

NATIONAL TRANSPORT RESEARCH CENTRE

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ROAD FREIGHT TRANSPORT
SURVEY PROCEDURE

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INTRODUCTION:

A series of surveys were undertaken in 1985-86 relating to the private road freight transport industry of Pakistan. The surveys formed part of joint research programme carried out between the National Transport Research Centre and the Transport and Road Research Laboratory (UK).

The purpose of this work was to collect information on a wide range of aspects of the industry including the finance, management, revenues, costs and utilization of freight vehicles, the requirements of freight consignors and the role of freight agents.

Data was collected in six different survey exercises, these were:-

- i) An In Depth Road Side Interview Survey
- ii) A Travelling Interviewer Survey
- iii) A Survey of Freight Cosignors and Freight Agents
- iv) The Collection of Truck Drivers Personal Diaries Containing Records of Revenues and Costs
- v) A Survey of Past Trends in Freight Rates
- vi) A Survey of Road Roughness

This report describes what data was collected and how the information was coded and entered into the computer. A description of computer files and programmes is included.

THE IN DEPTH ROADSIDE INTERVIEW SURVEY:

This survey formed the main part of the total data collection undertaken for the study. Data was collected on the following:-

- i) Ownership
- ii) Management
- iii) Finance
- iv) Insurance
- v) Journey Origins-Destinations, Distance, Travel Times
- vi) Loads
- vii) Revenues and Costs
- viii) Vehicle Kilometerag
- ix) Accidents
- x) Vehicle Type and Modifications

In total 3,500 interviews were carried out at 39 survey stations situated throughout Pakistan during the period from 10th January to 28th April, 1986. Data was collected for 24 hours at each site. The survey sites are listed in Appendix-1 and shown on the map in Appendix-2.

The survey stations were located almost entirely at district boundries and so data from this survey is only representative of inter-district traffic.

All of the data was collected by a mobile survey team consisting of 2 Economic Investigators, 6 Enumerators, 2 Cook/helpers and one driver. The team travelled in a Ford Transit Van with tents, beds and cooking equipment, on arrival at a survey site the team would pitch their tents and contact the local police to provide assistance with stopping the trucks. (The Regional Police Headquarters were notified 3 to 4 weeks in advance of the programme).

The surveys took place from 10 am. for 24 hours; at the end of this period the survey team would usually spend another 24 hours to move survey sites before the next survey period started.

In order to encourage the maximum cooperation of drivers tea was provided at each survey site. The police who assisted with the survey were also provided with occasional meals.

The questionnaire was prepared first in English and then translated into Urdu before printing. The survey team conducted their interviews in Urdu, Punjabi and Pushto.

Trucks were stopped on the road and asked to pull over by the policemen on duty. The driver was then asked to come down from his cab and invited to take tea and to be interviewed. The survey took on average 22 minutes to complete; there were virtually no refusals. Drivers were

given a form to show they had attended the interview which they could show when stopped at this or other survey stations later so as to avoid being interviewed twice. Once the truck had left after the interview the next truck passing was stopped by the police and asked to pull over, where necessary different sides of the road were taken in rotation.

The completed questionnaires were briefly checked in the field and then sent back to Islamabad for entry into the Apricot Micro Computer. Data entry was carried out straight from the questionnaire into the computer without prior data coding.

A Copy of the English version of the questionnaire is in Appendix-3. In each question space a computer field code number has been written between two asterixes. This is to provide an exact tie-up between computer field and the questionnaire.

a) QUESTIONNAIRE DATA ENTRY AND USE OF THE DATAMASTER SYSTEM:

All of the data collected in the In Depth interview together with data collected from the freight Agents and Consignors surveys and from the Truck Drivers Diaries was entered into the computer using the Datamaster suit of computer programmes.

X X
Datamaster is a database system which is designed to enable the user to enter a series of interrelated set of data files. The data can then be totalled, cross tabulated, summerised or selected in a relatively easy manner without recourse to standared computer programming. Data files can also be transferred to other statistical packages or to trailer made programmes as desired.

A full description of Datamaster is contained in the two handbooks, Datamaster Tutotial, Reference and Guide and Datamaster Data Query Language Guide.

Briefly the key components of the Datamaster system are as follows:-

1. The Datamaster Form: To enter data into the system it is first necessary to prepare a blank Datamaster form. In the Freight Transport Survey a different form was prepared for each different questionnaire. For the In Depth Interview the screen image of the Datamaster form: Indepth 4 follows closely the layout of the original questionnaire so that data can be entered relatively easily from the questionnaire to the computer.

The total form of Indepth 4 covered the equivalent of 6 full screen pages. Each screen page is automatically connected to the next. The Indepth 4 form contains a total of 190 fields.

Each question on the questionnaire has its corresponding field.

Additional fields were specified so that desired information from other fields and forms can be automatically stored with information input from the main questionnaire.

2. The Datamaster Field: In the Datamaster system 8 different types of field are allowed enabling a variety of numerical and text data to be stored including direct multiple choice questions. Fields can be specified to use data derived from other datamaster forms. So that for example in Indepth4 origins, destinations and commodity classifications were derived from simple number codes which were automatically matched with listed data already input in other Datamaster forms. Fields using derived data were also to provide easy conversions of miles to kilometers and different weights (e.g. lb, manuds, kg. etc.) to tons 3.

To enable instant access to every questionnaire record two fields were indexed. These were the questionnaire Number and the Truck Registration Number.

3. The Datamaster Relationship: In order to lookup derived data from other Datamaster forms at the time of data entry it is necessary to specify a relationship between the two forms. This is done via the specially prepared Relationship Form an equality between a field in each of the two interrelated forms needs to be specified. In this was the commodity code Number was specified to be the same on the form 'Commodity' as on the form 'Indepth4' in a Relationship Form in order that the ^W name of the commodity could be looked up and accessed to Indepth4.

4. The Datamaster Record: Once the form has been fully prepared data can be input into the form via a Datamaster Record. The record has the same name and layout as the form. Each questionnaire has a corresponding record. Starting from the first field in the record the user is automatically taken to the next field as each entry is made. When the record is fully complete the user can "Enter" the record and after which the whole record can be printed out, viewed, modified or deleted as required.

5. The Datamaster Report: The Datamaster Report is a powerful facility which will enable the user to:-

- i) Select records according to a variety of criteria
- ii) List data from the selected records
- iii) Calculate totals, means, standard deviations etc.
- iv) Make a count of the number of times a given criterion are met eg for a given answer on a multiple choice question
- v) Group data together and giving counts, means, total etc. for each sub group
- vi) Produce a printed report; the user is given the facility to arrange the layout as required and to write in the titles, descriptions and footnotes as required
- vii) To store selected data in a disk file for use with other programmes

To make use of the report facility it is first necessary to prepare the report before it is "run". Report preparation consists of the following 4 steps:-

- i) Identification of data listing and analysis required
- ii) Selection of the output format type (e.g in columns, field per line or export)
- iii) Modification of format layout
- iv) The set up and modification of final print instructions

The preparation of the data listing and analysis to be undertaken can be carried out by following the input prompts; it is also possible to write in the instructions in "edit" mode. To make counts and to produce statistics of grouped data it is necessary to enter instructions using the "High level" input mode.

To produce a data file which can be analysed by Microstat or a programme written in basic it is necessary to specify the "export" format. A variety of export formats are offered but the easiest to use is the "variable field length" type where a comma "," is used to separate the fields. This will produce a sequential data file which can be easily analysed by basic programmes. The same format is easily accepted by Microstat. To run an analysis using Microstat (e.g. to carry out regression analysis) the data must be converted to Microstat format, this is done using the Microstat instructions.

A format layout is automatically generated by Data-master. Titles and column headings are easily written into the layout as required. Field locations and field lengths may be easily changed if required.

To print the analysis of grouped data it is necessary to write in the instructions "group header" and ".group trailer" on the format layout before and after the ".items" instruction. These instructions are not printed but they help identify exactly how the listing, group and sub-group totals should be carried out. For grouped data it is also essential to place the field locations into the format layout because for grouped data this is not done automatically by Datamaster.

6. Backing up and restoring the data base: The set of Datamaster files used to store the Freight Survey data was developed on the XI Apricot Computer which has a 10 megabyte hard disk together with 560 K of RAM. Backup copies of the whole of Datamaster files were obtained from the Database maintenance programme of Datamaster. The whole database is stored on 4 of double density double sided 3.5 micro diskettes. The database can only be down loaded into an Apricot Micro Computer which also has a hard disk of at least 5 megabytes.

