Government can probably orchestrate a buy-out or partial buy-out by a bank or pension fund without difficulty. But would this achieve any improvement in the PTC? There would be changes on the Board of Directors but no effective changes could be made to turn the PTC into a commercial, profit making

company unless the new financial stake-holders are in a majority and insist upon all the measures necessary. These are described in Chapter 4, and will take time and substantial changes in managerial style and personnel motivation to achieve. The time-scale described above for Method A still applies. The administrative changes still have to be made if public transport is to be improved and if the PTC is to have any real chance of commercial operation.

In our view immediate sale of equity in the PTC will commit Government to a particular type of share-holding and may limit the chances of overall improvement in public transport and in the PTC's operation. We believe that Government needs time to assimilate what needs to be done and that there is no immediate requirement to sell off equity in the PTC until the reaction of operators and the public have been assessed in the light of the route revision and the implementation of other changes. The most notable of these is the creation of a unified transport authority.

In brief Method B pre-empts a decision which should be taken by a government after it has developed expertize.

Method C: The only other real option available is the sale of the PTC in divided lots. This can only be a counsel of despair in the unlikely event that the PTC proves unsaleable as a whole. It can be disregarded as a serious option at this stage.

Working Memorandum 2.1

PTC Performance Nov. 16, 198

Route Number	Description of Terminals	Number of buses schedule	Buses in operations	Buses in Garage	Buses out/ other reasons	Number of Roundtrips performed	Route Roundtrip kms	Running kms on route	Dead kms on route (estimated)	Special Kms performed	Total Kms performed
1	Al Hashimi Janubi Raghadan	3	3			8 AM 8 PM	lo.4	166	60		226
2	Al Hashimi Shamali Raghadan	4	3	1	1 Bus-Univ. students	20 AM 22 PM	11	462	60	20	542
2 A	Zaghatit Abu Jesar Raghadan	5	4		1 Bus-Univ students	28 AM 32 PM	11.6	696	80	20	796
4	Hail Mazra Marka/Raghadan	1	½	½		6 AM 8 PM	19.1	276	20		287
6	Tarqhis Marka Raghadan	1	½		1 Bus-C.A. (6 hours)	3 AM 3 PM	17.7	106	20	120	246
6 A	Hail Wurana Marka/Raghadan	1	½	½		7 AM 0 PM	13	91	20		111
7;8	Mukheyem Hehin (Scheneller Raghadan	8	6	2	2 Trips Univ. of J. students	40 AM 38 PM	22.3	1739	20	80	1839
9	Zarqa Autostrad Autostrad Raghadan	36	24½	½	5 Buses/All Day JPR; Electricity ½ - Comm.	75 AM 68 PM	46.9	6707	750	1200	8657
10	Zarqa Yajouz Road University	10	8½	1½		26 AM 22 PM	54.2	2602	270		2872
10 A	Zarqa Yajouz Road University	2	1½	½		4 AM 3 PM	53.5	374	60		434
10 B	Zarqa Bak'aa	2	1	1		3 AM 3 PM	62	372	30		402
11	Zarqa Awajan Ruseifa/Raghadan	7	6½	½	1 Bus-3hrs At JPR	25 AM 15 PM	48.8	1952	210	60	2222
11 A	Ruseifa Jebel Shamali/Raghadan	9	10			50 AM 40 PM	48.2	4338	200		4538
12	Iskan El Amir Hashim/Raghadan	3	2	1		11 AM 12 PM	27.5	632	40		672
13	Polytechniq Marka Raghadan	5	5		1 student Trip	27 AM 29 PM	24.8	1388	100	30	1518

Route Number	Description of Terminals	Number of Buses schedule	Buses in operation	Buses in Garage	Buses out/ other reasons	Number of Roundtrips Performed	Route Roundtrip kms	Running kms on route	Dead kms on route (estimated)	Special kms performed	Total kms performed
14	Nadi Sebaq/ Salheit il Adel Raghadan	4	3½	½	1 bus to Comm.	33 AM 23 PM	16	896	80		976
16	El Nasir-Klaliel Raghadan	3	1½	1½	1 bus to comm.	16 AM 8 PM	12.5	300	40		340
16 A	El Nasr-Hail Alia Raghadan	3	2	1		16 AM 16 PM	13	416	40		456
17	El Nasr-Hail El Manara Raghadan	3	2½	½	1 bus to comm.	22 AM 16 PM	14.5	551	60		611
19	JebelTaj/Batu Saqf El Seil	4	4		1 trip to U.J.	31 AM 22 PM	12.5	787	80	30	897
20	Same as No. 14 (Countra-flow)	3	2½	½		20 AM 16 PM	12.5	450	60		510
21	El-Ashrafia Hail Arman Sara El Hobez	3	1½			6 AM 9PM	7	105	30		135
22	El Ashrafia Bartu/Umm Teina Shara El Hobez	2	1	1		11 AM 9 PM	7.6	152	15		167
23	El Wahdat Shara Merza	9	8	1		71 AM 78 PM	6	894	80		974
24	Sahab Saqf El Seil	8	7	1		34 AM 37 PM	27.1	1924	105		2029
24 A	Abu Alanda Shara El Hobez	2	1	1		9 AM 7 PM	28.2	451	15		466
25	Malia Housing Shara El Hobez	4	3½	½		19 Am 25 PM	18.9	809	60		869
26	El Quwesmah Saqf El Seil	4	3½	½		24 AM 25 PM	14.6	715	60		775

