

NATIONAL TRANSPORT RESEARCH CENTRE

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1989.

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URBAN TRANSPORT WING

IN

NATIONAL TRANSPORT RESEARCH CENTRE

PC-I

NTRC - 98

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January 1989

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PART 'A'
PROJECT DIGEST

1. Name of Project : URBAN TRANSPORT WING IN NTRC
2. Authorities responsible for :
- (a) Sponsoring : PLANNING COMMISSION
- (b) Execution : NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)
- (c) Operation and Maintenance : NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)
3. Time required for completion of Project : 48 months (July, 1989 - June, 1993)

4. (a) Plan Provision

- (i) If the Project is included in the current five Year Plan, specify actual allocation :

From Rs. 125 million for NTRC during the 7th Five Year Plan.

- (ii) If not included in the current Plan, how is it now proposed to be accommodated :

N.A.

- (iii) If the project is proposed to be financed out of block provision for a programme indicate :

<u>Total Block Provision</u>	<u>Amount</u>	<u>Rs. Million</u> <u>Amount</u>	<u>Proposed for this Project</u>	<u>Balance Available</u>
125	50.0 (Phase-III NTRC 20.9 (R.R. Division)	33.3	20.8	

- (b) If Project is not in the Plan : What warrants its inclusion in the Plan :

N.A.

5. Relationship of the Project with the objectives of the Sector :

Over the years, the urban transport problem has grown from bad to worst in almost all the larger cities of the country. The problem has assumed alarming proportions in Karachi while the system in other major cities are also on the verge of collapse.

The seriousness of the problem is obvious from the recent happenings in Karachi and criticism and dis-satisfaction being voiced by the press and public alike concerning the management and operation of public and private transport, municipal authorities, Highway Departments, Transport Authorities, Traffic Police, etc.

Recognizing the gravity of the situation, the government has taken a number of steps to alleviate the difficulty. The proposed project is in line with the government efforts to find long lasting solution for the problem.

6. <u>Capital Cost of Project :</u>	(In Million Rupees)
Local Costs :	28.300
Foreign Exchange Costs :	5.000
Total :	<u>33.300</u>
7. <u>Annual Recurring Expenditure after Completion :</u>	(In Million Rupees)
Local Costs :	5.510
Foreign Exchange Costs :	-
Total :	<u>5.510</u>
8. <u>Objectives of the Project preferably in Quantitative Terms :</u>	

The major objectives of the Urban Transport Wing would be as follows :-

- (1) To help in formulating an urban transport policy at the national level for which :

- (a) an uptodate Data Bank would be established
 - (b) surveys would be conducted to collect field data
 - (c) research Studies on various aspects of urban transportation would be undertaken.
- (2) To establish close liaison with other urban transport organizations/institutions within the country and also with the developed as well as developing countries.
 - (3) To reduce dependence on foreign expertise in the field of urban transportation and to persuade various international agencies to either sponsor research in areas where sufficient expertise has been developed and to undertake research independently or in collaboration in areas of mutual interest.
 - (4) To arrange maximum dissemination of research being undertaken by the Centre among various individuals and organization both at the local and international level.
 - (5) To implement/execute experimental pilot projects on the basis of research carried out in the Centre to give the research efforts undertaken in the Centre the 'problem oriented outlook'.
 - (6) To organize national and international seminars to discuss the problems facing the country in the field of urban transport and make suitable recommendations to the Government.
 - (7) To arrange and organize training courses on various aspects of urban transportation planning, management and operations, etc.

PREPARED BY

.... - M. Kazim Idris, Deputy Chief, NTTC
- Abdul Majeed, Deputy Chief, NTTC

APPROVED BY

.... M. Sadiq Swati, Chief, NTTC

PART 'B'

PROJECT DESCRIPTION AND FINANCING

9. Location of Project : ISLAMABAD
10. Existing Facilities :

The urban transport planning, is a multi-disciplinary activity requiring coordinated services of planners, engineers, economists, system analysts, management specialists, etc. There is however not a single institution embodying the requisite expertise in existence in the country. National Transport Research Centre has done some work in this area but keeping in view the dimension of the problem, it at best amount to scratching of the surface. As a result the country is largely dependent on foreign experts for advice regarding this highly sensitive area. This however has a number of disadvantages as briefly summarized below :

- (a) The foreign consultants are not in a position to fully appreciate the socio-political aspects of the problem and often propose measure which are totally out of line with realities.
- (b) The venture does not leave any residual expertise, as a result the dependence on foreign consultants is perpetual.
- (c) The costs are prohibitive.

During 1960s Master Plans were prepared for a number of cities in Pakistan. Since these Master Plans were prepared by the Physical Planners, only land use was adequately covered in these plans and transportation which is the other essential component was only cursorily dealt with. However over the years due to tremendous growth in urban transportation, the

transportation aspect has assumed great importance and now urgent steps were necessary to devise appropriate solutions for the growing urban transportation problem.

The fact of the matter is that there is as yet no comprehensive transport plan dealing with urban transport problem as a whole. The location of housing and business activities lay out of roads and transport network, operation of services, their organization, planning, pricing, etc. should be considered as an organic whole. The housing and business activities should be located so as to make minimum demand on transport, the lay out of network should be in line with the location of housing and business activities so that traffic circulation is possible without friction, the housing and population growth should be matched with increase in supply of transport services, etc.

The transport planning studies are so specialized that it is not possible for any of the local bodies to hire and maintain a multi-disciplinary team. Since there is no formal education in transport planning in any of the universities in Pakistan, very few personnel with necessary education and training are available in the country. The local engineering and consultancy firms also have no experience of transport planning studies. There is thus urgent need to develop institutional arrangement to provide the requisite expertise.

Scope of Work

Transport planning, though a multi-disciplinary activity,

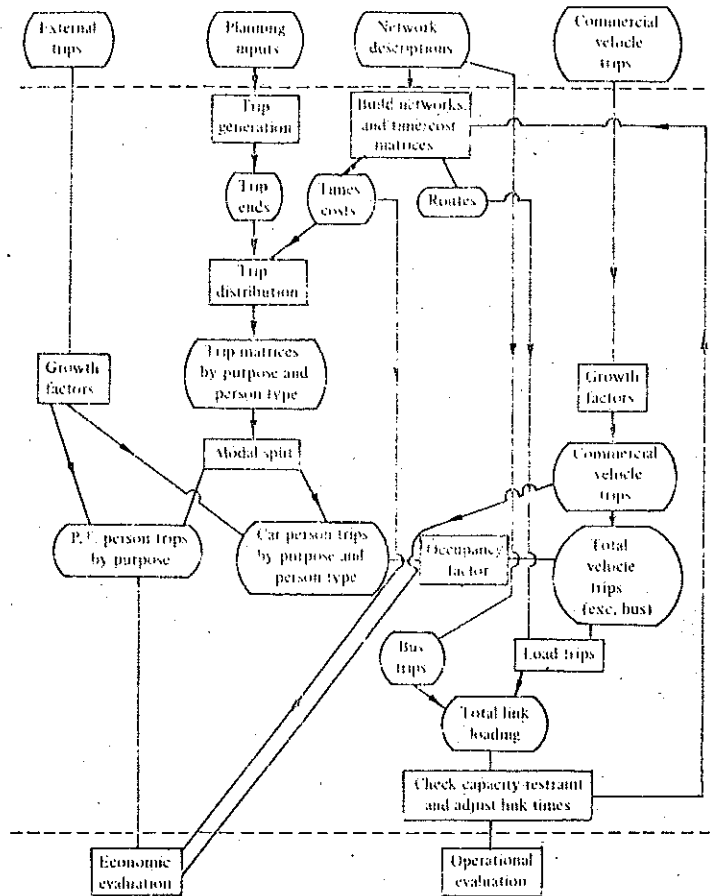
is a discipline in itself. There is a definite procedure for preparing a comprehensive transport plan. It requires a certain amount of socio-economic and transport data such as zoning of the area, population distribution, housing characteristics, business and service activities, other land uses, node-link capacities, vehicle ownership, travel times and costs, origin-destination of person trips and goods by zone, mode, etc. On the basis of such information, models of trip generation/attraction, distribution, modal split and assignment are built and stable relationships are discovered. Then on the basis of projected values of socio-economic and various land use factors, projections of future demand for each mode and link are made and compared with capacities; deficiencies are identified and plans and programmes drawn up. Effects of alternate plans and policies are evaluated and comprehensive plans and policies are formulated for implementation. A simplified version of an urban transport planning model is given in figure (i) for illustration.

Data Sources

The most critical impediment in the way of preparing comprehensive Urban Transport Plans is lack of proper data. The basic data concerning zoning, population, housing and other land uses is not maintained by the local bodies in the form which could be used for transport planning purposes.

The problem is compounded by the fact that various agencies concerned with different aspects of the urban transport operate independent of each other and without essential coordination. For

Fig.(i) URBAN TRANSPORT PLANNING MODEL



example, roads are built by Highway Departments or Local Bodies, e.g. Municipal Corporation, Cantonment Boards and Development Authorities; permits for buses and public service vehicles are granted by Transport Authorities; Taxes are imposed and collected by Excise and Taxation Departments. There is no systematic study or analysis of where and when to build a road, where and how many route permits are needed. Besides, there is complete lack of awareness and application of traffic engineering techniques. Decisions about location of housing and business activities are being made without proper consideration of their effect on transport. Efforts are being made by various departments concerned with the problem in their own way. However, such efforts are disjointed and lack any cohesion. Moreover, extremely costly solutions are being proposed worst confounding the confusion.

As the basic data required for proper transport planning is not maintained by local bodies, there is need for devising ways and means for acquiring, storage and retrieval of needed data.

The data concerning trip generation, attraction, network inventories, traffic volume, etc. is to be collected by means specific surveys based on house-hold, business establishments and road side interviews. In addition, information on traffic movements would have be collected by the agency specializing in transport planning studies.

11. Background

In the third meeting of Inter Ministerial Committee of NTRC held at Islamabad on 17th September, 1986 under the

Chairmanship of Minister for Planning and Development, the concern expressed by the Prime Minister regarding worsening transportation problem faced by all the major cities in the country also came under discussion. The Minister observed that the Karachi city transport problems were already being studied under the Karachi Special Development Programme with the assistance of the World Bank and suggested that NTRC should undertake similar studies for Lahore and Rawalpindi. It was however agreed that since Comprehensive Urban Transportation Planning was a costly undertaking, it would be uneconomic to confine the expert team to one city or place. The team should therefore carry out studies for various city one by one. Accordingly, the Committee decided that :

- (a) Urban transport should be the main focus of attention in future research programmes of the Centre; and issues and problems should be properly examined and the research programme should be finalized expeditiously; and
- (b) NTRC may be given the staff and funds required to carry out comprehensive Urban Transport Study for Rawalpindi-Islamabad.

The matter was also discussed by the two Sub-Working Groups constituted by the Planning Commission on (a) Road Transport and (b) Transport Research in connection with 7th Five Year Plan. Both the groups unanimously recommended that in order to overcome the problem of urban transportation, preferably a full-fledged institute of Urban Transport Studies should be set up which could undertake the requisite studies. However, a beginning should be made by setting up a division in the Centre.

The matter was also deliberated upon by the Research Advisory Committee of the Centre in its meeting held on 30.03.1987 in which it was decided that the setting up of Wing of Urban Transport Studies in the Centre would be the most desired course.

Accordingly a PC-I for the setting up of an Urban Transport Wing in the National Transport Research Centre was prepared at an estimated cost of Rs. 6.459 million spread over a period of one year. Although the initial project cost was within the sanctioning competence of the Planning Commission, it was considered desirable that since the subject was of direct concern to the provinces, their views should also be solicited and irrespective of the sanctioning powers the scheme should be placed before the CDWP.