To down load the database it is first necessary to load the Datamaster system files on to the computer and with the help of the System Administration Menu and to assign the default system data drive (together with the default programme) to disk drive "A". The capacity of the hard disk should also be entered.

The freight Survey Database can then be down loaded by following the restore procedures shown in the Database

Maintenance Menu.

The Database can only be restored to a computer with a hard disk because the data files are so large. The data file for the In Depth Interview Survey alone contains over 1.5 megabytes.

b) Datamaster files used for the In Depth Interview Survey:

Associated with each different Datamaster form there are three different types of disk file. These are the form definition file, the record file (on which the data for each records is kept) and index files. There are also system defined forms which store information on the printers, the configuration as well as information specified relationships between forms. By running the Database "Status" option within the "Utilities" facility a current print out of Datamaster files with the disk file names can be obtained. A current print out is listed in Appendix-4.

The main Datamaster form on which data from the In Depth4 Interview is stored is: In Depth4. A printout of this form with detailed file descriptions is included in Appendix-5.

Indepth4 also drew on data stored on 14 other forms. Weight conversion factors were stored in forms: AA, AG, AH.

Litres/Gallons conversions were stored in form: AI.

Miles/Kms conversions were provided in forms: AB, AC,

AD, AE, AF.

Commodity Descriptions were stored in form: Commodity.
Origin and Destination District locations were stored
in forms: District, District2 District3 District4.

Travelling Interviewer Survey:

In this survey of freight vehicles data was collected on the exact time utilisation and the revenues and costs incurred over a period lasting from one to three weeks. In total 47 different survey periods were obtained:

Most of the data was collected by interviewers who travelled with each truck for the whole period recording their information on 24 hours basis. Some data was also provided by truck drivers who kept their own records. To provide a check on the utilisation data a weekly activity chart recorder was fitted to the truck which recorded when the truck was in motion.

The cost and revenue information and the records kept of kilometres travelled provided a way of obtaining accurate fuel consumption information; the data also provided an independent check on revenue and cost information collected from the other surveys.

English translations of the forms used to record the data are shown in Appendix-6 and 7. Data from this survey are stored in computer files in two separate ways. The time utilisation data was stored in a random access file generated from data entry and correction programmes written in G.W. basic.

The trip revenue and cost information are stored in Data-master programmes.

a) Time utilisation data files and programmes:

The time utilisation data is stored in the random access file: Travel. dat. This is stored in 11 fields in addition to the record number. The fields are as follows:-

- i) Group code number: This number is common for each block of data relating to each survey period
- ii) Empty/loaded code: 1. empty 2. loaded

Activity start date and time:-

- iii) Start day (of month)
- iv) Start month
- v) Start year
- vi) Start hour
- vii) Start minute
- viii) Activity Code: 1. Vehicle moving 2. Vehicle waiting to load/unload 3. Vehicle loading 4. Vehicle unloading 5. Rest period 6. Emergency or unscheduled interruption 7. Vehicle under repair

Activity Duration:

- ix) Time duration of activity (hours)
- x) Time duration of activity (minutes)
- xi) Distance travelled in kilometers

Data is record into Travel. dat by the programme Intime2. bas. This programme is written in G.W basic in common with other programmes associated with this data.

A printout of the data in Travel. dat is obtained from Timebak3. bas. It is shown on screen by Timeback. bas. One line corrections are made by Onetime.bas. corrections relating to large blocks of data are made by Timeseq1. bas. Logic checks are made by Chektime. bas and by Chektime2. bas. The later programme also identifies extreme values.

Sub totals of data given on a trip basis are made by running Timetotal.bas and the easy identification of loading and unloading and unloading times by Chektime3. bas.

When the original data was inconsistant and alterations had to be made then the changes were recorded in the random access file Travcha.dat. Data to this file is input and displayed by Changtra.bas. Travcha.dat contains 12 fields in addition to the record number. Thefields contains all of the data that is contained in Travel.dat. (i.e. record number and 11 fields).

b) Vehicle and cost and revenue data relating to travelling interviewer survey: Datamaster files:

General information relating each vehicle, the time period of the survey, the kilometers travelled, fuel used and the number of trips made are stored in the Datamaster form;

Survey Trucks. With this data is also included the start and finish record numbers of the associated time utilization data stored in Travel.dat. A printout of the "Survey Trucks" Datamaster form is included in Appendix-8. Key data from this form is printed in Appendix-9.

Cost and revenue data is stored in Datamaster form: Cost and Revenue Log. This data is stored on a trip by trip basis and trip origins, destinations, trip distance and load carried are also included. Data automatically accessed from the form Survey Trucks is included in this form. To cross reference this data with the Datamaster form Survey Trucks and also with the time utilization data stored in Travel.dat, the Group Code No shown in the "Cost and Revenue Log" and the "Survey Trucks" forms and the Code No. in "Travel.dat" are common. To tie up information on loaded trips in "Travel.dat" with the "Cost and Revenue Log" the latter includes the record number of the first loading and last unloading of the data stored in Travel. dat. for each loaded trip.

A printout of the Cost and Revenue Log form with detailed file descriptions is shown in Appendix-10.

Cost and Revenue Log draws on data from four other Datamaster forms. These are:-

- i) "Survey Trucks" for general information about each truck
- ii) "Commodity" to identify commodity type from the commodity code and
- iii) "District" and
- iv) "Distric2" for trip origin and destinations

Freight Agents and Consignors Survey:

In the period from February to May, 1986 two Economic Investigators visited a number of towns throughout Pakistan where they interviewed freight agents and major industrial consignors in each area.

The main towns in which interviews were held together with the number of interviews found useable which have been entered into the computer are as follows:-

	<u>Freight Agent</u>	<u>Consignors</u>
Abbottabad	9	11
Attock	9	10
Faisalabad	29	1
Gujranwala	28	18
Karachi	49	56
Lahore	37	36
Rawalpindi	29	23
Sargodha	24	14
Sheikhupura	-	4
Sukkur	19	13
Others	4	2
Total:-	<u>237</u>	<u>188</u>

a) Freight Agents Survey:

The questionnaire used for the Freight Agents Survey is given in Appendix-11. The questionnaire asks questions on the ownership of the business, the type of consigning undertaken, ancilliary services (e.g warehouses) provided, the proportion of business coming by telephone or personal callers, typical routes and goods moved, the time taken to find transport, the use of long term contracts and opinions on containerisation and the use of computers to help match drivers with loads.

Data from the questionnaire was entered straight from the questionnaire into a Datamaster data entry form 'Freight Agents'. This form is shown in Appendix-12. Commodity types and District information data for the Freight Agents form are drawn from the Datamaster forms "Commodity" and "District".

b) Freight Consignors Survey:

Only major industrial firms were approached to supply information for this survey. In general the transport of marketing manager was approached for an interview. The questionnaire used for the survey is given in Appendix-13. The questionnaire was only used as a general guide; the interviewers were free to follow different lines of questioning as they developed.

Information was collected on the type of businesses undertake, the preferences consignors have for transporting freight, the use of transport owned by the company, long term

agreements with transporting and freight agents, the development of containersation and the detail of common consignments.

Once all of the interviews had been completed the key elements of the information gathered in the survey were identified and a Datamaster form proposed for data entry. The form: Consignors is shown in Appendix-14. This form draws data from the form "District".

Truck Drivers Cost and Revenue Diaries:

In the course of the study it was found that many drivers kept detailed diaries of their costs and revenues. In total diaries from over 50 different trucks were collected covering about 600 vehicle months of data. Although most of the diaries related to standard two axle Bedford trucks 7 diaries were collected for other trucks. Key data relating to the diaries are shown in Appendix-15.

Data from each diary was transferred to a coding sheet and then data relating to each month was totalled. The totalled monthly data was entered into the Datamaster form: Monthly. This form is show in Appendix-16.

Basic information on the make, Registration number, and model year is stored in the form: Diary Trucks. This information is automatically transferred to the form: Monthly using a common code number: "Diary No.".

In order to help with the analysis of this data on a constant price basis a separate Datamaster form: price Index was prepared in which the consumers price index, fuel, tyre and the basic Bedford chassis price was stored. This data is also accessed automatically by the form Monthly.

Past Tariff Data:

In order to identify past trends and seasonality in tariffs past tariff data was collected from records of freight agents relating to particular journies with standard loads. Data going back over 4 years was collected on a twice monthly basis. This data was principally collected from freight agents located in the Havalian/Taxila/Rawalpindi area and from Karachi, Quetta and Lahore. The loads from these areas travelled to many different parts of the country over 120 different sets of data were collected.