Route Number	Description of Terminals	Number of Buses schedule	Buses in operations	Buses in Garage	Buses out/ other reasons	Number of Roundtrips performed	Route Roundtrip kms	Running kms on route	Dead kms on route (estimated)	Special kms performed	Total kms Performed
27	El Quwesmah Saqf El Seil	4	3½	½		24 AM 25 PM	14.6	715	60		869
29	Khuraybet el Suq Saqf El Seil	5	2	3		12 AM 12 PM	19.2	460	30		775
31	Madaba/Shaki Saqf El Seil	12	11½	½		30 AM 34 PM	66	4224	120		4344
31 A	Madaba/Raby Saqf El Seil	4	3½	½		11 AM 11 PM	70	1540	40		1580
32	El Murikh Saqf El Seil	2	1½	½	1 Bus to Committee	19 AM 14 PM	6	198	20		218
33	Al Nadif Merza St.	2	0	2		- 0 -	10.3	-		-	- 0 -
34	Jebel Al Zohour El Hobez	4	3	1		25 AM 25 PM	10	500	30		530
35	Al Hugableen El Hobez	2	1	1		9 AM 6 PM	22	330	10		340
36	Marj El Hamam El Hobez	6	4½	1	½ Lost/ No Driver	23 AM 18 PM	30.2	1238	75		1313
37	Na'ur Rashid Tlia	4	4			17 AM 19 PM	32.2	1159	60		1219
38	Nazzal Badraq Rashid Tlia	4	3½	½		30 AM 37 PM	10	670	40		710
38 A	Al Akhdar Rashid Tlia	6	3½	2½		37 AM 27 PM	10.2	632	40		672
40	Abdoun El Hobez	4	1½	2½		12 AM 8 PM	18.7 18.7	374 374	20 20		394 394
41;41 A	Wadi El Sir; El Bayador Basman St.	10	8	2		41 AM 41 PM	25	2050	160		2210
41 B	Umm Summaq/7th Circle Basman St.	2	1	1		6 AM 6 PM	17.6	211	20		231
41 C	Engineering Housing 7th Circle Basman St.	2	1½	½		9 AM 12 PM	17	357	40		397

Route Number	Description of Terminals	No. of buses schedule	Buses in operations	Buses in Garage	Buses out/ other reasons	No. of Roundtrips performed	Roundtrip Kms	Total kms on route	Dead kms on route (estimated)	Special kms performed	Total kms performed
* 41 D	Police Housing 6th Circle / Basman Street	1	½	½		- O - AM 6 PM	16	96	20		116
41 H	Medical City 5th circle / Basman Street	3	4			22 AM 22 PM	25.3	1113	80		1193
48	Hussein Housing / King Ghazi St.	5	4¾	¾		27 AM 27 PM	19.3	1042	100		1142
52	Tlia Al Ali / King Ghazi	3	3			19 AM 18 PM	18.8	695	60		755
53	Jordan University / King Ghazi	13	7¾	5¼		47 AM 50 PM	19.5	1891	160		2051
53 A	Abu Nseir Housing, Jordan University / Basman Street	4	3	1	1 special Trip	16 AM 15 PM	* 40	1200	90	50	1340
54	Al Rashid Housing Jordan College / Basman St.	2	2			11 AM 13 PM	13	312	50		362
55	Suweileh / King Ghazi	7	6¾	¼		31 AM 27 PM	31	1798	175		1973
56	El Baq'aa Camp / Saqf El Seil	12	9½	2½	½ Shift short	34 AM 38 PM	45.4	3268	200		3468
57	Salt / Saqf El seil	8	8¾	¼		25 AM 27 PM	59.5	3094	180		3274
58	El Fuheis/Mahes / Saqf El Seil	3	1½	1½	5 PM	5 AM 5 PM	48.8	488	40		528
60	Arab College / Basman St.	3	2¼	¾		14 AM 11 PM	18.2	455	75		530
60 B	Sports City / Basman St.	5	2¾	2¼		16 AM 18 PM	18.5	629	75		704
60 C	Middle College / Basman St.	3	2½	½		9 AM 19 PM	28	784	75		859
60 D	Tabarbour / Basman ST.	5	2¾	2¼		15 AM 19 PM	31	1054	75		1129

* Non-revenue route

Route Number	Description of Terminals	Number of buses schedule	Buses in operations	Buses in Garage	Buses out/ other reasons	Number of Roundtrips performed	Route Roundtrip kms	Running kms on route	Dead kms on route (estimated)	Special kms performed	Total kms performed
61	Jebel Hussein Raghadan	3	3		2 trips- students	25 AM 22 PM	11	517	60	60	637
62	Mukheyeim Hussein Raghadan	3	1½	1½		14 AM 8 PM	10.7	235	40		275
63	Alnuzha Municipality Building	6	4	2		29 AM 31 PM	12.8	768	80		848
63 A	Al Qusoor/ Municip. Building	5	3½	1½	1 Bus to committee	32 AM 30 PM	15	930	80		1010
63 B	Circular/J. Hussein King Ghazi	4	4		2 Trips- students	27 AM 28 PM	18	990	80	60	1130
81	Queen Alia Airport	7	6½	½		19 AM 15 PM	81	2754	140		2894
A 1	Middle East Circle Raghadan	4	4			31 AM 28 PM	20	1180	40		1220
A 2	Abu Nseir/Abdali/ Raghadan	2	2			8 AM 8 PM	40	640	40		680
A 3	Jordan Univ. Raghadan	7	5½	1½		32 AM 41 PM	20	1460	120		1580
	Total	336	264¾	61½		1432 AM / 1389 PM		71,678	5,505	1,730	78, 913

W.M. 2.2 Passengers and Revenue By Routes

Route No.	Daily Average Passengers	Daily Average Revenue (JD)	Daily Average Veh/Kms	Revenue per Veh/kms	Profit or Loss per Veh/Kms
1	895	62.705	226	277	81
2, 2 A	2254	157.835	1338	117	(79)
4, 6, 6 A	1446	101.285	644	157	(39)
7, 8, 12	4120	288.407	2511	114	(56)
14	1447	101.199	976	103	(93)
19, 20	1422	99.545	897	110	(86)
21	2291	114.562	270	424	228
22	1499	104.930	167	628	432
23	12606	630.301	974	647	451
24	2366	283.989	2029	139	(57)
26	1621	162.101	869	186	(10)
24 A	526	52.661	466	113	(83)
29	1760	211.308	490	431	235
27	1676	117.381	775	151	(45)
32	574	40.190	218	184	(12)
33	1088	76.180	448	170	(26)
34	1609	112.691	530	212	16
36	2006	240.812	1313	183	(13)
35, 37	899	89.998	1559	57	(139)
38 A	3375	236.319	672	351	(155)
40	911	63.783	394	161	(35)
41, 41 A	4366	436.667	2210	197	1
41.B, C, D	3496	244.760	744	328	132