The PC-I was discussed with the Ministry of Communications and Provincial Government representatives from the Punjab and from Sind, NWFP and Baluchistan in two separate meeting held on 4th May, 1987 and 14th July, 1987 respectively in which the following unanimous consensus emerged :-

- (1) The scheme was unanimously endorsed.
- (2) The time frame for the scheme should be six years instead of the proposed one year after which it may be merged with the main programme for all the (Wings) Divisions of NTRC.
- (3) Notwithstanding the fact that the scheme falls within the sanctioning competence of the DDWP, it would be processed through the CDWP on the grounds that it is of great concern to all the Provincial Governments.
- (4) Provincial Urban Development Authorities should act as local contact point and efforts should be made to

develop proper institutional arrangements within these authorities to act as counter part to the proposed federal institute.

Minutes of the meetings may be seen in Annex A.1, and A.2 respectively.

The proposal has also been considered by the 4th Inter Ministerial Committee meeting of NTRC held under the chairmanship of Dr. Mahbub ul Haq, Federal Minister for Commerce, Planning and Development on 24th September, 1987 and while the scheme was endorsed it was decided that the provinces should be fully associated and the provincial governments should bear at least 20% of the cost of urban transport studies to be undertaken by the Centre. Relevant extracts from the minutes of the meeting may kindly be seen at Annex-A.3.

The PC-I for Urban Transport Wing was accordingly prepared amounting to Rs. 29.950 million and duly incorporating the Work Plan for the preparation of Transportation Plans for Rawalpindi/Islamabad and Peshawar. The Plan for Rawalpindi/Islamabad was discussed in detail with the CDA and other concerned agencies (Minutes at Annex-A.4). The CDA while fully endorsing the Work Plan however confirmed their participation in 'kind' by deputing one or two of their officers on the project (Annex-A.5). The PC-I was formally submitted to the DA Section on 9th March, 1988 for its further processing through the CDWP. However subsequently, it was amalgamated in the PC-II of NTRC for Phase-III (1988-93) amounting to Rs. 89.550 million and was submitted to the CDWP for consideration on 17th April, 1988. Before approving the Phase-III Programme of NTRC for Rs. 50 million in its meeting on 10th August, 1988, CDWP decided on 2nd May, 1988 to set up an Evaluation Committee to review the work done by the Centre and examine its future programme.

While the Evaluation Committee fully endorsed the Programme of Phase-III of NTRC, the matter regarding Urban Transport Studies came under discussion in the CDWP meeting on 10th August, 1988 and it was felt that since the subject of urban transportation was of a highly specialized nature, it would be necessary to prepare a detailed PC-I separately and therefore the provision made for Urban Transport Studies in the Phase-III programme of NTRC was deleted. Minutes of the CDWP meeting held on 10th August, 1988 may kindly be seen at Annex-A.6.

The present PC-I has been prepared accordingly and was considered in the 5th Inter Ministerial Committee (IMC) Meeting of NTRC held under the chairmanship of the Deputy Chairman, Planning Commission on 23.11.1988. The Committee decided that the PC-I should be processed for approval through the CDWP. Minutes of the 5th IMC meeting may kindly be seen at Annex-A.7.

Proposal

In accordance with the preceding decisions, a proposal has now been formulated to set up an Urban Transport Wing in NTRC. The Wing would gather together the experts in the field of transportation planning, develop expertise in this field, undertake studies in all major cities, impart training to the staff of local bodies and other agencies concerned and maintain a data bank of the data collected for future use. The Wing would undertake/ update studies in main cities at regular intervals and cover new cities growing in size.

Work Schedule

Although the Centre has already received requests from several cities to assist them in transport planning, the Wing would undertake urban transport planning studies in Rawalpindi/ Islamabad, Peshawar, Lahore, Quetta and other larger cities in order of priority.

It would not be out of place to mention here that in Japan, the Ministry of Construction undertake urban transport planning studies in 70 cities every year including studies based on Home Interview Surveys in 30 large cities and urban Origin Destination

surveys in 40 smaller cities a year. The Urban Transport Planning Studies in main cities are updated every 10 years.

Functions of the Urban Transport Wing

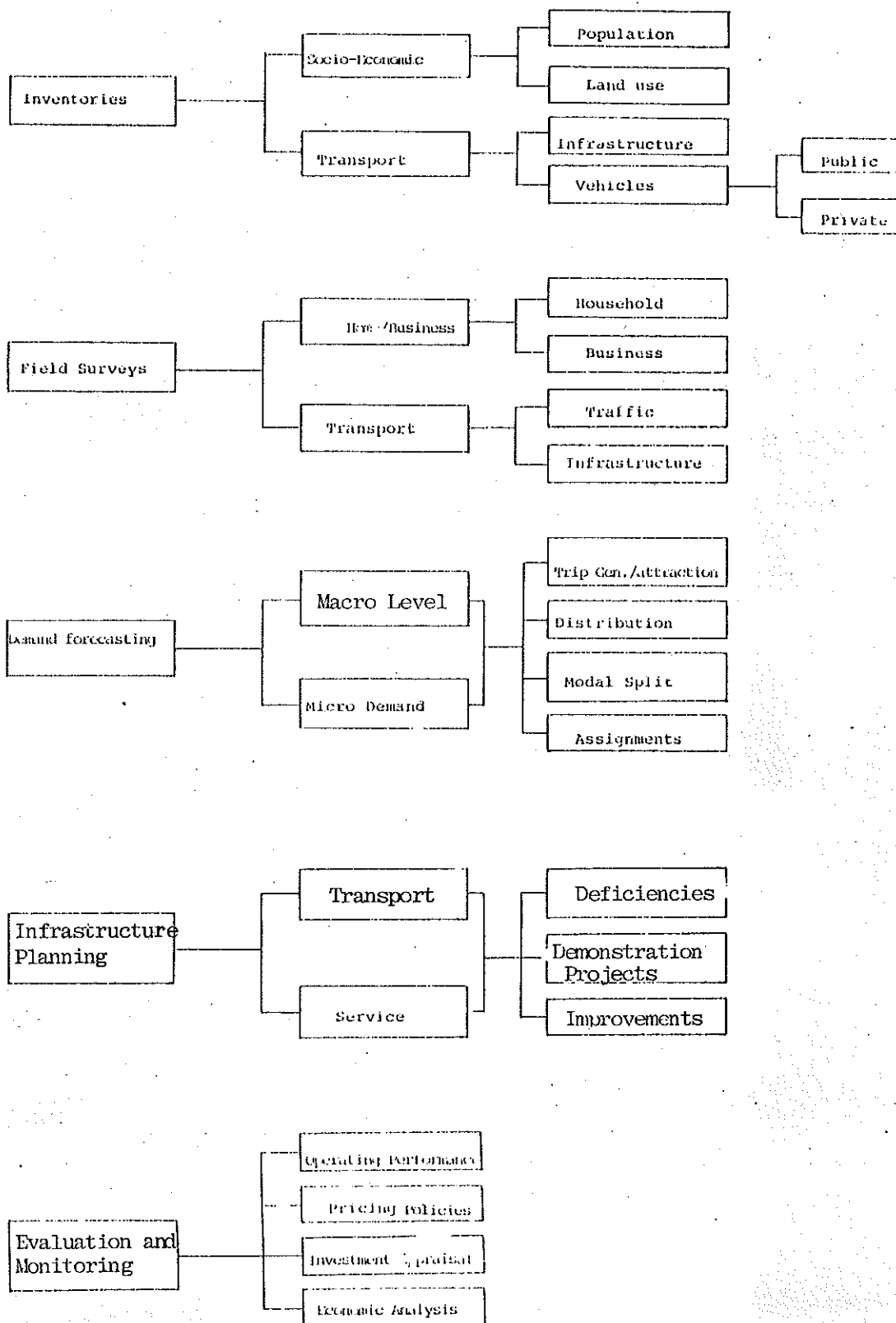
The functional organization of the proposed Urban Transport Wing is shown in figure (ii). The areas selected are those which are absolute minimum for any meaningful attempt at studying the problem properly and are based on the socio-economic conditions prevailing in the country. The salient features of the functional organization are explained below :-

- (a) Inventories : The starting point of urban transport planning studies is to prepare inventories of socio-economic and transport related factors. The socio-economic factors include population and land use characteristics. The population characteristics include family composition, occupation, education, income distribution, etc. The land use characteristics include area used for housing, business (retail and whole sale), manufacturing, services, etc. The inventories relating to transport include node and link data, their capacities, vehicle ownership - number of vehicles, public service and private, their operational performance, utilization, etc.

The inventories should ideally be prepared by local bodies as a continuous process. In view of lack of resources, experience and know how with local bodies, the Centre would assist them in building and maintaining essential inventories in a form suitable for transport planning studies.

- (b) Field Surveys : The inventories are supplemented by field surveys which fall into two main categories; one are based on house hold and business establishments and the other concern traffic volume and infrastructure. The household surveys would provide information on family composition, employment, education, vehicle ownership trips performed during a specified period by purpose, mode etc. This information would be the central point of the planning process. Similarly surveys of commercial establishments would provide information on type of activity, size, employment, trip generation, etc. Trips would be related to various characteristics of the household. These surveys would be carried out on sampling basis.

Fig. (ii) FUNCTIONAL ORGANIZATION OF URBAN TRANSPORT WING



(c) Demand Forecasting : The data available from inventories and surveys would provide inputs for demand forecasting which would be made at two levels - macro and micro. At macro level the forecasts will give overall magnitude of demand which would serve as a cross check for micro demand models. At the micro level, the demand forecasts would be made for each mode and link by means of usual four step transport planning model, trip generation/attraction, distribution, modal-split and assignment. The forecasts for each mode and link would be compared with capacities to identify deficiencies and bottlenecks for formulating policies, plans, programmes and projects for improvement.

(d) Infrastructure Planning : The identification of deficiencies and bottlenecks would call for preparation of detailed plans, programmes and review of policies to remove bottlenecks and deficiencies. There would be alternate ways of overcoming the deficiencies. The relative costs and benefits of such alternative would be evaluated and the most optimum solutions would be selected for detailed design and implementation. Such plans would include improvement and widening of existing facilities, creation of new facilities, modification of services, changes in policies concerning pricing, investment, etc.

In addition, there would be a number of traffic engineering plans concerning circulation of traffic in the city like signalling, roundabouts, one way traffic, parking, regulation, etc. Detailed traffic engineering plans would be prepared and their implementation observed.

(e) Evaluation : In addition to planning and design of infrastructure and services, there would be need for evaluation of alternatives, economic analysis of investment projects, review of performance of public and private sector enterprise, cost benefit analysis of various location and land use options. In addition there would be review and analysis of policies and programmes concerning regulation of public service vehicles, pricing of services and infrastructure, investment, coordination, etc.