Details of the particular trips, origins, destinations loads and types of vehicle was stored in the Datamaster form: Tariff Data. A listing of the data collected is shown in Appendix-17. Through running a report on this data with a disk file output (making use of the "Variable field length" format with a comma as a field separator) this data was transferred to a sequential file format and stored as Htar1.dat. The G.W. basic programme Htar3.bas is able to access Htar.dat. data to help with the entry of the tariff data.

Tarif data is stored in the random access file: Htar2. dat. The programme Htar3.bas enable the user to input, access, view, correct and print the tariff data.

The Htar2. dat data file has 4 fields in addition to the record number. These are:-

- i) The tariff code number
- ii) The period number (1-24) of the year
- iii) The year
- iv) The tariff

To help identify the start and end of each set of tariffs the start and end record numbers are stored in a random access file Htar4.dat. This data is also accessed printed and corrected via the programme Htar3.bas.

A Survey of Road Roughness:

In order to assist with the analysis of vehicle operating cost data and tariff data collected in the other surveys data was also collected on road roughness. During early 1980 the consulting firm KAMSAX collected road roughness data for the major highways in Pakistan for the National Highway Board. It was therefore, unnecessary to mount a complete survey of roughness of the whole network. However there were important gaps in the KAMSAX survey which required that an additional survey be carried out. In particular data needed to be collected from the unsurfaced roads in the Mekran, from the interior Punjab and from roads lying to the west of Indus. In addition supplementary data was required on the Karakoram Highway and the roads to Skardu, Swat and between Quetta and D.G Khan via Loralai.

The Freight Survey roughness data was collected on a sample basis (typically 1 km every 10 miles at 20 mph) using a vehicle mounted bump integrator unit on the project's Range Rover. The Range Rover was calibrated by using the low cost calibration device "Merlin" devised by the Transport and Road Research Laboratory.

KAMSAX collected their data on a continuous basis during at a faster speed, and their data was calibrated differently using a wedge and level.

Data for both surveys was entered into the Datamaster form: Links. Each Datamaster record in links contains data on a link in the road network. It lists the names of each node at either end of the link, the link distance and where available the average roughness level from the different surveys. The Datamaster form links draws on data from the two Datamaster forms, Nodes and Nodes2 which list the node names.

A diagrammatic Node Link network of Pakistan is shown in Appendix-18 and the full data set of roughness measurements contained in the form link is listed in Appendix-19.

Roadside Truck Interview Survey

Place Code	Road Section	Province	Start Date	To Karachi		From Karachi		Total Interviews
				loaded	empty	loaded	empty	
1.	Rawalpindi - Murree	Punjab	10.01.86	12	25	26	6	69
2.	Taxila - Hasan Abdal	Punjab	12.01.86	30	16	34	23	103
3.	Abbottabad - Mansehra	N.W.F.P	14.01.86	21	37	30	10	98
4.	Batgram - Besham	N.W.F.P	16.01.86	15	11	37	5	68
5.	Attock Bridge	Punjab	18.01.86	44	48	44	3	139
6.	Mardan - Malakand	N.W.F.P	20.01.86	15	16	68	10	109
7.	Peshawar - Nowshera	N.W.F.P	22.01.86	21	32	31	12	96
8.	Peshawar - Kohat	N.W.F.P	24.01.86	14	27	40	17	98
9.	Bannu - D.I Khan	N.W.F.P	26.01.86	15	41	41	1	98
10.	D.I Khan - D.G Khan	N.W.F.P	28.01.86	9	18	27	1	55
11.	Rawalpindi - Mandra	Punjab	10.02.86	21	6	15	1	43
12.	Jhelum Bridge	Punjab	12.02.86	14	12	60	9	95
13.	Gujranwala - Lahore	Punjab	14.02.86	46	8	34	6	94
14.	Faisalabad - Sheikhpura	Punjab	16.02.86	51	23	54	6	134
15.	Sargodha - Faisalabad	Punjab	18.02.86	55	4	19	25	103
16.	Okara - Sahiwal	Punjab	20.02.86	23	22	55	0	100
17.	Multan - Bahawalpur	Punjab	22.02.86	53	10	42	4	109
18.	Muzaffargarh - Fatehpur	Punjab	24.02.86	54	11	42	3	110
19.	D.G Khan - Rakhi	Punjab	26.02.86	44	1	20	40	105
20.	D.I Khan - Darya Khan	Punjab	28.02.86	18	25	52	4	99
21.	Pano Aqil - Mirpur Mathelo	Sind	18.03.86	31	16	32	0	79
22.	Jacobabad - Dera Murad Jamali	Sind	20.03.86	23	15	60	4	102
23.	Larkana - Ghari Yasin	Sind	22.03.86	18	15	8	9	50
24.	Hyderabad - Sakrand	Sind	24.03.86	51	11	58	12	132
25.	Hyderabad - Mirpur Khas	Sind	26.03.86	38	10	41	19	108
26.	Kotri - Dadu	Sind	28.03.86	61	8	17	34	120
27.	Hyderabad - Karachi	Sind	30.03.86	43	23	60	7	133
28.	Karachi - Thatta	Sind	01.04.86	46	4	11	60	121
29.	Karachi - Uthal	Baluchistan	03.04.86	52	13	15	19	99
30.	Sibi - Dadhar	Baluchistan	10.04.86	48	12	47	5	112
31.	Nushki - Quetta	Baluchistan	12.04.86	4	9	19	10	42
32.	Quetta - Bostan	Baluchistan	14.04.86	19	19	42	19	99
33.	Muslimbagh to Zhob & Loralai	Baluchistan	16.04.86	21	12	36	3	81
34.	Khuzdar - Kalat	Baluchistan	19.04.86	21	54	33	7	115
35.	Besima - Surab	Baluchistan	21.04.86	0	7	6	0	13
36.	Besima - Panjgur	Baluchistan	23.04.86	0	11	7	0	18
37.	Panjgur - Turbat	Baluchistan	25.04.86	1	3	6	0	10
38.	Turbat - Gawadar	Baluchistan	27.04.86	5	6	5	13	29
39.	Turbat - Awaran	Baluchistan	29.04.86	6	16	42	1	65
Total :				1,063	666	1,316	408	3,453

(revised) QEST2

REF No (_*1*_)

NATIONAL TRANSPORT RESEARCH CENTRE
TRANSPORT AND ROAD RESEARCH LABORATORY

IN DEPTH SURVEY OF TRUCK DRIVERS

(Note No. between * * refers to field No. of Datamaster programme Indepth2)

PART I INTERVIEW DETAILS

- 1. Interviewer Code (*4*) Place Code (*5*) Date */6/*
- 2. Direction.Truck travelling: *7*
 - Towards Karachi (1) Away from Karachi (2)

PART II DRIVER DETAILS

- 3. Respondent is: *8* Principal Driver (1) OR Driver's Mate (2)
- 4. Which Province/Country does Driver belong to ? *9*
 - NWFP (1) Punjab (2) Baluchistan (3) Sind (4) Northern Areas (5)
 - Azad Kashmir (6) Afghanistan (7) Elsewhere (_____) (8) DK()
- 5. When did driver first start driving ?
 - Driving licence obtained 19 *10*) Don't Know ()
- 6. How long has driver been with this vehicle ? *11*
 - Under 1 year (0) 1 year (1) 2 years (2) 3 years (3) 4 years (4)
 - More than 4 years give ___years Don't Know ()
- 7. How many drivers are usually carried ? *12*
 - One(1) Two(2) More than 2 give no. ____ Don't Know ()
- 8. How many assistants/conductors ? *13*
 - None (0) One(1) Two(2) More than 2 give no. ____ Don't Know ()

PART III VEHICLE LOAD

9. Is truck loaded or empty ? *14*

Truck is loaded (1) Go to 10.

Truck is empty (2) Go to 20.

If vehicle is LOADED please answer questions 10 to 19.

10. Principal cargo (Code *15*, Cargo *16*) Don't Know ()

11. Total cargo weight or quantity: (Amount *17*, Units *18*)

() (1) tons () (2) maunds () (3) Kg () (4) lbs () (5) cu f

() (6) cu metre () (7) ltrs () (8) gals () (9) numbers DK()

12. How full is vehicle ? *20*

Full load (1) Part load (2) Don't Know ()

13. Multiple Loads: Are there more than one town where cargo will be
picked up or delivered on this journey? *21* NO (1) YES(2) DK()

14. Cargo origin and destination.

i) Load origin: town () district () DK() (Code *22*)
(For multiple loadings given first town)

ii) Load destination: town () district () DK() (Code *24*)
(For multiple unloadings give last town)

15. Give approximate distance: (Amount *26*, Units *27*)

(_____) (1)miles OR (_____) (2)Kms. DK()

i) Give approximate journey time: *29* hrs -*30* days DK()

16. Was an Agent used to find the load ? *32* NO (1) YES (2) DK ()

If YES i) What was the Agent's charge? Rs__*33*__ Don't Know()

17. Please give total revenue for the trip.

Total Revenue is Rs__*34*__ Don't Know()

i) Please give total revenue for last month.