Route No.	Daily Average Pass.	Daily Average Rev. (JD)	Daily Average Veh/Kms	Revenue Per Veh/Kms	Profit/Loss Per Veh/Kilometres
41 H	1404	168.504	1193	141	(55)
48	2603	182.265	1142	159	(37)
52	1469	102.862	755	136	(60)
38	2252	157.641	710	222	26
53	8165	571.582	2051	278	82
60	3071	214.984	530	405	209
60 C; D	3299	230.989	1988	116	(80)
53 A	1109	133.191	1340	99	(97)
55	3402	340.268	1973	172	(24)
60 B	1809	126.664	704	179	(17)
61	580	29.018	637	45	(151)
62	497	24.871	275	90	(106)
63 B	1411	70.596	1130	62	(134)
56	3639	545.984	3468	157	(39)
57	2315	416.799	3274	127	(69)
58	421	75.952	528	143	(53)
81	775	387.610	2894	133	(63)
63A	6605	330.273	1010	327	131
A1; A3 *	2345	164.190	1704	96	(100)
A 2 *	1921	230.585	2040	113	143
9,10,10A 10 B	12330	1726.235	12365	149	(47)
11; 11 A	3464	415.748	6760	61	(135)
31; 31A	4223	844.623	5924	142	(54)
Total	123,362	11,596.995	75,115		

Source: Nine Month Revenue; Passenger Summary (Jan - Sept., 1986)
* PTC Daily Revenue Summary for Nov. 16, 1986

Working Memorandum 2.3- Bus Kms/PTC

Base:- 264 buses perform 79,000 Kms in a full operational day, an average of 300 Kms per bus:
The base is confirmed by PTC revenue figures and, specifically, by route-card checks on Sunday 16 November.

Buses and trips may be slightly exagerated. Dead Kms are certainly underestimated. No further adjustment merited.

79,000 Kms accepted as a reasonable estimate of fleet Kms per operational day.

Calculation of Bus/Year: There are c. 300 full operating days in a year. Fridays and holidays are estimated at 60% full day.

There are 3 months of school/university holidays during which 90% full operation is estimated.

This leads to an operational bus/year of 330 days. Total Kms are 330 days X 79,000 Kms, or, say, 26 million bus/Kms a year.

There are 358 usable buses each of which is taken to perform an average 73,000 Kms a year. Note that, as of 20th November, 28 buses were at the depot awaiting spares.

Diesel Consumption: Cost of diesel - JD 711,564 a year
Cost of diesel per liter JD 0.065
No. of litres consumed in year - 10,947,138
Bus Kms c 26 million a year
Bus Kms per litre average 2.375 Kms a litre

Bus Operating Days: Each of 358 buses is estimated to work on average 250 full operating days.

W.M. 2.4 PTC Routes Showing A Profit

Route No.	Round Trip Length Km	Route Name Scheduled Buses (16 Nov.)	PP/Day	Daily Rev JD	V/Km	Revenue Veh/Km	Profit fils/ Km
1	10.4	Al Hashemi Jenubi 3 Buses (3)	895	62.705	226	277	81
21	7	El Ashrafia/Hail Amman 3 buses (1½)	2291	114.562	270	424	228
22	7.6	El Ashrafia/Batu um Tini 2 buses (1)	1499	104.930	167	628	432
23	6	El Wahdat 9 buses (8)	12606	630.301	974	647	451
29	19.2	Kyrebit El Soukh 5 buses (2)	1760	211.308	490	431	235
34	10	Jebel Al Zohour 4 buses (3)	1609	112.691	530	212	16
41+41 A	25 break even	Wadi el Sir 10 buses (8)	4366	436.667	2210	197	1
41 B/C/D	17	7th Circle, Um Summa, Eng. Housing; Police Housing 5 buses (3½)	3496	244.760	744	328	132
38	10	Nazal Badraq 4 buses (3½)	2252	157.641	710	222	26
53	19.5	J. University 13 buses (8)	8165	571.582	2051	278	82
60	18.2	Arab College 3 buses (2½)	3071	214.984	530	405	
63 A	15	Al Qosour 5 buses (3½)	6605	330.273	1010	327	131

Source: PTC 9-Month Summary
* Buses in Operation Shown in Paranthasis ( )

W.M. 2.5 1986 PTC Cost and Revenue Profile
(Seven Month Period)

		JD
A.	Cost Items	
	1. Maintenance; Spare Parts	192,360
	2. Fuel; Oil	483,843
	3. Tires; Tubes	54,841
	4. Personnel Salaries	
	Drivers	771,687
	Bus Operation Staff	119,206
	Fare Box Collection	43,236
	Technical Department	259,648
	Administration	73,252
	5. Insurance	20,782
	6. Debt Service/Interest Payment	345,290
	7. Depreciation	
	Buses	286,932
	Building; Equipment	51,700
	Other	55,625
	8. Administrative Overhead	207,990
	Total Cost	2,974,128
B.	Revenue Items	
	1. City Routes	1,348,845
	2. Country Routes	715,303
	3. Special Trips	145,052
	4. Queen Alia Airport Route	70,475
	5. Advertising	10,060
	6. Other (Sale of scrap Parts, etc)	16,395
	7. Interest Income	5,100
	Total	2,311,230
C.	Net Profit/Loss	
	Net Loss	(662,898)

W.M. 2.6 1986 PTC Cost And Revenue Profile*

A.	**Cost Items**	
	1. Maintenance and Spare Parts	329,760
	2. Fuel and Oil	838,016
	3. Tires and Tubes	99,013
	4. Personnel Salaries	
	Drivers	1,322,892
	Operations Staff	209,353
	Fare Box Collectors	79,119
	Technical Department	445,110
	Administration	125,575
	5. Insurance	35,626
	6. Debt Service/Interest Payment	463,290
	7. Depreciation	
	Buses	491,883
	Building; Equipment	88,628
	Other	95,357
	8. Administrative Overhead	356,554
	Total Cost	4,965,176
B.	**Revenue Items**	
	1. City Routes	2,312,306
	2. Country Routes	1,226,236
	3. Special Trips	248,661
	4. Queen Alia Airport Route	120,814
	5. Advertising	17,246
	6. Other (Sale of Scrap Parts, etc.)	28,106
	7. Interest Income	8,742
		3,962,109
C.	Net Profit/Loss	
	Net Loss	1,003,067