Staff Requirements

The staff required for the Urban Transport Wing will consist of a multi-disciplinary team of planners, engineers, economists, system analysts, management specialists, etc. To

start with it is proposed to have one post of Chief, 5 posts of Deputy Chiefs, 5 posts of Assistant Chiefs and 10 posts of Research Officers and their supporting staff as follows :-

<u>Name of Post</u>	<u>BPS</u>	<u>No</u>
Chief	20	1
Deputy Chief	19	5
Assistant Chief	18	5
Research Officer	17	10
Superintendent	16	1
Stenographer	15	6
Stenotypist	12	10
Assistant	11	1
Draughtsman	11	1
L.D.C.	5	2
Naib Qasid	1	15

Total : 57

The professional staff would have specialized qualifications in the following disciplines :

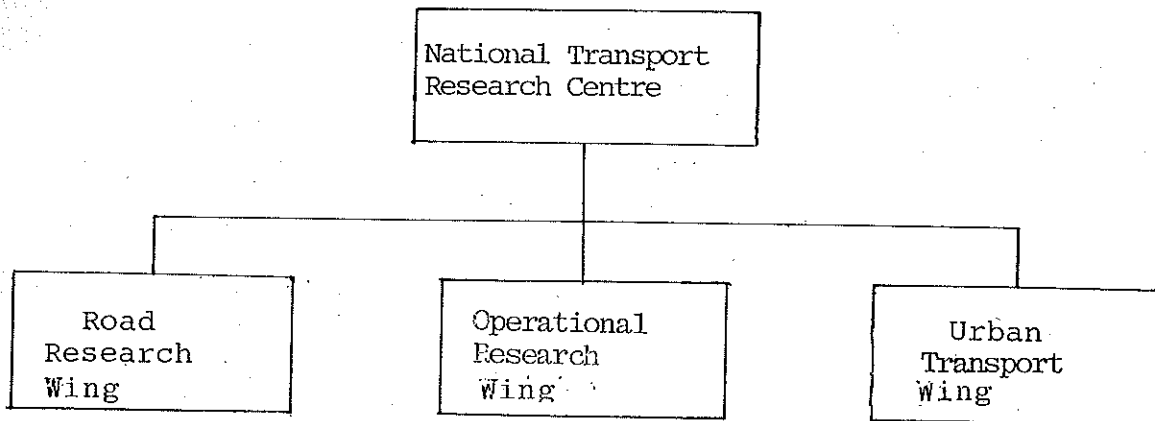
1. Transport Planning
2. Transport Economics
3. Urban Planning
4. Systems Analysis
5. Statistics
6. Traffic Engineering
7. Operational Research
8. Highway Engineering
9. Urban Geography
10. Other related subjects

Deputy Chiefs and Assistant Chiefs would have the experience required under the rules for officers in the respective grades and efforts would be made to hire experts in specialized fields on contract.

Administrative Organization

The proposed unit would be part of the National Transport Research Centre alongwith Road Research Wing. The existing organization has been re-named as Operations Research Wing. The administrative organization of the Centre may be seen in figure (iii).

Fig.(iii) Administrative Organization



The detailed organizational chart may be seen in Fig.(iv).

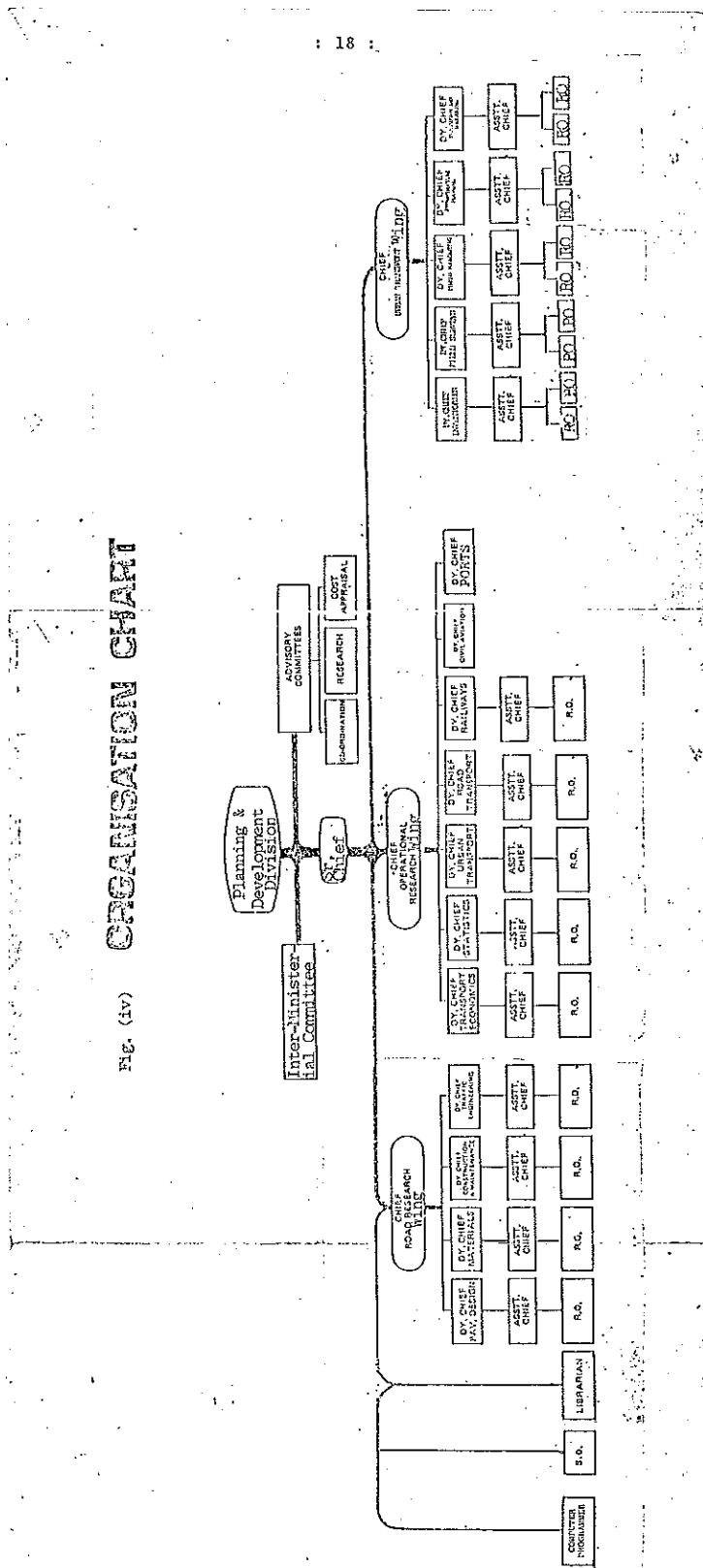
12. Date when capital expenditure estimates were prepared :

October, 1988

13. Cost Estimates :

The cost estimates have been prepared for a period of 48 months w.e.f. 1st July, 1989 to 30th June, 1993. Thereafter the

FIG. (IV) ORGANISATION CHART



requirements would be incorporated in the work programme of the Centre, together with the Road Research Wing. The initial cost of the scheme is estimated at Rs. 33.300 million including FEC of Rs. 5.00 million which has been kept as a token provision for Technical Assistance keeping in view the growing interest of Aid-giving agencies like the World Bank Asian Development Bank (ADB), Japan International Cooperative Agency (JICA), the Overseas Economic Cooperative Fund (OECF), etc. The overall summary is as follows :-

S. No.	I t e m	(Rupees)			Remarks
		Local	F.E.C.	Total	
1.	<u>SALARY AND FIELD SURVEYS</u>				
	(a) Regular Staff	9,798,100	-	9,798,100	Annex-B
	(b) Survey Staff	2,452,080	-	2,452,080	"
	(c) Field Surveys	5,500,000	-	5,500,000	"
	Sub-Total (1)	17,750,180	-	17,750,180	
2.	Other Expenditure	3,288,000	-	3,288,000	Annex-C
3.	Durable Goods	1,713,900	-	1,713,900	Annex-D
4.	Office Building	4,200,000	-	4,200,000	Annex-E
	Sub-Total (2-4)	9,201,900	-	9,201,900	
	Sub-Total (1-4)	26,952,080	-	26,952,080	
5.	Contingencies @ 5%	1,347,604	-	1,347,604	
6.	Technical Assistance	-	5,000,000	5,000,000	
	Total :-	28,299,684	5,000,000	33,299,684	

The detailed statement with year-wise phasing may be seen in Annex-'G' It may be pointed out that the 5-acre plot of land already acquired by the Centre from the CDA in Sector H-8 would meet the land requirement and therefore no separate provision for land acquisition has been made.

14. Basis of Cost Estimates :

Existing Market Rates.

15. Annual Recurring Expenditure after Completion :

The annual recurring expenditure after completion of the project is estimated at Rs. 5.510 million as per summary given below :-

Annual Recurring Expenditure after completion (contd.)

(Rs.)					
S. No.	Item	Local	F.E.C.	Total	Remarks
1.	2.	3.	4.	5.	6.
1.	Research Staff	1,817,495	-	1,817,495	Annex-'H'
2.	Ancillary Staff	725,144	-	725,144	Annex-'I'
3.	Survey Staff	644,340	-	644,340	Annex-'J'
4.	Field Surveys	1,500,000	-	1,500,000	L.S.
5.	Transport (PCL)	100,000	-	100,000	L.S.
6.	Communications	100,000	-	100,000	L.S.
7.	Utilities	60,000	-	60,000	L.S.
8.	Stationery	50,000	-	50,000	L.S.
9.	Printing	50,000	-	50,000	L.S.
10.	Books, Journal and News Papers, etc.	25,000	-	25,000	L.S.
11.	Contingent Staff	25,000	-	25,000	L.S.
12.	Uniform and Liveries	10,000	-	10,000	L.S.
13.	Building Maintenance	66,000	-	66,000	L.S.
14.	Other Expenditure/ Maintenance of Equipment	75,000	-	75,000	L.S.
Sub-Total (1 - 13) :-		5,247,979	-	5,247,979	
15.	Contingencies @ 5%	262,399	-	262,399	
Total :-		5,510,378		5,510,378	

- L.S. : Lumpsum

16. Unit Costs for each category of service or output :

— Not Applicable —

17. In case of Industrial research, if the processes developed are to be leased to commercial firms give cash flow statement inflow and outflow) for the next five years :

— Not Applicable —

18. Annual Phasing of Physical Work and Financial requirements for the project :

I. Physical Work :

(Percentage)

S. No.	Description	1989-90	1990-91	1991-92	1992 - 93	Remarks
1.	2.	3.	4.	5.	6.	7.
1.	<u>Field Surveys</u>					
	- Annual	19	27	27	27	
	- Cumulative	19	46	73	100	
2.	Durable Goods	100	-	-	-	
3.	<u>Office Building</u>					
	- Annual	50	50	-	-	
	- Cumulative	50	100	-	-	

II. Financial Requirements

(Rs. Million)

S. No.	Description	1989-90	1990-91	1991-92	1992-93	Total (1989-93)
1.	2.	3.	4.	5.	6.	7.
1.	<u>Salary</u>					
	- Regular Staff	2.356	2.418	2.481	2.543	9.798
	- Field Staff	0.582	0.603	0.623	0.644	2.452
2.	Field Surveys	1.000	1.500	1.500	1.500	5.500
3.	Durable Goods	1.714	-	-	-	1.714
4.	Office Building	2.100	2.100	-	-	4.200
5.	Other Expenditure	1.083	1.083	0.561	0.561	3.288
6.	Technical Assistance (FEC)	1.000	1.000	1.500	1.500	5.000
7.	Contingencies	0.442	0.385	0.258	0.262	1.348
	Total :-	10.277	9.089	6.923	7.010	33.300

PART 'C'PROJECT REQUIREMENTS

For Execution for Operation

19. (a) Manpower :	<u>Man-month</u>	<u>Number</u>
(1) Professional & Technical	1,008	21
(2) Administrative, Executive and managerial	-	-
(3) Administration Staff	1,008	21
(4) Sales	-	-
(5) Service	720	15
(6) Skilled (Survey staff)	1,200	25
(7) Semi Skilled	-	-
(8) Unskilled	-	-
(9) Others	-	-
(10) Foreign Consultants.	-	-
(b) Likely shortage of manpower by occupation.	-	-
(c) Steps to be taken to assure availability of manpower	-	-
(d) Approximate number of persons required to be trained per year (Locally and abroad) and the kind of skills to be learnt.	-	-
(e) Give total capital outlay.	-	-

20. Physical and other facilities required for Project :

S. No.	I t e m	Total	To be provided from the project itself	To be provided from the Public utility
(a)	Power Supply		-	Yes
(b)	Water & other utilities		-	Yes
(c)	Education facilities by type		-	-
(d)	Housing by type		-	-
(e)	Others		-	-
(f)	Office Building	14,000 sq.ft.	Yes	-

21. Materials, Supplies and Equipment requirement :

A.I. Minimum total requirements for execution. — To be completed only for major items costing more than 10% of the total cost.