Last month's Revenue was Rs__*35*__ Don't Know()

18. Before picking up this load how far did truck have to travel empty?

(Amount *36*, Units *37*)

No distance (0) OR (_____) (1)miles OR (_____) (2) kms DK()

19. Including running time how long was truck empty between putting down previous load and picking up this load?

i) If less than one day give hours (___*39*_) (1) Hrs

ii) If more than one full day (24Hrs) give days (___*40*_) (2) Days

Don't Know ()

Go to question 24.

If the vehicle is EMPTY answer questions 20-23.

20. What is your journey origin ?

town_____) district_____) DK() (Code *43*)

21. What is your journey destination ?

town_____) district_____) DK() (Code *44*)

22. Give approximate distance: (Amount *47*, Units *48*)

(_____) (1)miles Or (_____) (2)Km DK ()

23. What is current journey purpose ? *51*

- Driver looking for a load to transport (1)
- to return to main depot or base (2)
- to settle accounts (3)
- to visit driver's home (4)
- to collect money from customer (5)
- to go for repairs (6)
- to make a recreational visit (7)
- to pick up or drop passengers (8)
- to purchase goods for oneself (9)
- other reason (state)_____ (10)
- Don't Know ()

PART IV OWNERSHIP & MANAGEMENT OF VEHICLE

24. Is principal driver the REGISTERED OWNER ? *52* NO(1) YES(2) DEK()

i) If NOT what relationship does the REGISTERED OWNER have with the truck? *53

He is the sole owner who takes full profits and losses of the truck (1)

He is a joint owner who takes part share of profits and losses (2)

He is someone who provides hire purchase or other finance for sale of truck but is not involved in operating the truck (3)

He is a previous operator who is selling the truck (4)

He is an owner who hires out the truck on a regular basis (5)

Government body, public corporation (6)

Commercial company (7)

Other (8)

Don't Know ()

25. What is relationship between DRIVER and truck ? *54*

i) Truck is on hire-purchase to driver alone (1) Go to 29.

ii) Truck is on hire-purchase to driver and others (2) Go to 28.

iii) If neither of these then is:
Principal driver is exclusive sole owner of truck? (3) Go to 29.

Principal driver owns a part share of truck ? (4) Go to 28.

Principal driver is an employee with regular salary? (5) Go to 26.

Vehicle is rented by driver ? (6) Go to 26.

Vehicle is borrowed or other arrangement ? (7) Go to 26.

Don't Know () Go to 26.

iv) Principal driver's wages Rs_*55*_per month v) Daily expenses Rs_*56*

vi) Driver's mate wage Rs_*57*_per month vii) Daily expenses Rs_*58*

viii) Conductor wages Rs_*59*_per month ix) Daily expenses Rs_*60*

26. If vehicle is NOT owned by principal driver at all who owns it? *63*

- Federal Government (1) Provincial Government body (2)
- Public Sector Corporation (3) Commercial company (4)
- Private individual (5) A family partnership (6)
- A non familypartnership (7) Other (specify) (_____) (8)
- Don't Know ()

27. If driver does not own any trucks (and is now an employee) did he ever in the past go into the freight transport business for himself? *65*

- NO (1) YES (2) Don't Know ()

(Go to Question 30.)

28. If driver has a part share in the vehicle then approximately how many people have a partnership in the truck? (*66*) DK()

29. Does the driver own other trucks? *67* NO (1) YES (2) DK()

If YES i) How many other trucks are exclusively owned by the driver? (*68*) DK()

ii) How many other trucks does driver have a part share in? (*69*) DK()

30. Where is the vehicle mainly based? (If there is no specific base give principal place where owners live.)

Town_____) District_____) Don't Know () (Code *70*)

31. Where does driver's immediate family live?

Town_____) District_____) Don't Know () (Code *71*)

32. On average how often does the driver return to base ?

Daily () Once every (*72*_days Don't Know()

33. On average how often does the driver return home to his family?

Daily () Once every (*73*_ days Don't Know ()

34. On average how often, and for how many days, is rest taken by driver every month ?

i) Rest is taken (_*74* times per month;

ii) each time for (_*75* days.

Don't Know ()

35. Is the truck owned and managed in common with other trucks? *77*

NO(1) YES (2)

Don't Know ()

If YES i) Approximately how many trucks are managed together? --*78*

Don't Know ()

PART IV VEHICLE FINANCE

For Afgan Refugee trucks, NLC trucks, Government trucks and trucks belonging to large companies go to 45 (the section on Insurance).

36. Can driver answer questions on purchase and finance of the truck ? *79*

NO (1) Go to 45. YES (2) Go to 37.

37. What is the current approximate value of the truck ?

Rs_*80*___000

Don't Know ()

38. When did current owner/first obtain this truck?

Month_*81*_) Year__*82*__) Don't Know ()

39. Was previous owner paid outright in one lump sum? *83*

No(1) YES(2) Don't Know ()

If YES i) What was total amount paid? Rs_*84*_000 DK()

ii) How was money raised for outright purchase?

The purchaser/s contributed from own resources (a) Rs_*85*_000
Loan from family (b) Rs_*87*_000
Loan from friends (c) Rs_*89*_000
Loan from bank (d) Rs_*91*_000
Gift of money (e) Rs_*93*_000
Loan from agent/money lender (f) Rs_*95*_000
Other sources (g) Rs_*97*_000
Don't Know ()

(Go to question 41)

40. Where previous owner was NOT paid outright in one lump sum.

i) What was the lump sum cash value at time of purchase? Rs_*99*_000
DK(-)

ii) What was the initial deposit? Rs_*100*_000 DK()

iii) Apart from the intial deposit what was the total amount
to be repaid? Rs_*101*_000 DK()

FOR ALL TRUCKS WHERE REPAYMENTS ARE OR HAVE BEEN ANSWER QUESTIONS 41-44.

41. What was the repayment period to pay off all commitments ?

Until *102* _month 19_*103*_year OR for *_104*_months DK(_)

42. How much were the repayments?

Each month Rs_*105*_

Don't Know(_)

43. Is the loan/hire purchase is still outstanding? *106*

NO(1) YES(2)

Don't Know(_)

If YES i) Are the repayments late? *107* NO(1) YES(2) DK(_)

ii) How easy is it to meet the loan repayments? *108*
easy (1) difficult (2) very difficult (3) impossible (4) DK(_)

44. To whom are/were the repayments to be made? *109*

Bank or financial institution (1) Relative (2) Friends(3)

Seller of vehicle (4) agent/money lender (5) Other (6) DK(_)

PART V INSURANCE

45. What type of insurance does truck have? *110*

None

(1) Franchise Certificate (2)
(Owner takes first Rs. 10,000 of risk)

Third Party (ACT) (3) Third Party (Risk) (4)

Third Party + Additions (eg fire, theft, personal accident) (5)

Comprehensive (compensation is given for loss of truck in accident) (6)

Other (state)_____ (17)

Don't Know (_)

46. Give approximate annual premium. Rs_*111*_ DK (_)

PART VI RUNNING COSTS AND REPAIRS

47. Can driver estimate how long the truck has been off the road because of repairs?

(less than 1 day = 0)

i) During the last month? give total *112*_days DK()

ii) During the last 3 months? give total *113*_days DK()

48. How often are tyres bought for the truck?

(*115*_ tyres are purchased every (*116*_month DK()

49. Excluding tyres on average how much is spent on repairs each month?

Rs_*118*_ are spent on repairs each month DK()

50. When the truck is not under repair then on average:

i) how far is the truck run per week? (Amount*119*, Units*120*)

(_____) (1)miles OR (_____) (2)kms DK()

ii) how much fuel is used per week?

(_*124*_)Rs OR (*125*_)lts DK()

PART VII ACCIDENTS

51. During 1985 how many accidents was the truck involved in?

None (0) Give number (*127*_) Don't Know ()

i) For the most serious accident did it involve the following

128 personal injuries: fatal (1)

hospitalised (2) minor (3) no injury (4) DK()

ii) For this accident what type of collision occurred to the truck: *129*

- nose to tail (1) Side (2) head on (3) hit pedestrian (4)
- hit animal (5) hit obstacle (6) roll over (7) Other (8) DK()

iii) For all the accidents the truck was involved in, can you estimate the total damage to the truck and to the loads carried?