* Annualized from PTC Seven-Month Statements

Working Memorandum 3.1

Number of Servis working on Capital's Lines
As of 2/11/1986

Name of Line	No. of Line	Terminal	Autho-rized Servis	Work-ing Servis	fees fils
Jabal Amman/Old Income Tax	1	Yazeed Bin Abu Sufian St.	100	41	60
Jabal Amman/Mutasem St.	1A	" " "	20	3	60
Jabal Amman/Mutraan St.	2	Basman St./ Sarsour entrance	105	102	60
Jabal Amman/Khurfan St.	2A	" " "	15	12	60
Jabal Amman/Fourth Circle	3	Basman St.	65	65	60
Jabal Weibdeh/Amaneh Muntazah	4	Khaiam St.	75	67	60
Jabal Weibdeh/Hai Alia	5	" "	40	9	60
Abdali Jamal Abed Naser Square	6	King Gazi St. Saghah Market	115	118	70
Al Abdali/Mujam'a Naqabat Al Mihanieh	6A	" " "	70	95	80
Third Circle Dakhlieh	6B	" " "	20	19	60
Al Abdali General Security Pump	7	" ". "	70	70	70
Jabal Al Hussein Jamal Abed Naser Square	8	Al Anbat St.	100	128	60
Al Hussein Sport City	8A	" " "	15	23	90
Al Abdali Al Da'irah	8B	Shabsough St. lower part	65	65	70
Jabal Al Hussein Al Frere	9	Beginning of Salah Deen St. Near Cinema Zahran	70	32	60
Al Hussein Camp	10	Amanet Al Asmeh Square	75	68	60
Jabal Al Nuzha	11	" " "	75	88	60

Name of Line	No. of Line	Terminal	Autho-rized Servis	Work-ing Servis	fees fils
Wadi Al Hadadeh	12	Amanet Asmeh Square	30	14	60
Jabal Al Qusour	13	" " "	60	48	60
Al Hashmi Al Shamali	14	" " "	50	51	85
Al Hashmi Al Shamali Al Zagateet	14A	" " "	20	27	90
" " " " Al Zahraa'	15	" " "	75	74	75
Al Hashmi Al Janoubi	16	" " "	25	4	75
Marka Al Shamalieh Hai Dubat	17	" " "	15	17	100
Marka Al Shamalieh Al Batariat	17A	" " "	120	125	110
Al Mahatta/Hai Dubat	17B	" " "	65	29	60
Marka Al Janoubieh/Racing Club	17C	" " "	25	27	85
Al Mahattah Hai Al Ma'aneih	17D	" " "	25	22	70
Marka Al Janoubieh/Haglan	17H	" " "	20	20	85
Marka Al Shamalieh Al Mazare'h	17O	" " "	20	49	100
Iskan Marka Al Jadid	17Z	" " "	10	14	100
Hai Prince Hasan Jabal Al Nasir	18	" " "	60	61	75
Hai Prince Hasan Al Janoubi	18A	" " "	10	11	85
Jabal Al Manarah	18B	" " "	10	10	90
Wadi Al Nasir	19	" " "	40	15	70
Al Wehdat-Mahatta Hospitals	20	Wakad entrance Yarid Pharmacy	40	43	60
Jabal Al Taj/Al Zohour St.	21	Amnet Asmeh square	40	39	60

60

Name of Line	No. of Line	Terminal	Autho-rized Servis	Work-ing Servis	fees fils
Jabal Al Taj/Al Hawouz	22	Amnet Asmeh Square	80	80	70
Jabal Al Joufeh/Taj St.	23	Beginning of Waqudi St. Akabh Market	60	36	60
Jabal Al Joufeh/Hai Drouz	23A	Waqudi St.	20	20	60
Jabal Al Joufeh/Camp	24	" "	45	43	60
Jabal Al Joufeh/Um Teneh	24A	" "	10	9	60
Al Ashrafieh/Hai Arman	25	Taliani St.	50	29	60
Al Ashrafieh/Barto St.	26	" "	90	67	60
Al Wahdat/Prince Hasan St.	27	" "	220	205	60
Al Wahdat/Iskan Al Quweismeh	27A	" "	25	24	85
Al Wahdat/Railway/Dababieh	27B	" "	15	12	75
Al Wahdat/Al Abdali Al Mubasher	27C	Al Wahdat/Opposite Al Shrafieh Police	100	20	110
Ra'as El Ein/Alkasarat	28	Qureish St.	60	60	60
Hai Nazal/Mosque	29	" "	65	84	60
Hai Nazal/Rifco	29A	" "	20	28	60
Jabal Al Nadif	31	ALtaliani St.	60	40	60
Jabal Al Mareikh	32	" "	40	12	60
Amman-Zarqa-Autostrad (a)	33	Amanet Asmeh Square	281	282	190
Amman-Zarqa-Ruseifa (a)	33A	" " "	281	281	190
Al Muhajreen-Akileh Hospital	35	Qureish St. Sanyo Company	40	41	60
Al Muhajreen Hai Quasieh	35A	" " "	5	9	30
Jabal Al Zohour	37	Qureish St.	30	26	75
Daheit Al Hussein . Iskan	38	Basman St.	30	32	90
Al Abdali-Zarqa-Autostrad (a)	39	Mujama' Safriat Al Shamal	50	22	270
Al Abdali-Alruseifa-Zarqa (a)	39A	" " "	50	7	270
Totals	61 routes		3577		3244

(a) Note that the Traffic Office includes Zarqa - Amman routes with city routes. In the text the correction is made and they are classified "out ot town". Source: Police Traffic Office (translated from the Arabic Original)

3.2 Working Memorandum: Servis Routes in City

There are 61 routes in Amman. We treat the 4 Zarqa routes as 'country' . According to Novermber 1986 Police figures

3224 servis are licensed

against

3577 servis authorized

On 18 routes servis exceed the authorized number.

Notable 'excesses' are:	Auth.- Licensed
Route 6 A Abdali	70 - 95
Route 8 Jabal Hussein	100 - 128
Route 8 A Sport City	15 - 23
Route 17 A Marka	120 - 125
Route 17.0 Marka	20 - 49
Route 29 Hai Nazal	65 - 84
Route 29 A Hai Nazal	20 - 28

Notable 'deficiencies' are:	
Routes 1 + 1A Jabel Amman	120 - 44
Route 5 Jabal Weibdeh	40 - 9
Route 9 Jabal Hussein	70 - 32
Route 12 Wadi Hadadeh	30 - 14
Route 13 Jabal Qosoor	60 - 48
Route 16 Al Hashmi Jenubi	25 - 4
Route 17 B Al Mahatta	65 - 29
Route 19 Wadi Al Nasir	40 - 15
Route 23 Jabel Joufeh	60 - 36
Route 25 Al Ashrafieh	50 - 29
Route 26 Al Ashrafieh	90 - 67
Route 27C AlWahdat/Abdali	100 - 20
Route 31 Jabel Al Nadif	60 - 40
Route 32 Jabal Mareikh	40 - 12
Route 39 Abdali - Zarqa	50 - 22
Route 39 A Abdali Zarqa	50 - 7

The success - failure of servis routes is a strong indicator in the redesign of routes in the Municipality.