I t e m	Unit	Local		Foreign		Already avail.with agency
		Qty. (Sq.ft)	Rate per Unit (Rs.)	Cost Rs.Mil.	Qty.	
<u>1. Materials :</u>						
(a) Building	Sq.Ft	14,000	300	4.200	-	-
(b)						
(c)						
(d)						
(e)						
<u>2. Spare and Supplies :</u>						
(a)						
(b)						
(c)						
(d)						
(e)						
(f)						
(g)						
<u>3. Equipment and Machinery :</u>						
(a)						
(b)						
(c)						
(d)						
(e)						

A.II. Material : Spares and Supplies and equipment for Operation of Project :

Unit	Local			Foreign		
	Qty.	Rate per Unit	Cost	Qty.	Rate per Unit	Cost
1. <u>Material :</u>						
(a)						
(b)						N.A.
(c)						
2. <u>Supplies and Spares</u>						
(a)						
(b)						

22. In the case of imported material and equipment for execution, indicate :

- (a) Justification for imports
- (b) Proposed source/sources of supply.

N.A.

PART - 'D'

WORK PLAN

Subject to approval of the PC-I and sanction of staff by the F.A. Wing by 30th June, 1989, the tentative Work Plan would be as follows :-

- | | |
|-------------------------------------|--|
| - July 1989 to
December 1989 | - Recruitment of Staff and
Completion of preliminary
arrangements such as hiring
of office building, etc. |
| - January, 1990 to
December 1991 | - Preparation of Transportation
Plan for Rawalpindi/Islamabad |
| - January 1991 to
June, 1993 | - Preparation of Transportation
Plan for Peshawar |

A detailed programme of studies for the two cities namely Rawalpindi - Islamabad (January, 1990 to December, 1991) and Peshawar (January 1991 to June, 1993) has been prepared and would comprise a number of short-term and long-term measures. The salient features are as follows :-

A. <u>SHORT TERM</u>	<u>Man - Months</u>		
	<u>Rwp/Isl</u>	<u>Pesh</u>	<u>Total</u>
1. Accident Black Spots Improvement	47	31	78
2. <u>Intersection Improvements :</u>			
(a) Geometric Improvement	32	26	58
(b) Signal Synchronization	32	26	58
3. <u>Link Improvement :</u>			
(a) Geometric Improvement	47	31	78
(b) Road Sign and Marking	47	31	78
4. <u>Public Service Facilities :</u>			
(a) Demand/Supply Assessment	84	52	136
- Bus			
- Mini Bus			
- Taxis			
- Rickshaws			
- Others			

	Man - Months		
	Rwp/Isl	Pesh	Total
(b) Storage Facilities	63	31	94
- Bus Stops			
- Bus Bays			
- Taxi Stand			
- Rickshaw Stand			
- Other			
5. <u>Parking Facilities :</u>	63	32	95
(a) Demand/Supply Assessment			
(b) Location of Parking			
(c) Parking Controls			
6. <u>Pedestrian Facilities :</u>	24	24	48
(a) Footpath Improvements			
(b) Guardrails			
(c) Pedestrian Bridges			
(d) Others			
7. <u>Other Low Cost Measures</u>	24	24	48
(a) Bus Lanes			
(c) One-way Street			
(d) Turn Prohibition			
(e) Channelization, etc.			
 B. <u>LONG TERM</u>			
1. Land Use	95	78	173
2. O-D Survey	79	63	142
3. Trip Generation	79	63	142
4. Travel Characteristics	79	63	142
5. System Inventories	95	78	173
6. Data Bank	95	78	173
7. Design Standards	63	47	110
8. Others	32	32	64
Total :	1080	810	1890

The programme has been designed keeping in view the objective of completing the actual implementation of various elements of the programme. The man-months indicated are

very tentative and subject to variation at the stage of detailed planning. It is proposed to raise 5 teams under each Deputy Chief which would complete the task in Rawalpindi-Islamabad over the period December, 1989 to December, 1991 and repeat the study for Peshawar from January 1992 to June, 1993.

The Bar-Chart depicting the time frame and sequential order for each activity is annexed (Annex-'K' and 'L').

ANNEXURES

URBAN TRANSPORT WING IN NTRCMINUTES OF THE MEETING HELD WITH THE MINISTRY
OF COMMUNICATIONS AND GOVERNMENT OF PUNJAB ON
4TH MAY, 1987 AT ISLAMABAD

A meeting was held under the chairmanship of Mr. M. Sadiq Swati, Chief National Transport Research Centre in his office on 4th May, 1987 at 10:00 A.M. to discuss the PC-I regarding setting up of the Urban Transport Division in NTRC. List of the participants is annexed. Brief account of the proceedings is as follows:-

Chief NTRC explaining the background highlighted the deep concern expressed by the Prime Minister over the widespread public dis-satisfaction with urban transportation specially in larger cities in the country. He stated that the problem can only be overcome by dealing with it scientifically. However, unfortunately no solid work has so far been done and there was no basic data available to carry out detailed Urban Transportation Studies. Quoting examples from USA, he added that by their very nature urban transportation studies were not only extremely capital intensive but also very time consuming and required concerted efforts on a continuing basis. In this connection he referred to the KSDP transport related components for which a team of 5 consultants were engaged for a period of about 12-18 months to work on only selected aspects of urban transportation in Karachi. He pointed out that the present practice of hiring foreign consultants not only involved prohibitive costs, it also did not help in evolving an optimum solution, because of their ignorance of local problems, and at the same time left no residual expertise for follow-up action.

He added that the matter, among various other forums, was also discussed by the two Sub-Working Groups constituted by the Planning Commission on (a) Road Transport and (b) Transport Research in connection with the 7th Five Year Plan and both the Sub-Groups unanimously recommended the setting up of an Institute of Urban Transportation. The main Group on Research has also fully endorsed the recommendation of the Sub-Working Group. He informed that it was on the advice of the Research Advisory Committee of NTRC that a beginning has been proposed by setting it up as a division in the Centre. Accordingly, the PC-I of the scheme has been prepared. He clarified that only a very nucleus set up has been proposed as NTRC would provide the requisite back-up support. Also the PC-I was limited to only one year and thereafter it would be amalgamated under the main programme of the Centre. Chief NTRC while referring to the 'demand' for such an institute stated that the increasing number of requests being received almost regularly from cities like Peshawar, Lahore, Rawalpindi, Multan, Muzaffarabad, etc. for help in solving their traffic/transport problems fully established the need for the setting up of such an institute.

Chief T&C Section observed that although a number of studies have been conducted in major urban Centres from time to time, these have been dis-organized resulting in no real headway for finding a permanent solution of the problem. Also for almost all these studies, Federal Government has been requested to provide the funds. Referring to the KSDP World Bank financed studies/projects, he mentioned that all the 5 transport related components were being treated separately and were being conducted by different agencies which besides posing serious coordination

problems has resulted in overlaps. He observed that the present PC-I was conservative but this may be on account of the back-up support that would be provided by the NTRC itself. He felt the need for establishing contact points at the Provincial level. He pointed out that the reports prepared by one provincial agency were seldom made available to other provincial agencies and there was no coordination among agencies performing similar functions. While fully supporting the need for setting up of a federal agency to deal with the subject in the most cost effective and coordinated manner, he observed that NTRC being a federal agency has been called for help by various provincial departments/agencies and have been giving the technical advice with no problems of coordination.

Chief NTRC explained that the reason for conservative estimates was on account of the back-up support which would be provided by the NTRC. He stated that only the hard core team has been provided which has tremendously reduced the cost without sacrificing the overall objectives. He clarified that the Provinces would be fully associated.

The representative of the Government of Punjab stated that the Provincial Government be fully associated in the whole planning process so that whatever is planned gets ultimately implemented. He stated that there was no specific mention of the provincial Transport Departments in the PC-I.

Chief NTRC explained that since the Provincial Government was represented by the Planning and Development Department in the CDWP, routing has been done through them for overall coordination. He further explained that through the Research Coordination Committee of NTRC under the

chairmanship of the Secretary, Ministry of Communications with representation from all the concerned provincial departments, full coordination was ensured besides clearly identifying the areas of research. He explained that the specific proposals as per guidance of the Research Coordination Committee were prepared and technically scrutinized by the Research Advisory Committee of the Centre after which these were submitted to the Cost Appraisal Committee for financial approval.

The representative of the Punjab Government while fully endorsing the proposal referred to financing as a major problem for the provinces and proposed that similar Cells be set up at the provinces with federal financing. Chief NTRC explained that considering the costs, it would be practically impossible to go outrightly for such an arrangement. He stated that it was precisely on account of the lack of finances with the Provinces that the present proposal has been formulated which can handle the job in a much more cost effective manner for the benefit of all the provinces. Besides it would ensure the gradual development of the requisite expertise to handle such specialized jobs.

Chief T&C Section proposed that an Urban Transport Coordination Sub-Committee be set up with representation from all the concerned provincial Transport Departments and representatives from major cities including Mayors so that they could get together and identify the problematic areas which could be of great help in directing the research efforts. This was greatly appreciated by all the concerned and it was agreed that an Urban Transport Coordination Sub-Committee be set up under the chairmanship of Chief T&C Section with representation from all the concerned agencies.

To the clarification from the Joint Secretary, Ministry of Communications regarding the inclusion of the mass transit system in the scope of the work, Chief NTRC replied in the affirmative. The Joint Secretary, Ministry of Communications expressed the view that it was a commendable project and should be implemented.

The matter regarding the processing of the scheme and its time span also came under discussion and Chief NTRC explained that presently the scheme was within the sanctioning competence of the DDWP but it involved an area which was of direct relevance to the Provinces and referred to the observation of the Secretary, Planning and Development Division who had observed that irrespective of sanctioning powers, the scheme should be placed before the CDWP.

The representative of the Government of Punjab stated that such schemes which cover a wider area of interest are usually considered by the higher forums although they may be within the sanctioning competence of the lower forums.

Chief T & C Section observed that the period of the project should be at least 2 years. Chief NTRC explained the rationale and stated that the programme would be incorporated in the main programme of NTRC for 7th Plan. However, it was considered desirable and more practical that the period of the scheme should be kept as 6 years instead of one year and once the Division has been fully established, its programme can then be amalgamated with the main programme of the NTRC. +

CONSENSUS:

As a result of the detailed deliberations the following

consensus emerged:-

- (1) The scheme was unanimously endorsed.
- (2) The time frame for the scheme should be six years instead of the proposed one year after which it may be merged with the main programme for all the Divisions of NTRC.
- (3) Notwithstanding the fact that the scheme falls within the sanctioning competence of the DDWP, it would be processed through the CDWP on the grounds that it is of great concern to all the Provincial Governments.
- (4) An Urban Transport Coordination Sub-Committee be set up under the chairmanship of the Chief, Transport and Communication Section, Planning Commission with representation from all the concerned Provincial Departments, Mayors of major cities, etc. for identifying the problematic areas and corrective actions required for improving urban transport situation in the country.