Damage to truck Rs_ *130*_) Damage to loads Rs_ *131*_) DK()

PART VIII DRIVERS PROBLEMS

52. What are the major problems facing truck drivers today?

Please list i) _____ *132* _____ ()

ii) _____ *133* _____ ()

iii) _____ *134* _____ ()

PART IX - VEHICLE INFORMATION

53. Registration Number: (_____ *135* _____)

54. Vehicle Make: *136*

- Bedford (1) BMC/Leyland (2) Fiat (3) Ford (4) Hino (5)
- Isuzu (6) International (7) Man (8) Mazda (9) Mercedes (10)
- Mitsubishi (11) Nissan (12) Saviem (13) Toyota (14)
- Other (specify) (_____) (15)

55. i) Model Year: 19_ *137*) Don't Know ()

ii) Model Type or Number (written in log book or on side of cab/bonnet)

(_____ *138* _____) Don't Know ()

iii) Number of engine culinders

(__*139*__)

Don't Know(_)

56. Current Configuration. *140*

Rigid truck (1) Tractor unit with semi-trailer (2)

Tractor unit alone (3) Truck with trailer (4)

Other (specify) (_____)(5)

57. i) Number of axles, INCLUDING front axles:

Main vehicle (__*141*__) Trailer (__*142*__)

ii) Number of wheels, INCEUDING all front wheels:

Main vehicle (__*143*__) Trialer (__*144*__)

58. Main Body Tyep: *145*

Flat (1) High sided (2) Low sided (3) Box (4) Tanker (5)

Tipper (6) Low loader (7) Other (specify) (_____)(8)

59. Vehicle weights (lgnor if conventional Bedford)

i) Registered Unladen (Empty) weight (Amount *146*,Units *147*)

(_____) (1) tons OR (_____) (2) Kgs OR (_____) (3) maunds DK(_)

ii) Registered Laden, GCW, or total axle weight (Amount *149*,Units *150*)

(_____) (1) tons OR (_____) (2) Kgs OR (_____) (3) maunds DK(_)

60. For tanker give capacity (Amount *152*, Units *153*)

(_____) (1) gals OR (_____) (2) ltrs Don't Know(_)

61. Which Provinces does route licence of truck cover?

NWFP(*155*) Punjab(*156*) Sind(*157*)

Baluchistan(*158*) N.Areas(*159*) AK(*160*) Don't Know(_)

62. To driver's knowledge has vehicle chassis, engine or trailer been strengthened, altered or improved at all? *161*

NO (1) YES (2)

Don't Know(_)

If YES were any of the following modifications made to the truck?

- i) Was chassis strengthened? *162* NO(1) YES(2) DK(_)
- ii) Was engine compartment strengthened? *163* NO(1) YES(2) DK(_)
- iii) Were stronger springs added? *164* NO(1) YES(2) DK(_)
- iv) Was the chassis lengthened? *165* NO(1) YES(2) DK(_)
- v) Was a more powerful engine put in? *166* NO(1) YES(2) DK(_)
- vi) Was an extra axle added? *167* NO(1) YES(2) DK(_)
- vii) Was truck turned into a tractor unit? *168* NO(1) YES(2) DK(_)

If applicable were any modifications made to the trailer?

- viii) Was the trailer chassis strengthened? *169* NO(1) YES(2) DK(_)
- ix) Were stronger springs added? *170* NO(1) YES(2) DK(_)
- x) Was an extra axle added? *171* NO(1) YES(2) DK(_)

Any other modifications?

Please specify_____ *172* _____

63. Interview Quality

173

Very Good(1) Good (2) Satisfactory (3) Doubtful (4)

Number of forms: User defined: 31 System defined: 6 Total forms:37

No.	FORM NAME	NO. OF RECORDS		DISK FILE NAMES	FILE SIZE Bytes
		EXISTING	DELETED		
1.	user	1	0	A:USERAAAA.DBM	62
2.	configuration	1	0	A:CONFAAAA.DBM	90
3.	printers	1	0	A:PRINAAAA.DBM	221
4.	screen styles	3	0	A:SCREAAAA.DBM	162
5.	relationships	31	18	A:RELAaaaa.DBM	9996
6.	menus	1	0	A:MENUAAAA.DBM	672
7.	Commodity Form Definition File	92	0	A:COMMAAAA.DBM A:COMMAAAA.DBA	2852 90
8.	AA Form Definition File	5	0	A:AAAAAAAA.DBM A:AAAAAAAA.DBA	60 140
9.	AB Form Definition File	3	0	A:ABAAAAAA.DBM A:ABAAAAAA.DBA	24 108
10.	AC Form Definition File	2	0	A:ACAAAAAA.DBM A:ACAAAAAA.DBA	16 109
11.	AD Form Definition File	2	0	A:ADAAAAAA.DBM A:ADAAAAAA.DBA	16 107
12.	AE Form Definition File	2	0	A:AEAAAAAA.DBM A:AEAAAAAA.DBA	16 107
13.	AG Form Definition File	3	0	A:AGAAAAAA.DBM A:AGAAAAAA.DBA	36 121
14.	AH Form Definition File	3	0	A:AHAAAAAA.DBM A:AHAAAAAA.DBA	36 117
15.	AI Form Definition File	2	0	A:AIAAAAAA.DBM A:AIAAAAAA.DBA	24 113
16.	AF Form Definition File	3	0	A:AFAAAAAA.DBM A:AFAAAAAA.DBA	24 111
17.	District Form Definition File	84	1	A:DISTAAAA.DBM A:DISTAAAA.DBA	1700 149
18.	Indepth4 Index File Index File Form Definition File	3452	16	A:INDEAAA.B.DBM A:INDEAAA.B.101 A:INDEAAA.B.187 A:INDEAAA.B.DBA	1536324 38912 88064 15326
19.	District2 Form Definition File	77	2	A:DISTAAAB.DBM A:DISTAAAB.DBA	1580 185
20.	District3 Form Definition File	84	2	A:DISTAAAC.DBM A:DISTAAAC.DBM	1720 170

Number of forms: User defined: 31 System defined: 6 Total forms: 37

Contd..

21.	District4 Form Definition File	85	2	A:DISTAAAD.DEM A:DISTAAAD.DBA	1740 171
22.	Freight Agents Index File Form Definition File	237	4	A:FREIAAAA.DEM A:FREIAAAA.101 A:FREIAAAA.DBA	131586 4096 6827
23.	Consignors Index File Form Definition File	188	2	A:CONSAAAB.DEM A:CONSAAAB.101 A:CONSAAAB.DBA	81700 3584 11200
24.	Tariff Data Index File Form Definition File	123	1	A:TARIAAAA.DEM A:TARIAAAA.101 A:TARIAAAA.DBA	9672 2560 1297
25.	Commodity Form Definition File	92	0	A:COMMAAAB.DEM A:COMMAAAB.DBA	2852 87
26.	Diary Trucks Index File Form Definition File	55	2	A:DIARAAAB.DEM A:DIARAAAB.101 A:DIARAAAB.DBA	5187 1024 808
27.	Price Index Index File Form Definition File	129	0	A:PRICAAAA.DEM A:PRICAAAA.103 A:PRICAAAA.DBA	2709 2560 634
28.	File index Index File Index File Form Definition File	67	0	A:FILEAAAA.DEM A:FILEAAAA.101 A:FILEAAAA.103 A:FILEAAAA.DBA	16214 3584 2048 1948
29.	Trucks Index File Form Definition File	10	0	A:TRUCAAAB.DEM A:TRUCAAAB.101 A:TRUCAAAB.DBA	1460 1536 617
30.	Tractor & Trolly Form Definition File	0	0	A:TRACAAAA.DEM A:TRACAAAA.DBA	0 8580
31.	Monthly Index File Index File Form Definition File	531	61	A:MONTAAAB.DEM A:MONTAAAB.101 A:MONTAAAB.104 A:MONTAAAB.DBA	158656 3584 5120 6274
32.	Nodes Index File Form Definition File	134	0	A:NODEAAAA.DEM A:NODEAAAA.101 A:NODEAAAA.DBA	5628 3072 314
33.	Nodes2 Index File Form Definition File	132	2	A:NODEAAAB.DEM A:NODEAAAB.101 A:NODEAAAB.DBA	5628 3072 306