Working Memorandum 3.3
City Servis: Costs/Revenue/Passengers

Because of the paucity of observed data on the servis, we have concentrated upon the servis from the operator's view point. The costs are ascertainable with reasonable accuracy per vehicle/kilometre. Revenue has to be assigned on the same basis.

Servis are roughly 50% owner-operated and 50% employee-drivers.

In respect of the employee-driver section their performance is estimated by the following methods:-

Methods of Driver-Contracting

Method 1) Driver shares net income with owner. In other words they share costs and revenue eqully. Their costs/revenue per full day are approximately:

Costs	JD	Revenue
Gasoline	5.400	162 kms a working day
Tyres/Maintenance	1.000	7 kms average return
Service + repairs	0.800	trip - ie 22 round
Insurance	0.080	trips at 9 passengers
Terminal Fee	0.050	average. Total 198
		passengers at average
		75 fils.

Total costs 7.330 Total revenue 14.850
Total profit on full day - JD 7.520
Half-share each driver/owner - JD 3.760

Method 2) The servis driver is paid JD 3 per day and the owner meets all costs. There is no incentive for the driver to do more than the minimum and the operating results are about the same as for method 3.

Method 3) Driver is paid JD 7 (3 for wages and 4 for petrol). The owner meets other costs. This method effectively restricts running to JD 4's worth of fuel per day- about 120 kms . The cost/revenue picture for the operator under Methods 2 + 3 is:

Costs	JD	Revenue
Driver	3.000	120 kms (ie JD4 on fuel)
Gasoline	4.000	gives average of
Ryres/Maintenance	1.000	22 return trips at
Service + Repair	0.800	9 passengers per return
Insurance	0.080	trip. at 75 fils average
Terminal fee	0.050	11.475
Total Expenses	8.930	Total revenue 11.475

Owners' profit JD 2.545 per full day. Average passengers for servis under methods 2 and 3 of driver muneration - 153.

The return is poor, so is the driver's pay. This bears out the hand-to-mouth nature of the servis industry. With this level of return the servis owner cannot hope to replace his worn-out vehicle. This is true even for method 1.

As regards the owner-operator (50% of the fleet) he is estimated to achieve the same result as under Method 1 because it is physically impossible to drive more than the 162 kms in a reasonable working day.

Passenger Estimate: Of the 1316 servis with employee drivers
One third will carry 198 pps/day
Two thirds will carry 153 pps/day.

Since they will be in operation 5 days out of 7 their aggregate passengrs per day are respectively 62,000 and 96,000.

In addition the other half of the fleet (1316) will carry 198 pps/say - 186,000.
The total City servis carryings in a full day are 344,000.

Working Memorandum 3.4

Out-of-Town Servis Routes Competing with PTC in Greater Amman

Source:

We have data from the police traffic office from their ledgers of servis in operation. Of the places tabulated below only the 4 routes to Zarqa are specially licensed and with a limit on the number of licences. The police figures are for servis which are described as "working".

*CPD figures for servis are not a prime part of the report. We have had to synthesize a "resonable picture" from data and discussion with the Syndicate for Public Taxis. Essentially the approach is to postulate the practical expectations of the servis operator. His expenses are greater on the out-of-town routes solely due to gasoline costs.

Typical daily costs for the Madaba route (66 km round-trip) are:

Gasoline	- JD	6.675
tyres, lube, maintenance	-	1.000
service/repair	-	0.800
insurance	-	0.080
terminal fee	-	0.050
Total	- JD	8.805

The servis start with 5 passengers from each terminal. Normally they will get no other passengers en route on the long trips and we have assumed that this is the case overall. We may slightly under-estimate trips as a result but not by more than 10% overall.

We have assumed JD 15 a day as the income achievable by an out-of-town servis in a full day's operation. The Madaba costs above show that the operator has to drive 330 kms in the day to achieve 5 trips and 50 passengers. The profit on hte day's working (JD 6.400) contains the same JD 3 drivers' element as the City servis. The remaining JD 3.4 000 is the owner's.

It is difficult to apportion the amount of working time as opposed to repair time and resting. We are guided by the CPD which doubts that more than half the servis are operational at any one time, and by the Syndicate's view tht a Servis owner is lucky to make JD 700 a year. It is unlikely that these long-distance servis run more than 200 a year, about 70,000 kms. a year. That is 200 days of an operating year of 330 days.

*Comprehensive Development Plan

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Applying these assumptions on performance to the Traffic Office figures gives the estimates set out in Table Out-of-Town Servis Route Performance.

Out-of-Town Servis Route Competing with PTC in Greater Amman: Estimated Performance

Route	Fare Fils	Trip kms	Number of Servis	No. of Servis per day	Passenger Trips
Amman-Madaba	300	66	162	98	4,900
Amman Sahab	130	26	136	82	9,500
Amman Khyrebit Soukh	110	16	96	58	7,900
Amman Quesmei	170	15	99	60	12,900
Amman Abu Alanda	140	20	49	30	3,200
Amman Wadi el Sir	150	25	98	59	5,900
Amman Salt	270	60 55	74	45	2,500
Ammvn Bak'aa	200	58 38	109	66	5,000
Amman Fuheis	200	51 45	44	27	2,000
Amman Suweilh	130	30	153	93	10,700
Amman Na'ur	150	32	40	24	2,400
Amman Zarqa (Autostrad	190	47	282	171	13,500
" Ruseifa, Zarqa	190	54	281	170	13,500
Abdali-Zarqa (Autostrad)	270	50	22	13	10
Abdali-Ruseifa-Xarqa	270	56	7	5	
		Total	1632	998	94,000

The estimation assumes each servis is operable 200 out of 330 full operating days a year and earns JD 15 in a full day.

Working Memorandum 3.5

Minibuses and Public Buses Privately Owned: Competition with PTC On Out-of-Town Routes

The following routes compete with the PTC in the Greater Amman area extended to the links with Bak'aa, Salt, Zarqa, Queen Alia Airport and Madaba. The figures are from Police Traffic-Office records.