LIST OF PARTICIPANTS

- (1) Mr. M. Sadiq Swati,
Chief NTRC,
Planning Commission,
Islamabad.
- (2) Mr. Muhammad Zafarullah Khan,
Joint Secretary (Planning),
Ministry of Communications,
Islamabad.
- (3) Mr. Malik Muhammad Saeed Khan,
Chief(T&C),
Planning Commission,
Islamabad.
- (4) Mr. Sibtain Fazal Halim,
Additional Secretary,
Planning & Development Department,
Government of Punjab,
Lahore.
- (5) Mr. Abdul Majeed,
Deputy Chief NTRC,
Planning Commission,
Islamabad.
- (6) Mr. M. Kazim Idris,
Deputy Chief NTRC,
Planning Commission,
Islamabad.

URBAN TRANSPORT WING IN N.T.R.C.MINUTES OF THE MEETING HELD WITH PROVINCIAL GOVTS.
OF SIND, NWFP AND BALUCHISTAN ON 14TH JULY, 1987

A meeting was held under the chairmanship of Mr. M. Sadiq Swati, Chief NTRC in his office on 14th July, 1987 at 10:00 A.M. to discuss the PC-I regarding the setting up of an Urban Transport Division in NTRC with the Provincial representatives from Sind, NWFP and Baluchistan. List of participants is annexed.

2. Chief NTRC explained the background and the purpose of the meeting. He stated that since the provincial representatives from Sind, NWFP and Baluchistan could not attend the meeting held on 4th May, 1987, the present meeting was called to solicit their views on the subject scheme which was of direct concern and relevance to all the provinces.

3. Chief NTRC highlighted the deep concern expressed by the Prime Minister over the widespread public dis-satisfaction with urban transportation specially in larger cities in the country. He stated that the problem can only be overcome by dealing with it scientifically. However, unfortunately no solid work in this field has so far been done and there was no basic data available to carry out detailed Urban Transportation Studies. He added that the Master Plans prepared by most of the Development Authorities in the 1960s were confined to land use and socio-economic aspects only with little mention of the transportation aspect which over the years has assumed a very important position specially in the urban context.

4. Quoting examples from USA, UK, he added that by their very nature urban transportation studies were not only extremely capital intensive but also very time consuming and required concerted efforts on a continuing basis. He also referred to

teams of consultants were engaged for a period of about 12-18 months to work on only a few selected aspects of urban transportation in Karachi. He pointed out that due to complexity of urban transportation, JICA had not agreed to its inclusion in the TOR of the National Transport Plan Study sponsored by them.

5 He added that the present practice of hiring foreign consultants not only involved prohibitive costs, it also did not help in evolving an optimum solution, because of their ignorance of local problems, and at the same time left no residual expertise for follow-up action.

6 Chief NTRC explained further that among various other forums the matter was also discussed by the two Sub-Working Groups constituted by the Planning Commission on (a) Road Transport and (b) Transport Research in connection with the 7th Five Year Plan and both the Sub-Groups unanimously recommended the setting up of an Institute of Urban Transportation. The main Group on Research has also fully endorsed the recommendation of the Sub-Working Group. He informed that it was on the advice of the Research Advisory Committee of NTRC that a beginning has been proposed by setting it up as a division in the Centre. Accordingly, the PC-I of the scheme has been prepared. He clarified that only a very nucleus set up has been proposed as NTRC would provide the requisite back-up support. Also the PC-I was initially limited to only one year but on the advice of the participants of the 4th May, 1987 meeting it would now be expanded over a 6-year period. Chief NTRC while referring to the 'demand' for such an institute stated that the increasing number of requests being received almost regularly from cities like Peshawar, Lahore, Rawalpindi, Multan, Muzaffarabad, etc. for help in solving their traffic/transport problems fully established the need for the setting up of such an institute.

The views expressed by the provincial representatives are described below :-

(1) Government of Sind

The provincial representative fully endorsed the setting up of an Urban Transport Division in NTRC and stated that it was high time that informed decisions were made based on factual information. He stated that policy decisions based on research would also help in removing the 'Shyness' on the part of the implementation/enforcement agencies as they would have the requisite confidence to go ahead. He said that at present the main problem related to lack of an institutional arrangement for formulating a policy package to be followed/implemented by all the concerned. Regarding the time frame for the project he endorsed that the project should be spread over a period of 6 years after which it may be amalgamated with the main project. He stated that a number of agencies like KDA, KMC, etc. were operating in Karachi and similar cells may have to be set up at the provincial level. It was however felt that these cells should preferably be located in the Transport Department since their basic work would be policy oriented based on actual research. However, there was a need to take into account the fact that while the manpower in the Development Agencies worked on a permanent basis with them, manpower in other departments was subject to frequent transfers.

(2) Government of Baluchistan

The representative of the Government of Baluchistan stated that at present there was no publicly operated urban transport system in the Province. Leaving the urban transport entirely at the mercy of the private sector was not conducive even from the law and order situation point of view. Also in some cases it has given rise to tribal rivalries.

Chief NTRC explained that the basic objective of the Studies Unit would be to identify and quantify the weaknesses and strengths in the existing set up and suggest remedial actions based on actual research and this approach would evoke the requisite

confidence among the decision-makers to make timely decisions. At present because of the lack of factual information, the element of subjectivity was too prominent and often led to wrong decisions. He stated that work on all modes of urban transport (including the walking mode) would be covered in detail by the proposed institute.

The scheme was fully endorsed by the Provincial representative and it was also agreed that time frame should be six years.

(3) Government of NWFP

The Provincial representative stated that at present as regards urban transportation there was no institutional arrangement from whom one can seek the expert opinion. He observed that although there were a number of agencies in the urban set up, these lacked coordination. Also foreign consultants were hired but they have not been of any real help. He expressed confidence in the work done by the Centre and stated that NTRC has established itself as a pioneer in various fields of transport planning/ engineering.

To a query regarding the relationship of the proposed Urban Transport Studies Unit with the NTRC, Chief NTRC explained that the proposed Unit would be part of the National Transport Research Centre alongwith the Road Research Division, with the existing organization re-named as the Operations Research Division. He added that the process of expertise development is gradual and it would be necessary to have focal points at the Provincial Level where manpower could be deputed to work in these cells on a permanent basis.

While fully endorsing the proposal, he added that NTRC should assume the 'teaching role' and build up expertise in the Provinces where there was the real need to ensure implementation and there should be 4 Provincial cells, one each in every Province. He suggested that the Provincial Urban Development Authorities should be closely associated with the proposed institution.

A copy of the minutes of the meeting held on 4th May, 1987 was provided to the Provincial Representatives (Sind and Baluchistan) and Chief stated that the proposal was fully endorsed by the Punjab Government who desired that similar cells be set up at the provinces with federal financing. He explained that although it may not be practically viable to go outrightly for a full fledged arrangement, but nevertheless there may be an urgent need to set up appropriate contact points at the provincial level by the respective Provinces so that expertise could be gradually built up to handle the specialised job of urban transport planning.

CONSENSUS As a result of detailed deliberations, the following consensus emerged :-

- (1) The scheme was unanimously endorsed.
- (2) The time frame for the scheme should be six years instead of the proposed one year after which it may be merged with the main programme for all the Divisions of NTRC.
- (3) Provincial Urban Development Authorities should act as local contact point and efforts should be made to develop proper institutional arrangements within these authorities to act as counter part to the proposed federal institute.

LIST OF PARTICIPANTS

- (1) Mr. M. Sadiq Swati,
Chief NTRC,
Planning Commission,
Islamabad
 - (2) Mr. Muhammad Yousaf,
Secretary Transport,
Government of Baluchistan,
Quetta
 - (3) Mr. M. Amir Ansari,
Secretary Transport,
Provincial Transport Authority,
Government of Sind,
Karachi
 - (4) Mr. Abdul Jalil Moghal,
Additional Secretary,
Planning & Development Department,
Government of NWFP,
Peshawar
 - (5) Mr. Abdul Majid,
Deputy Chief NTRC,
Planning Commission,
Islamabad
 - (6) Mr. M. Kazim Idris,
Deputy Chief NTRC,
Planning Commission,
Islamabad
-

4th Meeting of the Inter - Ministerial Committee (IMC) of NTRC held under the Chairmanship of Dr. Mahbub-ul-Haq, Federal Minister for Planning Development and Commerce on 24.9.87 at Islamabad

Relevant Extracts

Item No. 9 : Urban Transport Wing in N.T.R.C.

Chief NTRC explained that as a follow up of the decisions taken in the 3rd Inter-Ministerial Committee meeting of NTRC regarding the laying of more emphasis on the urban transport problems in the country, NTRC undertook a number of Urban Transport Studies. Since the subject of urban transportation is assuming great importance, the matter was also considered by the Working Group on Science and Technology, the two Sub-Groups on Road Transport and Transport Research as well as by the Research Advisory Committee of the Centre and it was unanimously recommended by all of them that the fast deteriorating urban transport situation called for a proper institutional arrangement for dealing with the problem and suggested an Urban Transport Division may be set up with NTRC. Accordingly, NTRC drew up a PC-I at an estimated cost of Rs. 6.5 million spread over a period of one year. The matter was also discussed with the Provincial Governments who have urged that the project should be at least six years duration and have agreed to provide maximum possible support in terms of office accommodation and local staff. Accordingly, the cost was now estimated to be about Rs. 30 million. To the observation of the Additional Secretary (Finance) that the urban transport work may be gradually taken up, Chief NTRC explained that the subject of urban transport requires a multi-disciplinary team of engineers, architects, planners, economists, Systems Analyst and management experts, and it would not be possible to do the needful by merely designating an officer of NTRC to work on it.

The Chairman observed that the amount of Rs. 30 million was very reasonable considering the importance which the subject of urban transportation demands. He however added that urban transportation was one of the major thrust areas, the province should be fully associated and the matter regarding part financing of the work undertaken for the provinces should also be looked into.

DECISION :

The provincial governments should bear at least 20% of the cost of the urban transport studies to be undertaken by the Centre.

URBAN TRANSPORT Wing IN N.T.R.C.

MINUTES OF THE MEETING HELD WITH C.D.A, ADMINISTRATOR
ISLAMABAD CAPITAL TERRITORY. AND PROVINCIAL TRANSPORT AUTHORITY
ON 15TH MARCH, 1988

A meeting was held in the office of Chief NTRC on 15th March, 1988 at 09:00 a.m. to discuss the Work Plan for undertaking the preparation of detailed Transportation Plan for Rawalpindi and Islamabad. The list of participants is annexed. Brief account of the proceedings is as follows :-

Chief NTRC explaining the background highlighted the deep concern expressed by the Prime Minister over the wide public dis-satisfaction with urban transportation specially in larger cities in the country. He stated that the problem can only be overcome by dealing with it scientifically. However, unfortunately no solid work has so far been done and there was no basic data available to carry out detailed Urban Transportation Studies. Quoting examples from USA, he added that by their very nature urban transportation studies were not only extremely capital intensive but also very time consuming and required concerted efforts on a continuing basis. In this connection he referred to the transport related components in Karachi Special Development Programme for which 5 teams of consultants were engaged for a period of about 12-18 months to work on only selected aspects of urban transportation and would cost about Rs. 350 million. He was of the view that the present practice of hiring foreign consultants not only involved prohibitive costs, it also did not help in

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evolving an optimum solution, because of the ignorance of foreign 'Experts' regarding local problems, and at the same time left no residual expertise for follow-up action. He explained that in many cases the 'Experts' did not possess either the relevant qualifications or experience or both. He also briefed the participants regarding the endorsement of the proposal by Sub-Working Groups constituted by the Planning Commission on (a) Road Transport and (b) Transport Research in connection with 7th Five Year Plan.