34.	Place name	39	0	A:PLACAAAA.DBM	3432
	Index File			A:PLACAAAA.101	1024
	Form Definition File			A:PLACAAAA.DBA	734
35.	Survey Trucks	52	0	A:SURVAAAA.DBM	4368
	Form Definition File			A:SURVAAAA.DBA	1710
36.	Links	176	1	A:LINKAAAA.DBM	11682
	Form Definition File			A:LINKAAAA.DBA	651
37.	Cost & Revenue Log	550	0	A:COSTAAAA.DBM	96800
	Index File			A:COSTAAAA.101	3072
	Index File			A:COSTAAAA.102	3072
	Index File			A:COSTAAAA.105	10752
	Index File			A:COSTAAAA.107	3072
	Form Definition File			A:COSTAAAA.DBA	2545

FORM Indepth4

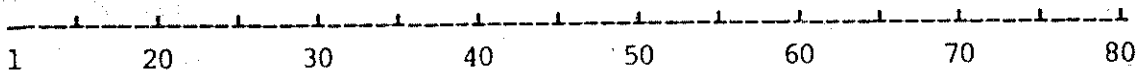
1 10 20 30 40 50 60 70 80

QUESTIONNAIRE REF NO. _____ Entered by _____ Checked by _____

- 1. Interviewer Code----- Place Code----- Date-----
- 2. Direction----- 3. Driver -----
- 4. Driver's Province -----5. Driving licence 19' -----
- 6. Years with truck----- 7. No. of drivers--- 8. No. of assistants ---
- 9. Loaded/Empty ----- 10. Cargo Code-----Cargo -----
- 11. Amount -----units ----- Calc Cargo weight -----tons
- 12. Full/Part ----- 13. Multiple town ODs -----
- 14. Load Origin Code ----- Load Destin Code-----
District ----- Distric (b) -----
- 15. Distance -----m/km ---- Standard Distance -----km
i) Journey time (hrs)---(days)---- Total journey time---hrs
- 16. Agent-----Agent's Charge Rs----- 17. Revenue ----Revenue for month--
- 18. Empty travel-----m? ----Calc past empty dist ----- kms
- 19. Empty time ----- Empty days ---- Total empty time ----- hrs
Revenue per E & F km -----Rs/km
- 20. Empty origin code----- 21. Empty destin code -----
District(c)----- District(d)-----
- 22. Empty distance -----km? ---- Calc distance(E)----km E or F dist -- km
- 23. Empty purpose ----- 24. Registered owner?-----
- 24 (i) Registered owner=-----
- 25 Driver, truck-----Ist Dr's wages----Rs/m expens-----Rsday
2nd Driver's wages----Rs/month expenses-----Rs/day
Conductor's wages----Rs/month expenses---Rs/day Tot expenses---Rs day
Month expenses-----Rs 26. Truck owner-----Tot lab costs-----

27. Driver Past Owner----- 28. No. of owners---- of truck
29. Other trucks----owned by driver 29(i). No. of others---wholly owned
29.(ii) No. partly owned----by driver 30. Truck base-- 31. Family base ---
32. Returns to base ----days 33. Return to family----days.
34. Rest taken---- times per month (ii) Rest for---days each time.
Total rest is---days per month. 35. Other trucks?---i)No.of trucks----
36. Finance questions?----- 37. Current value-----,000Rs
38. Truck acquired month----year 19--- 39. Lump sum?--Lum sum paid--,000Rs
39.ii) Money raised from: own resources (a)----,000Rs (a)----%
family loan (b)---,000 Rs (b)---% friends loan(c)----,000 Rs (c)---%
bank loan(d)----,000Rs (d)---% gift(e)----,000Rs (e)----%
agent's loan(f)----,000Rs (f)---% other sources(g)---,000Rs (g)----%
40.i) Purchase time value---,000Rs ii) Initial deposit---,000 Rs
iii) Total - deposit ---,000 Rs 41. Repayments unit(m)---unit 19---
Repayments for --- months 42. Monthly repayments-----Rs
43. Outstanding loan/HP---Late repayments?----Easy to meet?-----
44. Repayments to-----45. Insurance type -----
46. Insurance premium-----Rs 47. i) Off road for ---days in last month
ii) In 3 months off for ---days Estimate for year----days off
48. No. of tyres bought---every--months Calc. tyres per year ----
49. Monthly repairs---Rs 50. Dist per week ----m/k---
Calc kms per year ----- Repairs per km ---- Rs Tyres/1000 km----
ii) Fuel cost per week-----Rs Its per week--- Its/1000 km -----
51. No. of accidents ---in 1985 i) Most serious-----accident
ii) Accident type-----iii) Truck damage---Rs load damage----Rs
52. Driver's problems i)-----
ii)-----
iii)-----

53. REGISTRATION NO.----- 54. Make-----55.i) Model yr 19---
ii) Model type----- iii)Cylinders----56. Configuration -----
57. i) Main vehicle axles--- trailer axles-----
ii) Main vehicle wheels ---- trailer wheels,--- 58. Body type ---
59.i) Unladen Weight-----t/kg/m----Standard unladen wt----tons
ii) Laden Wt-----tons/kg/m-----Standard laden wt----tons
60. Tanker capacity-----gals/ltr----Standard capacity----lts
61. Licences:- NWFP----- Punjab-----Sind-----Baluchistan
Northern Areas ---- Azad Kashmir -----
62. Vehicle strengthened ? --- i) chassis ---ii) engine compartment---
iii) springs---iv) chassis lengthened----v)more powerful engine-----
vi) extra axle ---- vii) truck into tractor -----
viii) trailer chassis----- ix) trailer springs ---- trailer axle---
Other modifications?---- INTERVIEW QUALITY-----



FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record size	Record offset
1.	QUESTIONNAIRE REF NO	Number	5	Yes	Yes	Yes	No	No	2	24
	Number Type: Integer									
2.	Entered by	Number	1	No	No	No	No	No	1	26
	Number Type: Integer									
3.	Checked by	Number	1	No	No	No	No	No	1	27
	Number Type: Integer									
4.	Interviewer Code	Number	2	Yes	No	No	No	No	1	28
	Number Type: Integer									
5.	Place Code	Number	2	Yes	No	No	No	No	1	29
	Number Type: Integer									
6.	Date	Date	8	No	No	No	No	No	6	30
7.	Direction	Choice	12	Yes	No	No	No	No	1	36
	Choice field type name:									
	Choice 1: To Karachi									
	Choice 2: From Karachi									
8.	Driver	Choice	9	No	No	No	No	No	1	37
	Choice field type name:									
	Choice field type name:									
	Choice 1: Principal									
	Choice 2: Mate									
9.	Driver's Province	Choice	11	No	No	No	No	No	1	38
	Choice field type name:									
	Choice 1: NWFP									
	Choice 2: Punjab									
	Choice 3: Baluchistan									
	Choice 4: Sind									
	Choice 5: N Area									
	Choice 6: A Kashmir									
	Choice 7: Afganistan									
	Choice 8: Elsewhere									
10.	Driving licence	Number	19	No	No	No	No	No	1	39
	Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

11.	Years with truck	Number	2	No	No	No	No	No	1	40
	Number Type:	Integer								
12.	No. of drivers	Number	1	No	No	No	No	No	1	41
	Number Type:	Integer								
13.	No. of assistants	Number	1	No	No	No	No	No	1	42
	Number Type:									
14.	Loaded/Empty	Choice	6	No	No	No	No	No	1	43
	Choice field type name:									
	Choice 1:	Loaded								
	Choice 2:	Empty								
15.	Cargo Code	Text	3	No	No	No	No	No	3	44
16.	Cargo	Text	25	No	No	No	Yes	No	25	47
	Field calculation formula:	lookup Commodity Type								
17.	Amount	Number	9	No	No	No	No	No	8	72
	Number Type	fixed point								
	Digits to left of decimal=	7								
18.	units	Choice	8	No	No	No	No	No	1	80
	Choice field type name:									
	Choice 1:	tons								
	Choice 2:	maunds								
	Choice 3:	kg								
	Choice 4:	lbs								
	Choice 5:	cu ft								
	Choice 6:	cu metre								
	Choice 7:	ltrs								
	Choice 8:	gals								
	Choice 9:	number								
19.	Calt Cargo weight	Number	6	No	No	No	Yes	No	4	81
	Number Type:	Fixed point								
	Digits to left of decimal=	3								
	Field calculation formula:	Amount*lookup AA factor								
20.	Full/Part	Choice	9	No	No	No	No	No	1	85
	Choice field type name:									
	Choice 1:	full load								
	Choice 2:	part load								