	Minibus	Large Bus
Amman-Kyrebit Soukh Yadoudeh -	4	-
" -Yadoudeh only	1	-
" -Suweileh	1	3
" -Ain El Basha	2	-
" -Suweileh Marj al Feraz	2	-
" - " Shara Badra	2	-
" -Na'ur um el Basatin	4	1
" -Wadi El Sir	7	-
" -Madaba (Desert Highway)	-	11
" -Ma'in	1	1
" -Jerena Husban	2	1
" -Salt	4	12
" -Salt-Shouneh Kerama	4	3
" -Bak'aa	-	8
" " -Zarqa	-	35
University-Zarqa (Yajouz)	10	11
Bak'aa-Ain El Basha/Wadi el Sir	5	-
Amman-Mukhayem Schneller	-	4
Amman-Ruseifa	1	8
Total	50	98

It must be doubted if this represents an accurate account. For example from Bak'aa terminus it seems that at least 20 mini-bus operate to destinations which include Amman municipality.

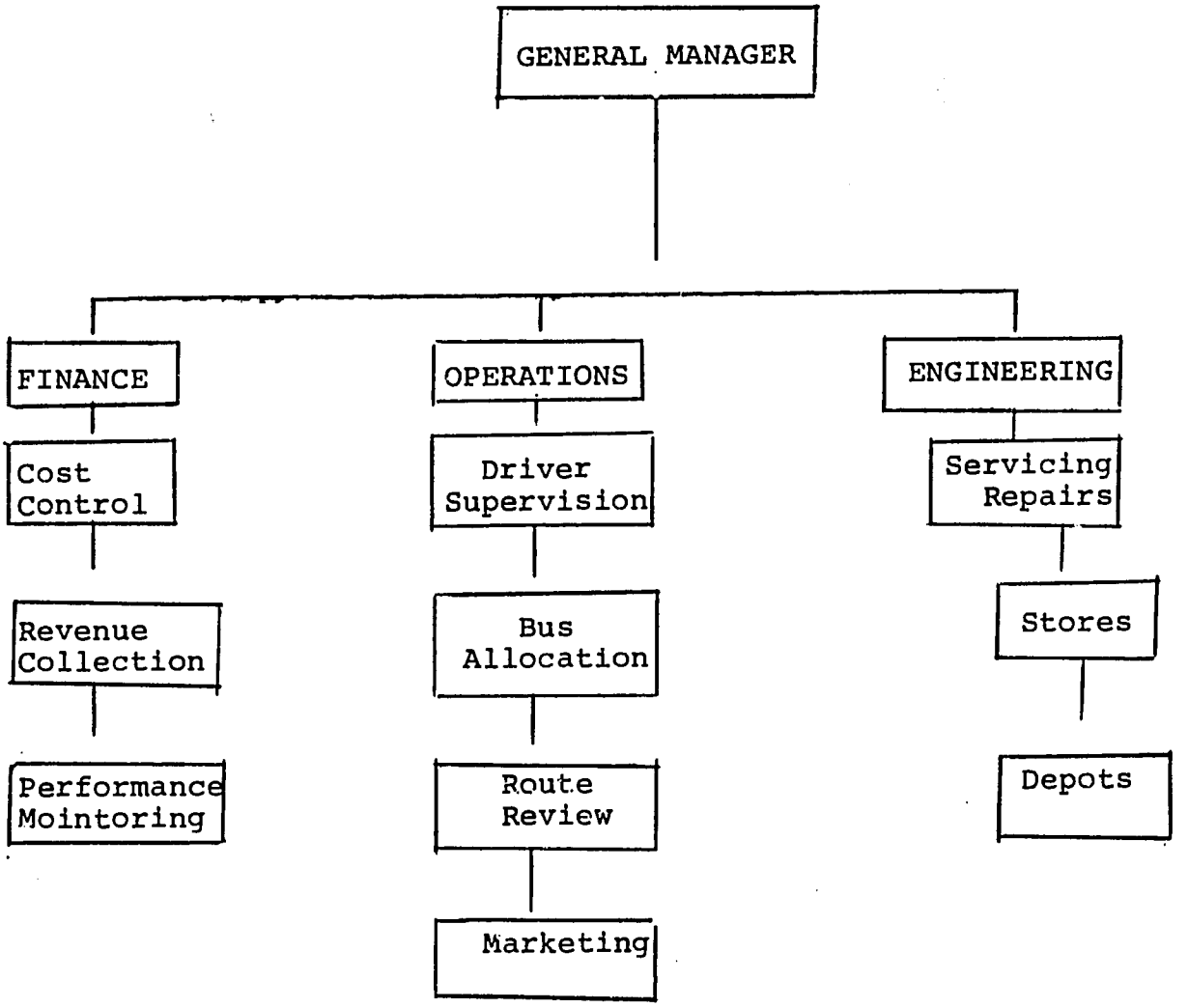
Without the time to examine the situation in detail we think it is prudent to allow for a 50% addition to the minibus figure and assume 75 minibuses and 98 large buses. We assume 90% availability for the (new) minibuses and 70% for large buses. The Comprehensive Development Plan (CDP) considered that about half the country buses were operational at any time. From our observations we think the figure of 70% is safer when applied to these commuter type routes close to Amman.

As regards passenger-attraction it is safe to assume that all privately operated minibuses and buses are profitabl. From international experience of similar circumstances it is reasonable to assume that 20-seat minibuses carry not less than 400 passengers a day and the 50-seat large buses not less than 600. These two estimates are reliable enough as a basis for establishing comparisons with the PTC.

75 minibuses of 90% availability are estimated to carry 27,000 passengers a day.

98 large buses at 70% availability are estimated to carry 41,000 passengers a day.

W.M. 4.1 PRIVATE PTC ORGANIZATION (HYPOTHETHICAL)



The Pricing of Public Transport Routes

General Considerations: It was once normal for governments to make bus operators pay for the right to provide service. Two things were assumed. The first was that the operators would make profit from their operations; the second was that the operators would have some sort of protection from competition.

In former British colonies for example it was customary for whole towns, or regions or even complete countries to be considered as areas in which only one bus operator would be licensed. The operator was normally offered a franchise for 50 years which guaranteed him a monopoly in return for royalty payments. There was however always the condition that the operator must provide a satisfactory level of services.

The royalty payment could take a number of different forms. In Hong Kong for example the Kowloon Motor Bus Company (1933) was obliged to accept payment of 25% of gross revenue to the Government. The China Motor Bus Company paid 10% of net income. The same type of franchise was applied there to the Ferry Companies, to the 2 Electricity Companies and to the Telephone Company.

Prior to the introduction of socialist governments in Western Europe the same sort of royalties or franchise fees were exacted by governments from bus and railway operators. In the U.S.A., state governments still charge railway operators very substantial taxes. In 1982 these amounted to US $ 442 million.