He further stated that the matter was deliberated upon by the Research Advisory Committee of the Centre, all the concerned federal ministries, the four provincial governments and the views of the Secretary Planning and Development Division. Accordingly a PC-I for the setting up of an Urban Transport Division in the National Transport Research Centre has been prepared at an estimated cost of Rs.29.95 million spread over a period of five years.

The representative of the CDA stated that it was a very useful project and a step in the right direction. He informed that the matter was being taken up at the level of the Board for their approval. To the clarification sought by the CDA representative regarding the financial involvement of CDA and the coordinating mechanism between the C.D.A. and the Centre, Chief NTRC explained that there were two views on the subject of financial involvement : (a) the sponsors should partly pay for it to ensure their interest and participation, (b) participation of sponsors to be in 'kind' rather than in 'cash'. He was personally in favour of 2nd alternative. As regards co-ordination, the concerned agencies should depute one or two officials to be members of the Study Team.

The representative of CDA agreed with the view point and stated that CDA would like to depute their personnel which would not only ensure transfer of expertise but also an effective coordination. The matter of coordination was further discussed and it was agreed that in order to have a continuing feed back system, a Coordinating Committee may be set up preferably at the 'working level' which can meet regularly to ensure full coordination.

The representative of the Islamabad Capital Territory stated that it was a very sound proposal and a very good PC-I has been prepared which clearly pin-points the specific areas. He observed that since the Islamabad Capital Territory has been granted the status of a Provincial Government for all practical purposes w.e.f. January, 1981 they should have been associated at the time of the meeting with the Provincial Governments. He pointed out that the two important areas relate to the training of manpower for the development of requisite expertise and a complete involvement of the provincial governments. He suggested setting up such cells at all the provincial levels, under the guidance of NTRC. To the query of the ICT representative relating to the deputing of one Deputy Chief to each Provincial governments, it was explained that the subject of urban transportation was of a multi-disciplinary nature and therefore deputing a Deputy Chief would not be of any real assistance. The representative of the ICT pointed out that only two cities are proposed to be studied during next five years and it would not be advisable to ignore the problems of cities like Gujranwala, Multan, Sialkot, etc. where the transportation problems are rapidly deteriorating and in 5-6 years would become un-manageable. These views were fully endorsed and it was considered desirable that the provincial governments

be moved to set up nucleus cells in the respective Development Authorities with technical assistance provided by NTRC.

The Secretary RTA Rawalpindi fully endorsed the project and assured to extend full support.

CONSENSUS :

PC-I was fully endorsed including the proposed Work Plan. It was however agreed that it was not enough to provide for the preparation of Transportation Plan only for 2 cities and more cities need to be attended at the earliest. It was, therefore felt desirable that this objective can be met if the respective provincial governments are also moved to develop institutional arrangements with guidance and assistance from NTRC. To begin with Urban Transport Cells be set up in the Provincial Urban Development Authorities.

LIST OF PARTICIPANTS

1. Mr. M. Sadiq Swati,
Chief NTRC
Planning Commission,
Islamabad
 2. Mr. Maqbool Ilahi,
Deputy Director General (P)
Capital Development Authority,
Islamabad
 3. Mr. Shahid Najam,
Director (F),
Administrator Islamabad
Capital Territory,
Islamabad
 4. Mr. Bashir Ahmad Dogar,
Secretary,
Regional Transport Authority,
Rawalpindi
 5. Mr. M. Kazim Idris,
Deputy Chief NTRC
Planning Commission
Islamabad
-

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CAPITAL DEVELOPMENT AUTHORITY
(Planning Wing)

No. CDA/PLW-TEC(29)/88/167 Islamabad, June 16, 1988.


To

Mr. Sadiq Swati,
Chief, NTRC,
Ground floor, Block 4-B,
F-7 Markaz,
Islamabad.

Sub:- URBAN TRANSPORT DIVISION IN NTRC.

Further to the meeting held on March 15, 1988 on the subject noted above, the Capital Development Authority fully endorses the proposed scheme including the work plan, as the outcome of the study would help the Authority draw a comprehensive traffic plan of the twin cities of Rawalpindi and Islamabad.

It is requested that NTRC may consider the association of one or two officers of the Planning Wing of CDA with the study team of the NTRC to receive on-the-job training.


(MAQBOOL ILAHI)
DDG (Planning)

MINUTES OF THE CDWP MEETING HELD ON
10TH AUGUST, 1988

Item No. 24 : PC-II National Transport Research Centre
(Phase-III) - (Cost Rs. 89.55 million -
F.E.C. : Rs. 1.0 Million)

Chief T&C Section explained the background and various stages through which the project had passed since it was considered by the CDWP in its meeting held on 2.5.1988. He stated that the Evaluation Committee set up by the CDWP had carried out a detailed evaluation of the work done carried out by the Centre which showed that the output of the Centre in terms of number of reports and pages respectively was 3 to 4 times that of the foreign experts, who had worked with the Centre during the period 1976-87. The Evaluation Committee had fully endorsed the programme of NTRC as mentioned in PC-II (Phase-III). He, however, felt that since the subject of urban transportation was of a highly specialized nature, it would be necessary to prepare a detailed PC-I separately and proposed that the urban transportation studies be deleted from the project under consideration which would reduce the size of the present PC-II to Rs. 59.550 million (FEC : Rs. 1.00 million). He added that the Ministry of Finance had also not favoured the inclusion of Urban Transport Studies in the PC-II.

To the query of the Chairman, Chief NTRC explained that only a skelban permanent staff had been provided at the Centre the expenses of which was met from the Revenue Budget. The present project only provided for survey staff, travel and stationery, etc.

To the observation of the Chairman that the employment of staff on contract basis would result in losing the trained manpower, the Chief NTRC explained that this arrangement had its own advantages as it was most cost effective and since efficient workers were retained quality work was also ensured. Besides, this arrangement did not cause any permanent financial burden to the Centre.

In reply to the observation of the representative of the Ministry of Finance regarding the size of the research programme and staff recruitment problem the Chief NTRC explained that the research programme had been proposed by a Committee under the Chairmanship of Secretary, Ministry of Communications with representatives from all the concerned federal and provincial transport agencies. As regards staff, the position was much better than during the Sixth Plan.

The Secretary (Communications) observed that the National Transport Policy emanated from the research work done by the Centre and strongly recommended the approval of the research programme of the Centre as the only source for shaping future policies and programme.

To the query of the Chairman regarding the expenditure incurred on research work during Phase-II (1983-88), Chief NTRC informed that about Rs. 22 million were spent during this period. He elaborated that the proposed increase was due to the increased Research Staff and the provision of about Rs. 20 million for the Traffic Count Programme.

The Chairman observed that keeping in view the research expenditure during the period 1983-88, the research programme may be reduced to bring the overall size of PC-II to Rs. 50 million.

The representative of Government of Punjab pointed out that they had certain reservations regarding the Evaluation Report. Secretary (Planning) observed that Government of the Punjab had expressed similar views in the last meeting also when they were asked to convey them in writing but that had not been done so far. The Chairman directed that they may be placed on record as and when they were received.

DECISION :

- 1) The PC-II NTRC Phase-III covering the period 1988-93 was approved at a total cost of Rs. 50 million including FEC of Rs. 1.00 million.
- 2) The provision for research studies was reduced (from Rs. 24.00 to Rs. 14.450 million) accordingly.
- 3) The provision of Rs. 30 million envisaged for Urban Transport Studies in the PC-II was deleted.

5th Meeting of the Inter-Ministerial Committee
(IMC) of NTRC held under the chairmanship of
Mr. A. G. N. Kazi, Deputy Chairman, Planning
Commission on 23.11.1988 at Islamabad

Relevant Extracts

Item No. 9 Urban Transport Wing in NTRC

Senior Chief NTRC explained the need for a proper institutional arrangement to look into the problem of urban transport on a continuing basis and explained the salient features of the PC-I amounting to Rs. 33.30 million (FEC : Rs. 5 million) prepared by the Centre with the full involvement and concurrence of all the Provincial Governments, the Ministry of Communications and other concerned agencies. The Secretary Communications stated that conceptually it was a very useful scheme and should be taken up to solve the urban transport problem which over the recent years has emerged as a major problem with multi-dimensional aspects in a major city like Karachi.

Decision

The PC-I should be processed for approval through the CDWP.

URBAN TRANSPORT WING IN N.T.R.C.

Annex-'B'

1. Details of Salary Expenditure/Field Surveys

Sl. No.	Description	EPS NO.	(Rupees)				Total	Remarks
			1989-90 01.7.89 - 30.6.90	1990-91 01.7.90 - 30.6.91	1991-92 01.7.91 - 30.6.92	1992-93 01.7.92 - 30.6.93		
(A) REGULAR STAFF								
1.	Chief	20	138,805	141,625	144,445	147,265	572,140	Further Break
2.	Deputy Chief	19	556,175	568,475	580,775	593,075	2,298,500	down may be
3.	Assistant Chief	18	388,965	400,665	412,365	424,065	1,626,060	seen in Annex-
4.	Research Officer	17	597,290	615,890	634,490	653,090	2,500,760	B.1 and B.2.
5.	Superintendent	16	28,383	29,643	30,903	32,163	121,092	Further break
6.	Stenographer	15	150,438	155,550	160,662	165,774	632,424	down may be
7.	Stenotypist	12	210,880	217,120	223,360	229,600	880,960	seen in Annex-
8.	Assistant	11	19,858	20,410	20,962	21,514	82,744	B.3 and B.4.
9.	Draughtsman	11	19,858	20,410	20,962	21,514	82,744	
10.	Lower Division Clerk	5	31,094	31,694	32,294	32,894	127,976	
11.	Nalb Qasid	1	214,665	217,005	219,345	221,685	872,700	
Sub-Total (A) :-			2,356,411	2,418,487	2,480,563	2,542,639	9,798,100	
(B) SURVEY STAFF/FIELD SURVEYS								
1.	Investigators	16	283,830	296,430	309,030	321,630	1,210,920	Further Break
2.	Enumerators	11	297,870	306,150	314,430	322,710	1,241,160	down may be
3.	Field Surveys		1,000,000	1,500,000	1,500,000	1,500,000	5,500,000	seen in Annex- B.5 and B.6
Sub-Total (B) :-			1,581,700	2,102,580	2,123,460	2,144,340	7,952,080	
Total (A + B) :-			3,938,111	4,521,067	4,604,023	4,686,979	17,750,180	

URBAN TRANSPORT WING IN N.T.R.C.

Annex-B.1

SALARY CALCULATIONS FOR DIFFERENT PAY SCALES FOR THE PROJECT PERIOD (EPS-17 (C 2C)).