FIELD DESCRIPTION (Continued)

21. Multiple town ODS Choice	3	No	No	No	No	No	1	86	
Choice field type name:									
Choice 1: no									
Choice 2: yes									
22. Load Origin Code Number	3	No	No	No	No	No	2	87	
Number Type:	Integer								
23. Load Destin Code Number	3	No	No	No	No	No	2	89	
Number Type:	Integer								
24. District	Text	15	No	No	No	Yes	No	15	91
Field calculation formula:	lookup District	District							
25. District(b)	Text	15	No	No	No	Yes	No	15	106
Field calculation formula:	lookup District2	District							
26. Distance	Number	5	No	No	No	No	No	2	121
Number Type:	Integer								
27. m/km	Choice	2	No	No	No	No	No	1	123
Choice field type name:									
Choice 1: m									
Choice 2: km									
28. Standard Distance Number	5	No	No	No	Yes	No	2	124	
Number Type:	Integer								
Field calculation formula:	Distance * lookup AB factor								
29. Journey time (hrs)	Number	2	No	No	No	No	No	1	126
Number Type:	Integer								
30. (days)	Number	2	No	No	No	No	No	1	127
Number Type:	Integer								
31. Total journey time	Number	3	No	No	No	Yes	No	2	128
Number Type:	Integer								
Field calculation formula:	Journey time (hrs) + ((days) * 24)								
32. Agent	Choice	3	No	No	No	No	No	1	130
Choice field type name:									
Choice 1: no									
Choice 2: yes									
33. Agent's Charge Rs	Number	5	No	No	No	No	No	2	131
Number Type:	Integer								
34. Revenue	Number	6	No	No	No	No	No	4	133
35. Revenue for month	Number	6	No	No	No	No	No	4	137
Number Type:	Integer								

FIELD DESCRIPTIONS (continued)

36.	Empty travel	Number	5	No	No	No	No	Yes	2	141
	Number Type:	Integer								
	Lower Range:	0								
	Upper Range:	3500								
37.	m	Choice	2	No	No	No	No	No	1	143
	Choice field type name:m.km									
	Choice 1: m									
	Choice 2: km									
38.	Calc past empty dist	Number	5	No	No	No	Yes	No	2	144
	Number Type:	Integer								
	Field calculation formula: Empty travel * lookup AC factor									
39.	Empty time	Number	5	No	No	No	No	No	4	146
	Number Type:	Fixed point								
	Digits to left of decimal=2									
40.	Empty days	Number	2	No	No	No	No	No	1	150
	Number Type:	Integer								
41.	Total empty time	Number	3	No	No	No	Yes	No	2	151
	Number Type:	Integer								
	Field calculation formula: Empty time + (Empty days * 24)									
42.	Revenue per E&F km	Number	6	No	No	No	Yes	No	4	153
	Number Type:	Fixed point								
	Digits to left of decimal = 2									
	Field calculation formula: Revenue/ (Standard Distance + Calc past empty dist)									
43.	Empty origin code	Number	3	No	No	No	No	No	2	157
	Number Type:	Integer								
44.	Empty destin code	Number	3	No	No	No	No	No	2	159
	Number Type:	Integer								
45.	District(c)	Text	15	No	No	No	Yes	No	15	161
	Field calculation formula: lookup District3 District									
46.	District(d)	Text	15	No	No	No	Yes	No	15	176
	Field calculation formula: lookup District4 District									
47.	Empty distance	Number	5	No	No	No	No	No	2	191
	Number Type:	Integer								

FIELD DESCRIPTIONS (Continued)

48. Km Choice 2 No No No No No 1 193
 Choice field type name:
 Choice 1: m
 Choice 2: km
49. Calc distance(E) Number 5 No No No Yes No 2 194
 Number Type: Integer
 Field calculation formula: Empty distance * lookup AD factor
50. E or F dist Number 5 No No No Yes No 2 196
 Number Type: Integer
 Field calculation formula: Standard distance + Calc distance(E)
51. Empty purpose Choice 16 No No No No No 1 198
 Choice field type name:
 Choice 1: Looking for load
 Choice 2: Return to depot/
 Choice 3: Settle accounts
 Choice 4: Visit home
 Choice 5: Collect money
 Choice 6: Repairs
 Choice 7: Recreation
 Choice 8: Passengers
 Choice 9: Purchases
 Choice 10: Others
52. Registered owner Choice 3 No No No No No 1 199
 Choice field type name:
 Choice 1: no
 Choice 2: yes
53. Registered owner=Choice 29 No No No No No 1 200
 Choice field type name:
 Choice 1: Sole owner
 Choice 2: Joint owner
 Choice 3: Provides HP but not involved
 Choice 4: Previous owner
 Choice 5: Hires out truck
 Choice 6: Government, Public Corporation
 Choice 7: Commercial company
 Choice 8: Others
54. Driver, truck Choice 22 No No No No No 1 201
 Choice field type name:
 Choice 1: HP to driver
 Choice 2: Hp to driver + other
 Choice 3: Driver is sole owner
 Choice 4: Driver has part share
 Choice 5: Regular employee
 Choice 6: Rented truck
 Choice 7: Truck borrowed

FIELD DESCRIPTIONS (Continued)

55.	Ist Driver's wages Number	5	No	No	No	No	No	2	202
	Number Type:	Integer							
56.	Ist Dr. expenses Number	3	No	No	No	No	No	2	204
	Number Type:	Integer							
57.	2nd Driver's wages Number	5	No	No	No	No	No	2	206
	Number Type:	Integer							
58.	2nd Dr. expenses Number	3	No	No	No	No	No	2	208
	Number Type:	Integer							
59.	Conductor's wages Number	5	No	No	No	No	No	2	210
	Number Type:	Integer							
60.	Conductor's expen. Number	3	No	No	No	No	No	2	212
	Number Type:	Integer							
61.	Total expenses Number	3	No	No	No	Yes	No	2	214
	Number Type:	Integer							
	Field calculation formula: Ist Dr. expenses + ((No of drivers-1)*2nd Dr. expenses) + (No of assistants * Conductor's expenses)								
62.	Month expenses Number	5	No	No	No	Yes	No	2	216
	Number Type:	Integer							
	Field calculation formula: Total expenses * 30								
63.	Truck owner Choice	22	No	No	No	No	No	1	218
	Choice field type name:								
	Choice 1: Federal Government								
	Choice 2: Provincial Government								
	Choice 3: Public Corporation								
	Choice 4: Commercial company								
	Choice 5: Private Individual								
	Choice 6: Family partnership								
	Choice 7: Non Family Partnership								
	Choice 8: Others								
64.	Total labour costs Number	5	No	No	No	Yes	No	2	219
	Number Type:	Integer							
	Field calculation formula: Month expenses + Ist Driver's wages + ((No of drivers-1) * 2nd Driver's wages) + (No of assistants * Conductor's wages)								
65.	Driver Past Owner Choice	3	No	No	No	No	No	1	221
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
66.	No of owners Number	2	No	No	No	No	No	1	222
	Number Type:	Integer							

FIELD DESCRIPTIONS (Continued)

67.	Other trucks	Choice	3	No	No	No	No	No	1	223
	Choice field type Name:									
	Choice 1: no									
	Choice 2: yes									
68.	No of others	Number	2	No	No	No	No	No	1	224
	Number Type: Integer									
69.	No. party owned	Number	2	No	No	No	No	No	1	225
	Number Type: Integer									
70.	Truck base	Number	3	No	No	No	No	No	2	226
	Number Type: Integer									
71.	Family base	Number	3	No	No	No	No	No	2	228
	Number Type: Integer									
72.	Returns to base	Number	3	No	No	No	No	No	2	230
	Number Type: Integer									
73.	Return to family	Number	3	No	No	No	No	No	2	232
	Number Type: Integer									
74.	Rest taken	Number	2	No	No	No	No	No	1	234
	Number Type: Integer									
75.	Rest for	Number	2	No	No	No	No	No	1	235
	Number Type: Integer									
76.	Total rest is	Number	2	No	No	No	Yes	No	1	236
	Number Type: Integer									
	Field calculation formula: Rest taken * Rest for									
77.	Others trucks?	Choice	3	No	No	No	No	No	1	237
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
78.	No. of trucks	Number	5	No	No	No	No	No	2	238
	Number Type: Integer									
79.	Finance questions	Choice	3	No	No	No	No	No	1	240
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
80.	Current value	Number	5	No	No	No	No	No	2	241
	Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