Government could in theory re-designate Amman City as a PTC bus monopoly but that would not necessarily make the PTC more attractive to private buyers. The growth of bus-using population is taking place in Outer Amman and between the outlying towns and Amman. That is the area where any intelligent bus operator will want to base his expansion.

Over half of Amman City is unsuitable for PTC buses. 3000 servis make a living there and will shortly produce Government revenue of JD 60,000 a year. It is probably desirable on employment and political grounds to encourage the servis to up-grade their activities. It is difficult to imagine Government wishing to take from the servis and give to the PTC. It is unlikely too that Government would wish to rescind private-bus and minibus licences in Outer Amman.

Our strong recommendation will be to recast the total route network. Make all the routes in the area more attractive. Allocate a fair share of intrinsically profitable routes to the PTC. All the routes will carry a price-tag. Government can recoup substantial fees not only from franchising PTC routes to the new private company but also from the PTC's competitors who will have neighbouring routes.

It would be folly to attempt to define a monopoly area for the PTC at this stage. Government and the operators and the public will all profit from a longer-term view.

/V

Addendum To Note On Public Transport Payments

Why Monopoly Franchises will not suit Jordan.

The work on Greater Amman's public transport services in relation to the PTC is not yet complete. Nevertheless, drawing upon the data we have collected from the PTC itself, the Police and, in particular the Municipality's Comprehensive Development Plan and testing it by our own roadside observations, we have a good picture of the overall scene.

The PTC gets about $\frac{1}{3}$ of its passengers from its "Country" routes and $\frac{2}{3}$ within the city. About 70,000 trips a day go on PTC's city routes and 40,000 on its country routes.

In the City the PTC has no large-bus competitors but the servis carry over 200,000 passengers a day. Some servis routes cover narrow, hilly streets where the PTC buses cannot run. Virtually all servis routes compete with PTC routes somewhere along their line.

Most Private large-bus routes and a few mini-bus routes penetrate to the City centre (e.g. Abdali) even if they do not circulate down-town. Even the Ragadhan Terminal accomodates several large-bus routes.

The PTC "monopoly" is in fact a legal fiction. Because the PTC has been unable to expand as Greater Amman has grown, so other more efficient but smaller operators have come in and eroded PTC territory. In, eg. Suweilih, Bak'aa, Wadi El Sir and similar outlying towns and on the PTC's so-called "best-route" Zarqa to Amman it is private buses and minibuses which are increasing their share of passengers carried. The PTC is losing passengers slowly but passenger traffic is growing over the whole area and the growth is going to the private sector. The latter has much lower costs and pays its drivers better.

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Generally speaking in the EEC countries Private bus and coach operators pay a per-seat licence-fee on an annual basis.

There are plenty of precedents for the Government of Jordan charging for the right to operate buses whether those buses are granted a monopoly or not. Already private bus, minibus and Servis operators have to pay substantial fees. It is understood that servis operators must pay JD 200 a year from 1987 for each servis operated. The only protection that servis enjoy is operation on a route which (except dow town) is kept clear of competitive servis operations.

It is of interest that servis licence fees translate into JD 40 per passenger seat. If this were applied to 50-seat buses the annual licence-fee per bus would be JD 2,000 and the PTC would currently pay JD 700,000 a year to Government in this respect.

The problem facing the Government is strictly practical and "commercial". It is not a matter of principle. The Government proposes to privatise and sell the PTC, probably by stages whereby Government's equity holding gradually reduces to zero.

The specialist working on this problem have indicated that the PTC in private ownership will have to increase current PTC revenue by about 60% . With this they will cover:

- debt servicing for the capital to purchase the PTC
- all operating costs
- taxes
- 20% profit on capital employed in order to finance replacement bus-purchase.

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If Government proposes a royalty at this stage of, let us say, JD 700,000 a year that would push up the increased revenue required from 60% to 78%.

The present PTC has no chance of increasing its revenue to any considerable degree. Its routes are impractical, its aims non-commercial and its personnel unproductive. Those 3 defects have to be corrected either by Government as the sole or majority shareholder during the months following initial privatisation, or by the new private owners. In the latter case the new private owners will need some very positive assurances that they have the right conditions to achieve the increased passengers and revenue required for profit.

If this reading of the situation is basically correct the Government has a hard task to re-organise the PTC using tough commercial management measures within the company in the interim period before the sale of equity. Government may decide to charge a 'royalty' but, if so, it must be on the basis of a % of net profit which means in effect that, if there is no profit, Government receives no royalty.

The specialists' view is that Government must develop 'something to sell' in the form of a completely re-organised route-network for the whole of Greater Amman some of which is dedicated to a new, private PTC and the rest to other private bus, minibus and servis operators. The whole network would be designed to make all routes profitable, and to justify royalty or fees at least equivalent to JD 40 per-seat the present servis rate.