No. of Emplo- ees	PER MONTH PAY																Total
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	
	1989 - 90	1990 - 91	1991 - 92	1992 - 93	(Rupees)												
20	1	11,430	11,665	11,900	12,135	12,370	57,150	81,655	58,325	83,300	59,500	84,945	60,675	86,590	572,140	5	
19	+Q	3	9,478	9,683	9,888	10,093	10,298	142,170	203,343	145,245	207,648	148,320	211,953	151,395	216,258	1,426,332	
	-Q	2	8,658	8,863	9,068	9,273	9,478	86,580	124,082	88,630	126,952	90,680	129,822	92,730	132,692	872,168	2,298,500
18	+Q	3	6,681	6,876	7,071	7,266	7,461	100,215	144,396	103,140	148,491	106,065	152,586	108,990	156,681	1,020,564	
	-Q	2	5,901	6,096	6,291	6,486	6,681	59,010	85,344	60,960	88,074	62,910	90,804	64,860	93,534	605,496	
17	+Q	5	5,197	5,352	5,507	5,662	5,817	129,925	187,320	133,800	192,745	137,675	198,170	141,550	203,595	1,324,780	
	-Q	5	4,577	4,732	4,887	5,042	5,197	114,425	165,620	118,300	171,045	122,175	176,470	126,050	181,895	1,175,980	
Total :-																6,997,460	
+Q = With Qualifications Allowance																1,817,495	
-Q = Without Qualification Allowance																1,772,075	
Total :-																1,817,495	
Total :-																6,997,460	

BREAKDOWN OF SALARY CALCULATION FOR DIFFERENT PAY SCALES

(BPS-17 TO 20)

BPS	PAY SCALE	BASIC PAY								ALLOWANCES								TOTAL PAY (PAY + ALLOWANCES)														
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.									
		01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.92	30.11.93	House Rent	Conv.Allow.	Research	Design	Qualific- ations	Secret- ariat Allowance	Senior Post	Entertainment	Total with Qualification	Total without Qualification	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.91	30.11.92	
20	4,900-235-6,780	4,900	5,135	5,370	5,605	5,840	2,205	305	800	700	940	200	400	6,530	-	11,430	11,665	11,900	12,135	12,370	-	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.91	30.11.92	
19	4,130-205-5,770	4,130	4,335	4,540	4,745	4,950	1,858	150	800	600	820	220	-	5,348	4,528	+Q	9,478	9,683	9,888	10,093	10,298	-	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.91	30.11.92
18	2,710-195-4,660	2,710	2,905	3,100	3,295	3,490	1,219	150	542	500	780	780	-	3,971	3,191	+Q	6,681	6,876	7,071	7,266	7,461	-	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.91	30.11.92
17	2,065-155-3,925	2,065	2,220	2,375	2,530	2,685	929	150	413	400	620	620	-	3,132	2,512	-Q	5,197	5,352	5,507	5,662	5,817	-	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.91	30.11.92

+Q = With Qualification Allowances

-Q = Without Qualification Allowances

SALARY CALCULATION FOR DIFFERENT PAY SCALES FOR THE PROJECT PERIOD
(BPS - 1 TO 16)

Basic Pay Scale	No. of Employees	TOTAL PAY (NO. OF EMPLOYEES X PER MONTH PAY NO. OF MONTH)																Remarks
		1989-90				1990-91				1991-92				1992-93				
PER MONTH PAY		3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.		
1.	2.	01.07.89	01.13.89	01.13.90	01.13.91	01.13.92	01.07.89	01.13.89	01.07.90	01.13.90	01.07.91	01.13.91	01.07.92	01.13.92	01.07.93	01.13.93		
16	1	2,304	2,409	2,514	2,619	2,724	11,520	16,863	12,045	17,598	12,570	18,333	13,095	19,068	121,092			
15	6	2,048	2,119	2,190	2,261	2,332	61,440	88,998	63,570	91,980	65,700	94,962	67,830	97,944	632,424			
12	10	1,727	1,779	1,831	1,883	1,935	86,350	124,530	88,950	128,170	91,550	131,810	94,150	135,450	880,960			
11	1	1,628	1,674	1,720	1,766	1,812	8,140	11,718	8,370	12,040	8,600	12,362	8,830	12,684	82,744			
11	1	1,628	1,674	1,720	1,766	1,812	8,140	11,718	8,370	12,040	8,600	12,362	8,830	12,684	82,744			
5	2	1,281	1,306	1,331	1,356	1,381	12,810	18,284	13,060	18,634	13,310	18,984	13,560	19,334	127,976			
1	15	1,185	1,198	1,211	1,224	1,237	88,875	125,790	89,850	127,155	90,825	128,520	91,800	129,885	872,700			
Total :-		277,275	397,901	407,617	417,333	427,049	2,800,640	298,095	251,155	708,488	725,144	298,095	427,049	2,800,640	725,144			

URBAN TRANSPORT WING IN N.T.R.C.

Annex-B.4

BREAKDOWN OF SALARY CALCULATIONS OF DIFFERENT PAY SCALES

(BPS - I TO 16)

1.	2.	Basic Pay								Allowances					Total Pay (Pay + Allowances)					18.						
		3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.										
Basic Pay Scale	Pay Scale	01.07.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.92	30.11.93	House Rent	Convey- ance	Sectt.	Medical	Total	01.07.89	30.11.89	01.12.89	30.11.90	01.12.90	30.11.91	01.12.91	30.11.92	01.12.92	30.11.93	Remarks
16	1,350-105-2,925	1,350	1,455	1,560	1,665	1,770	1,875	1,980	2,085	2,190	608	76	270	-	954	2,304	2,409	2,514	2,619	2,724	2,829	2,934	3,039	3,144	3,249	
15	1,165-71-2,380	1,165	1,236	1,307	1,378	1,449	1,520	1,591	1,662	1,733	524	76	233	50	883	2,048	2,119	2,190	2,261	2,332	2,403	2,474	2,545	2,616	2,687	
12	970-52-2,010	970	1,022	1,074	1,126	1,178	1,230	1,282	1,334	1,386	437	76	194	50	757	1,727	1,779	1,831	1,883	1,935	1,987	2,039	2,091	2,143	2,195	
11	910-46-1,830	910	956	1,002	1,048	1,094	1,140	1,186	1,232	1,278	410	76	182	50	718	1,628	1,674	1,720	1,766	1,812	1,858	1,904	1,950	1,996	2,042	
5	700-25-1,200	700	725	750	775	800	825	850	875	900	315	76	140	50	581	1,281	1,306	1,331	1,356	1,381	1,406	1,431	1,456	1,481	1,506	
1	600-13-860	600	613	626	639	652	665	678	691	704	270	76	189	50	585	1,185	1,198	1,211	1,224	1,237	1,250	1,263	1,276	1,289	1,302	

URBAN TRANSPORT WING IN N.T.R.C.

Annex-B.6

BREAKDOWN OF SALARY CALCULATIONS OF DIFFERENT PAY SCALES

1.	2.	(Rupees)										17.					
		BASIC PAY					ALLOWANCES						TOTAL PAY (PAY + ALLOWANCES)				
EPS	Pay Scale	01.07.89	01.12.89	01.12.90	01.12.91	01.12.92	House	Conve	Sectt.	Medical	Total	01.07.89	01.12.89	01.12.90	01.12.91	01.12.92	Total
		30.11.89	30.11.90	30.11.91	30.11.92	30.11.93	Rent	ance				30.11.89	30.11.90	30.11.91	30.11.92	30.11.93	
	'2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	
16	1,350-105-2,925	1,350	1,455	1,560	1,665	1,770	608	76	270	-	954	2,304	2,409	2,514	2,619	2,724	57
11	910-46-1,830	910	956	1,002	1,048	1,094	410	76	182	50	718	1,628	1,674	1,720	1,766	1,812	57

URBAN TRANSPORT WING IN N.T.R.C.

Annex-'C'

2. DETAILS OF OTHER EXPENDITURE

S. No.	Description	(Rupees)						Remarks
		01.07.88 30.06.90	01.07.89 30.06.91	01.07.91 30.06.92	01.07.92 30.06.93	Total		
1.	Transport (POL)	100,000	100,000	100,000	100,000	400,000	* Office estimated area is 14,000 sq.ft. and at rate of Rs.3.50/sq.ft the monthly rent is Rs. 49,000/-.	
2.	Communications (Telephone)	100,000	100,000	100,000	100,000	400,000		
3.	Utilities	60,000	60,000	60,000	60,000	240,000		
4.	Stationery	50,000	50,000	50,000	50,000	200,000		
5.	Printing	50,000	50,000	50,000	50,000	200,000		
6.	Books Journals and Newspaper, etc.	25,000	25,000	25,000	25,000	100,000		
7.	Contingent Staff	25,000	25,000	25,000	25,000	100,000		
8.	Uniform and Liveries	10,000	10,000	10,000	10,000	40,000		
9.	Office Rent*	588,000	588,000	-	-	1,176,000		
10.	Building Maintenance	-	-	66,000	66,000	132,000		
11.	Other Expenditure/Maintenance of Equipment	75,000	75,000	75,000	75,000	300,000		
Total :		1,083,000	1,083,000	561,000	561,000	3,288,000		

* Starting Office Rent

URBAN TRANSPORT WING IN N.T.R.C.

Annex-'D'

D 3. DETAILS OF DURABLE GOODS

S. No.	Description	(Rupees)					Remarks
		1989 - 90 01.07.89-30.6.90	1990 - 91 01.07.90-30.06.91	1991 - 92 01.07.91-30.06.92	1992 - 93 01.07.92-30.06.93	Total	
1.	2.	3.	4.	5.	6.	7.	8.
1.	Transport	500,000	-	-	-	500,000	Ford Wagon, Suzuki Car
2.	Machinery and Equipment	200,000	-	-	-	200,000	
3.	Typewriter (16 Nos.)	160,000	-	-	-	160,000	
4.	Photocopying Machine	100,000	-	-	-	100,000	
5.	Other Office Machine	100,000	-	-	-	100,000	
6.	Micro Computer and Software	200,000	-	-	-	200,000	
7.	Furniture and Fixture	453,000	-	-	-	453,900	Details at Annex-'F'
Total :-		1,713,900	-	-	-	1,713,900	

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URBAN TRANSPORT WING IN N.T.R.C.

Annex-'E'

SPACE REQUIREMENTS AND COST OF OFFICE BUILDING

S. No.	Description	Unit Space (Sq.ft.)	Total Space (Sq.ft.)
1.	2.	3.	4.

1. SPACE REQUIREMENTSA. STAFFNo. of Posts

1. Chief	1	320	320
2. Deputy Chief	5	240	1,200
3. Assistant Chief	5	160	800
4. Research Officer	10	160	1,600
5. Superintendent	1	160	160
6. Stenographer	6	80	480
7. Stenotypist	10	80	800
8. Assistant	1	80	80
9. Draughtsman	1	160	160
10. L.D.C.	2	80	160
11. Naib Qasid	15	-	-
12. Survey Staff	25	60	1,500
B. STORE			600
C. RECORD ROOM			400
D. TOILETS			960
E. MEETING HALL			800

TOTAL :- 9,960

3,984

F. CIRCULATION AREA @ 40% OF THE TOTAL AREA

GRAND TOTAL : 13,944

SAY 14,000 sq.ft.

2. OFFICE BUILDING COST

UNIT COST OF CONSTRUCTION = Rs. 300/- per sq.ft.

TOTAL COST OF CONSTRUCTION = Rs. 300 x 14,000 = RS. 4,200,000

URBAN TRANSPORT WING IN N.T.R.C.