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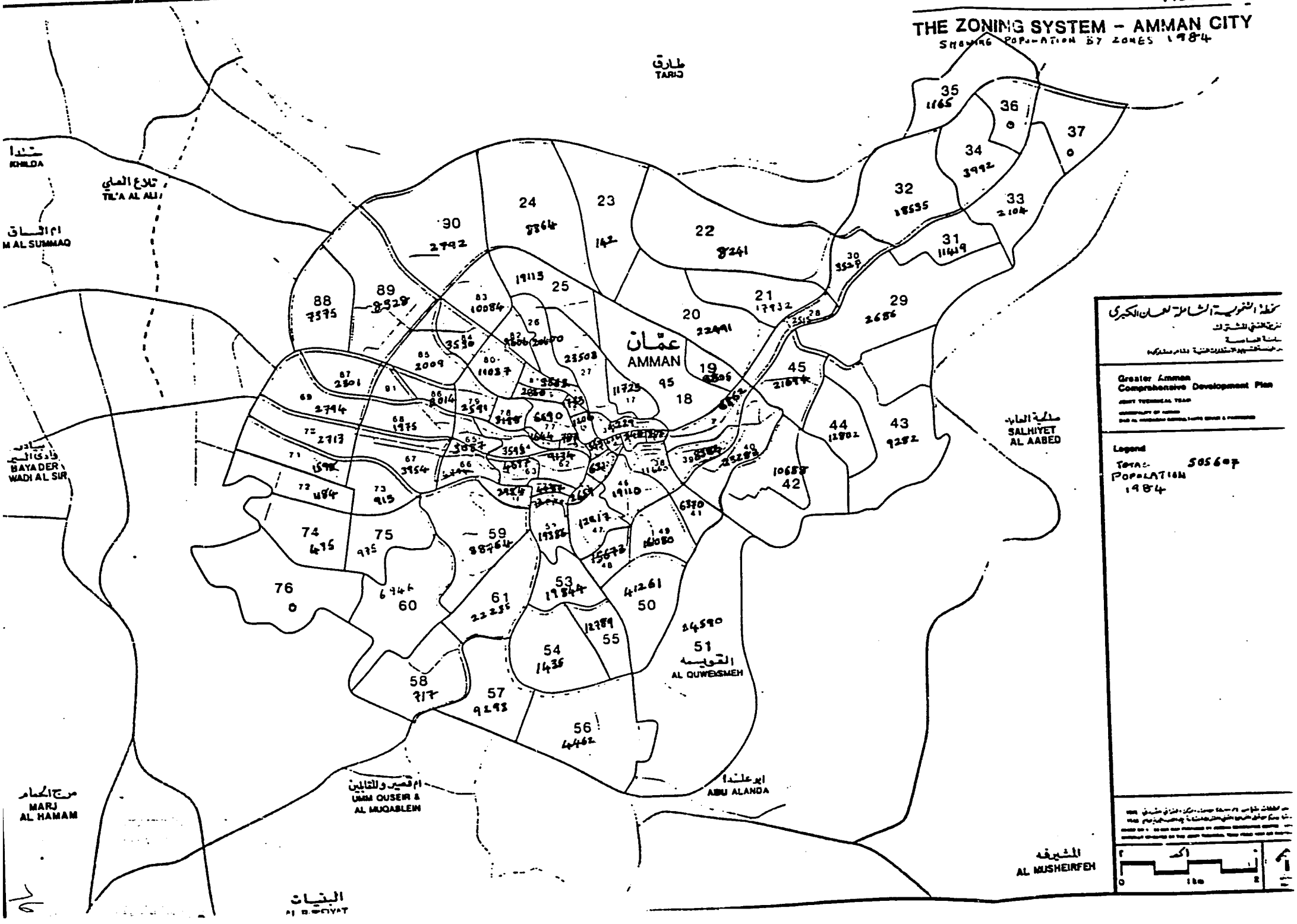
FIGURE

THE ZONING SYSTEM – AMMAN CITY

SHOWING POPULATION BY ZONES 1984



Greater Amman Comprehensive Development Plan

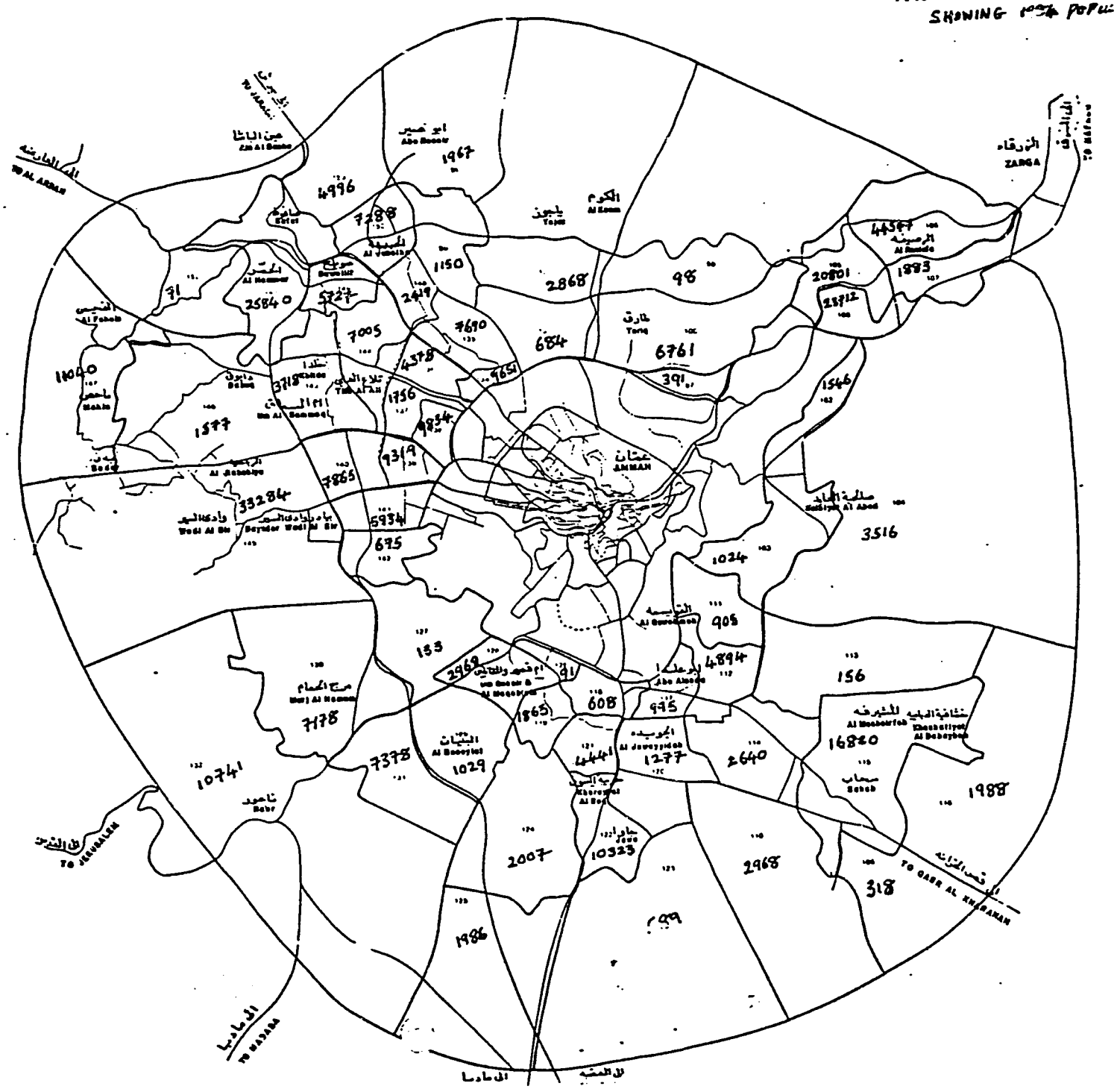
Legend

TOTAL POPULATION 1984 505607

FIGURE

THE ZONING SYSTEM – GREATER AMMAN

SHOWING 1994 POPULATION BY ZONES



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