Annex-'F'

DETAILS OF FURNITURE REQUIREMENTS AND COST ESTIMATES

		(Rupees)	
<u>S.No.</u>	<u>Description</u>	<u>Approx. Cost</u>	<u>Total Cost</u>
I. CHIEF - 1			
			Qty
1.	Revolving Chair	2,500	1
2.	Visitor Chairs	400	6
3.	Sofa Set	5,000	1
4.	Table	3,000	1
5.	Centre Table Set	1,200	1
6.	Rack	1,000	1
7.	Book Shelf	1,000	1
8.	File Cabinet	1,700	1
			Total :-
			17,800
II. DEPUTY CHIEFS - 5			
1.	Chairs (Revolving)	2,000	5
2.	Chairs (Visitors)	400	15
3.	Chairs (Sofa)	1,000	10
4.	Table	2,500	5
5.	Centre Table	1,000	5
6.	File Cabinet	1,700	5
7.	Rack	1,000	5
8.	Book Shelf	1,000	5
			Total :-
			62,000
III. ASSISTANT CHIEFS - 5			
1.	Chairs (Cushioned)	700	5
2.	Chairs (Visitors)	400	10
3.	Table	2,000	5
4.	Steel Almirah	1,700	5
5.	File Cabinet	1,700	5
6.	File Rack	1,000	5
7.	Book Shelf	1,000	5
			Total :-
			44,500
IV. RESEARCH OFFICERS - 10			
1.	Chairs (Cushioned)	700	10
2.	Chairs (Visitors)	400	20
3.	Table	2,000	10
4.	Steel Almirah	1,700	10
5.	File Cabinet	1,700	10
6.	File Rack	1,000	10
7.	Book Shelf	1,000	10
			Total :-
			89,000
V. STENOGRAPHERS - 6			
1.	Steno Chairs	500	6
2.	Steno Table	1,500	6
3.	Chair (Visitors)	400	6
4.	File Cabinet	1,700	6
5.	File Rack	1,000	6
			Total :-
			30,600
VI. SUPERINTENDENT - 1			
1.	Chair	600	1
2.	Chairs (Visitors)	400	2
3.	Table	1,800	1
4.	File Rack	1,000	1
5.	Almirah	1,700	1
			Total :-
			5,900
VII. STENOYPIST - 10			
1.	Steno Chairs	400	10
2.	Steno Tables	1,500	10
			Total :-
			19,000

S.No.	Description		Approx. Cost	Total Cost
VIII.	<u>ASSISTANT - 1</u>	Qty		
	1. Chair	1	400	400
	2. Table	1	1,500	1,500
	3. File Rack	1	1,000	1,000
				Total :- 2,900
IX.	<u>DRAUGHTSMAN - 1</u>			
	1. Drawing Table	1	2,000	2,000
	2. Drawing Chair	1	1,000	1,000
	3. Almirah	1	2,000	2,000
	4. Chair (Visitor)	1	400	400
				Total :- 5,400
X.	<u>L.D.C. - 2</u>			
	1. Chairs	2	400	800
	2. Tables	2	1,500	3,000
				Total :- 3,800
XI.	<u>NAIB QASIDS - 15</u>			
	1. Chairs	15	300	4,500
				Total : 4,500
XII.	<u>CONFERENCE ROOM</u>			
	1. Conference Table	1	12,000	12,000
	2. Chairs	20	500	10,000
				Total : 22,000
XIII.	<u>STUDY STAFF</u>			
	A. <u>INVESTIGATORS - 10</u>			
	1. Chairs	10	500	5,000
	2. Tables	10	1,500	15,000
	3. Steel Almirahs	10	1,700	17,000
	4. File Racks	10	1,000	10,000
				Total : 47,000
	B. <u>ENUMERATORS - 15</u>			
	1. Chairs	15	400	6,000
	2. Tables	15	1,500	22,500
	3. File Racks	15	1,000	15,000
				Total : 43,500
	C. VISITOR CHAIRS	15	400	6,000
				50,000
	OTHER OFFICE FURNISHING LUMP SUM			50,000
				GRAND TOTAL :- 453,900

URBAN TRANSPORT WING IN N.T.R.C.
TOTAL ESTIMATED EXPENDITURE (1989-93)

Annex-'G'

S. No.	Description	1989-90	1990-91	1991-92	1992-93	Total	Remarks
1.	2.	3.	4.	5.	6.	7.	8.
1. SALARY/FIELD SURVEYS							
(A) REGULAR STAFF							
	BPS No						
1.	Chief	20 1	138,805	141,625	144,445	147,265	572,140
2.	Deputy Chief	19 5	556,175	568,475	580,775	593,075	2,298,500
3.	Assistant Chief	18 5	388,965	400,665	412,365	424,065	1,626,060
4.	Research Officer	17 10	597,290	615,890	634,490	653,090	2,500,760
5.	Superintendent	16 1	28,383	29,643	30,903	32,163	121,092
6.	Stenographer	15 6	150,438	155,550	160,662	165,774	632,424
7.	Stenotypist	12 10	210,880	217,120	223,360	229,600	880,960
8.	Assistant	11 1	19,858	20,410	20,962	21,514	82,744
9.	Draughtsman	11 1	19,858	20,410	20,962	21,514	82,744
10.	Lower Division Clerk	5 2	31,094	31,694	32,294	32,894	127,976
11.	Naib Qasid	1 15	214,665	217,005	219,345	221,685	872,700
Total (A) :-		57	2,356,411	2,418,487	2,480,563	2,542,639	9,798,100
(B) SURVEY STAFF/FIELD SURVEY							
1.	Investigators	16 10	283,830	296,430	309,030	321,630	1,210,920
2.	Enumerators	11 15	297,870	306,150	314,430	322,710	1,241,160
3.	Field Surveys		1,000,000	1,500,000	1,500,000	1,500,000	5,500,000
Total (B) :-		25	1,581,700	2,102,580	2,123,460	2,144,340	7,952,080
Total (A+B) :-			3,938,111	4,521,067	4,604,023	4,686,979	17,750,180
2. OTHER EXPENDITURE							
1.	Transport (POL)		100,000	100,000	100,000	100,000	400,000
2.	Communication		100,000	100,000	100,000	100,000	400,000
3.	Utilities		60,000	60,000	60,000	60,000	240,000
4.	Stationery		50,000	50,000	50,000	50,000	200,000
5.	Printing		50,000	50,000	50,000	50,000	200,000
6.	Books Journals and Newspapers, etc.		25,000	25,000	25,000	25,000	100,000
7.	Contingent Staff		25,000	25,000	25,000	25,000	100,000
8.	Uniform and Liveries		10,000	10,000	10,000	10,000	40,000
9.	Office Rent*		588,000	588,000	-	-	1,176,000
10.	Building Maintenance		-	-	66,000	66,000	132,000
11.	Other Exp./Maintenance of Equipment		75,000	75,000	75,000	75,000	300,000
Total (2) :-			1,083,000	1,083,000	561,000	561,000	3,288,000
3. DURABLE GOODS							
1.	Transport		500,000	-	-	-	500,000
2.	Machinery and Equipment		200,000	-	-	-	200,000
3.	Typewriters (16 No.s)		160,000	-	-	-	160,000
4.	Photocopying Machine		100,000	-	-	-	100,000
5.	Other Office Machine		100,000	-	-	-	100,000
6.	Micro Computer and Software		200,000	-	-	-	200,000
7.	Furniture and Fixture		453,900	-	-	-	453,900
Total (3)			1,713,900	-	-	-	1,713,900
4.	OFFICE BUILDING		2,100,000	2,100,000	-	-	4,200,000
Total (1+2+3+4) :-			8,835,011	7,704,067	5,165,023	5,247,979	26,952,080
5.	CONTINGENCIES 5%		441,751	385,203	258,251	262,399	1,347,604
TOTAL (1 - 5) :-			9,276,762	8,089,270	5,423,274	5,510,378	28,299,684
6.	TECHNICAL ASSISTANCE (FEC) :-		1,000,000	1,000,000	1,500,000	1,500,000	5,000,000
GRAND TOTAL :-			10,276,762	9,089,270	6,923,274	7,010,378	33,299,684

* Starting Office Rent

Further break-down may be seen in Annex-B.1 and B.2

Further break-down may be seen in Annex-B.3 and B.4

Further Breakdown may be seen in Annex-B.5 & B.6

* Office Estimated area is 14,000 sq.ft. and at the rate of Rs. 3.50 per sq.ft. the monthly rent is Rs.49,000/-.

Ford Wagon + Suzuki Car

Details at Annex-'F'

DETAILS OF SALARY EXPENDITURE
OF RESEARCH STAFF

(Rupees)

S.No.	Description	BPS	No.	Per Annum Requirement	Remarks
1.	2.	3.	4.	5.	6.
1.	Chief	20	1	147,265	
2.	Deputy Chief	19	5	593,075	:: 64 ::
3.	Assistant Chief	18	5	424,065	
4.	Research Officer	17	10	653,090	

Total :- 1,817,495

URBAN TRANSPORT WING IN N.T.R.C.

Annex- 'I'

DETAILS OF SALARY EXPENDITURE OF
ANCILLARY STAFF

S.No.	Description	BPS	No.	(Rs.)		Remarks
				Per Annum Requirement	6.	
1.	Superintendent	16	1	32,163		
2.	Stenographer	15	6	165,774		
3.	Stenotypist	12	10	229,600		
4.	Assistant	11	1	21,514		65
5.	Draughtsman	11	1	21,514		
6.	Lower Div. Clerk	5	2	32,894		
7.	Naib Qasid	1	15	221,685		
Total :-				725,144		

URBAN TRANSPORT WING IN N.T.R.C.

Annex-'J'

DETAILS OF SALARY EXPENDITURE OF
SURVEY STAFF AND FIELD SURVEYS

S.No.	Description	BPS	No.	(Rs.)		Remarks
				Per Annum Requirement		
1.	2.	3.	4.	5.	6.	6.
1.	Investigator	16	10	321,630		
2.	Enumerator	11	15	322,710		
	Total :-		25	644,340		
3.	Field Surveys			1,500,000		Lumpsum
	Grand Total :-			2,144,340		

URBAN TRANSPORT PLAN - RAWALPINDI/ISLAMABAD

URBAN TRANSPORT PLAN - RAWALPINDI/ISLAMABAD
(TENTATIVE WORK PLAN)

Sl. No.	Description	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1	RAWALPINDI - ISLAMABAD (1990-91)												

(A) SHORT TERM:

1. Accident Black Spot Improvement
2. Intersection Improvements
 - (a) Geometric Improvement
 - (b) Signal Synchronization
3. Link Improvement
 - (a) Geometric Improvements
 - (b) Road Sign & Marking
4. Public Service Facilities
 - (a) Demand/Supply Assessment
 - Bus
 - Mini Bus
 - Taxi
 - Rickshaw
 - Others
 - (b) Storage Facilities
 - Bus Stops
 - Bus Bays
 - Taxi Stands
 - Rickshaw Stands
 - Others
5. Parking Facilities
 - (a) Demand/Supply Assessment
 - (b) Location of Parking
 - (c) Parking Controls
6. Pedestrian Facilities
 - (a) Footpath Improvements
 - (b) Guardrails
 - (c) Pedestrian Bridges
 - (d) Others
7. Other Low Cost Measures

(B) LONG-TERM:

1. Land Use
2. O-D Survey
3. Trip Generation
4. Travel Characteristics
5. System Inventories
6. Data Bank
7. Design Standards
8. Others

URBAN TRANSPORT PLAN - PESHAWAR

(TENTATIVE WORK PLAN)

S.I. No.		Description		PESHAWAR (1992 - 93)																	
				M O N T H S																	
				Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.		
				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

(A) SHORT TERM:

1. Accident Black Spot Improvement _____
2. Intersection Improvements _____
 - (a) Geometric Improvement _____
 - (b) Signal Synchronization _____
3. Link Improvement _____
 - (a) Geometric Improvements _____
 - (b) Road Sign & Marking _____
4. Public Service Facilities _____
 - (a) Demand/Supply Assessment _____
 - Bus _____
 - Mini Bus _____
 - Taxi _____
 - Rickshaw _____
 - Others _____
 - (b) Storage Facilities _____
 - Bus Stops _____
 - Bus Bays _____
 - Taxi Stands _____
 - Rickshaw Stands _____
 - Others _____

5. Parking Facilities _____
 - (a) Demand/Supply Assessment _____
 - (b) Location of Parking _____
 - (c) Parking Controls _____
6. Pedestrian Facilities _____
 - (a) Footpath Improvements _____
 - (b) Guardrails _____
 - (c) Pedestrian Bridges _____
 - (d) Others _____

7. Other Low Cost Measures _____

(B) LONG-TERM:

1. Land Use _____
2. C-D Survey _____
3. Trip Generation _____
4. Travel Characteristics _____
5. System Inventories _____
6. Data Bank _____
7. Design Standards _____
8. Others _____