81.	Truck acquired month	Number	2	No	No	No	No	Yes	1	243
	Number Type:	Integer								
	Lower Range:	0								
	Upper Range:	12								
82.	Year 19	Number	2	No	No	No	No	No	1	244
	Number Type:	Integer								
83.	Lump sum	Choice	3	No	No	No	No	No	1	245
	Choice field type name:									
	Choice 1:	no								
	Choice 2:	yes								
84.	Lump sum paid	Number	5	No	No	No	No	No	2	246
	Number Type:	Integer								
85.	Own resources (a)	Number	5	No	No	No	No	No	2	248
	Number Type:	Integer								
86.	(a)	Number	3	No	No	No	Yes	No	2	250
	Number Type:	Integer								
	Field calculation formula:	((Own resources(a)/lump sum paid) * 100								
87.	Family loan (b)	Number	5	No	No	No	No	No	2	252
	Number Type:	Integer								
88.	(b)	Number	3	No	No	No	Yes	No	2	254
	Number Type:	Integer								
	Field calculation formula:	(Family loan (b)/lump sum paid) * 100								
89.	Friend loan (c)	Number	5	No	No	No	No	No	2	256
	Number Type:	Integer								
90.	(c)	Number	3	No	No	No	Yes	No	2	258
	Number Type:	Integer								
	Field calculation formula:	(Friends loan(c)/lumpsum paid) * 100								
91.	Bank Loan (d)	Number	5	No	No	No	No	No	2	260
	Number Type:	Integer								
92.	(d)	Number	3	No	No	No	Yes	No	2	262
	Number Type:	Integer								
	Field calculation formula:	(Bank loan (d) / lump sum paid) * 100								
93.	Gift (e)	Number	5	No	No	No	No	No	2	264
	Number Type:	Integer								

FIELD DESCRIPTIONS (Continued)

94.	(e)	Number	3	No	No	No	Yes	No	2	266
		Number Type:	Integer							
		Field calculation formula: (Gift (e)/lump sum paid) * 100								
95.	Agent's loan (f)	Number	5	No	No	No	No	No	2	268
		Number Type:	Integer							
96.	(f)	Number	3	No	No	No	Yes	no	2	270
		Number Type:	Integer							
		Field calculation formula: (Agent's loan (f)/ lump sum paid) * 100								
97.	Others sources (g)	Number	5	No	No	No	No	No	2	272
		Number Type:	Integer							
98.	(g)	Number	3	No	No	No	Yes	No	2	274
		Number Type:	Integer							
		Field calculation formula: (Other sources (g) / lump sum paid) * 100								
99.	Purchase time value	Number	5	No	No	No	No	No	2	276
		Number Type:	Integer							
100.	Initial deposite	Number	3	No	No	No	No	No	2	278
		Number Type:	Integer							
101.	Total-Deposit	Number	5	No	No	No	No	No	2	280
		Number Type:	Integer							
102.	Repayments until(m)	Number	2	No	No	No	No	Yes	1	282
		Number Type:	Integer							
		Low Range :	1							
		Upper Range:	12							
103.	Until 19	Number	2	No	No	No	No	No	1	283
		Number Type:	Integer							
104.	Repayments for	Number	3	No	No	No	No	No	2	284
		Number Type:	Integer							
105.	Monthly repayments	Number	6	No	No	No	No	No	4	286
		Number Type:	Integer							
106.	Outstanding loan/HP	Choice	3	No	No	No	No	No	1	290
		Choice field type name:								
		Choice 1:	no							
		Choice 2:	yes							

FIELD DESCRIPTIONS (Continued)

107.	Late repayments	Choice	3	No	No	No	No	No	1	291
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
108.	Easy to meet	Choice	14	No	No	No	No	No	1	292
	Choice field type name:									
	Choice 1: easy									
	Choice 2: difficult									
	Choice 3: very difficult									
	Choice 4: impossible									
109.	Repayment to	Choice	18	No	No	No	No	No	1	293
	Choice field type name:									
	Choice 1: Bank/Finance house									
	Choice 2: Relative									
	Choice 3: Friend									
	Choice 4: Vehicle saller									
	Choice 5: Agent/Money lender									
	Choice 6: Others									
110.	Insurance type	Choice	23	No	No	No	No	No	1	294
	Choice field type name:									
	Choice 1: None									
	Choice 2: Franchies Certificate									
	Choice 3: Third party (Act)									
	Choice 4: Third party (Risk)									
	Choice 5: Third party + Additions									
	Choice 6: Comprehansive									
	Choice 7: Other									
111.	Insurance preium	Number	6	No	No	No	No	No	4	295
	Number Type:	Integer								
112.	Off road for	Number	2	No	No	No	No	No	1	299
	Number Type:	Integer								
113.	In three month off for	Number	2	No	No	No	Yes	No	1	300
	Number Type:	Integer								
	Field calculation formula: Off road for * 3									
114.	Estimate for year	Number	3	No	No	No	Yes	No	2	301
	Number Type:	Integer								
	Field calculation formula: In three month off for * 4									
115.	Number of tyres bought	Number	2	No	No	No	No	No	1	303
	Number Type:	Integer								

FIELD DESCRIPTIONS (Continued)

116.	Every	Number	2	No	No	No	No	No	1	304
	Number Type:	Integer								
117.	Tyres per years	Number	7	No	No	No	Yes	No	8	305
	Number Type:	Fixed Point								
	Digits to left of decimal =	3								
	Field calculation formula:	(Number: of tyres bought/every) * 12								
118.	Monthly repairs	Number	6	No	No	No	No	No	4	313
	Number Type:	Integer								
119.	Dist per week	Number	5	No	No	No	No	No	2	317
	Number Type:	Integer								
120.	m/k	Choice	2	No	No	No	No	No	1	319
	Choice field type name:									
	Choice 1:	m								
	Choice 2:	km								
121.	Calc kms per year	Number	7	No	No	No	Yes	No	4	320
	Number Type:	Integer								
	Field calculation formula:	(Dist per week * lookup AE factor)/7) * (365-estimate for year)								
122.	Repairs per km	Number	6	No	No	No	Yes	No	4	324
	Number Type:	fixed point								
	Digits to left of decimal =	2								
	Field calculation formula:	(Monthly repairs * 12)/Calc kms per year								
123.	Tyres/1000 km	Number	5	No	No	No	Yes	No	4	328
	Number Type:	fixed point								
	Digits to left of decimal =	1								
	Field calculation formula:	(Tyres per year/Calc kms per year) * 1000								
124.	Fuel cost per week	Number	6	No	No	No	No	No	4	332
	Number Type:	Integer								
125.	lts per week	Number	5	No	No	No	Yes	No	2	336
	Number Type:	Integer								
	Field calculation formula:	Fuel cost per week/4.35								
126.	lts/1000 km	Number	7	No	No	No	Yes	No	4	338
	Number Type:	fixed point								
	Digits to left of decimal =	5								
	Field calculation formula:	lts per week * 1000/(Dist per week * lookup AF factor)								

FIELD DESCRIPTIONS (Continued)

127.	No. of accidents	Number	2	No	No	No	No	No	1	342
	Number Type:	Integer								
128.	Most serious	Choice	12	No	No	No	No	No	1	343
	Choice field type name:									
	Choice 1:	fatal								
	Choice 2:	Hospitalised								
	Choice 3:	Minor								
	Choice 4:	no injury								
129.	Accident type	Choice	12	No	No	No	No	No	1	344
	Choice field type name:									
	Choice 1:	nose to tail								
	Choice 2:	side								
	Choice 3:	head on								
	Choice 4:	pedestrian								
	Choice 5:	animal								
	Choice 6:	obstacle								
	Choice 7:	road over								
	Choice 8:	other								
130.	Truck damage	Number	7	No	No	No	No	No	4	345
	Number Type:	Integer								
131.	Load damage	Number	9	No	No	No	No	No	4	349
	Number Type:	Integer								
132.	i)	Choice	30	No	No	No	No	No	1	353
	Choice field type name:									
	Choice 1:	police								
	Choice 2:	low tariffs								
	Choice 3:	difficult to find loads								
	Choice 4:	vehicle brake down								
	Choice 5:	poor roads								
	Choice 6:	high expenses, fuel costs etc.								
	Choice 7:	competition								
	Choice 8:	finding spare parts								
	Choice 9:	district tax								
	Choice10:	difficult to meet HP/loans								
	Choice11:	low salary for drivers								
	Choice12:	problems for raising finance/HP								
	Choice13:	driver's un-employment								
	Choice14:	unnecessary delays								
	Choice15:	other problems								

FIELD DESCRIPTIONS (Continued)

133.	ii)	Choice	30	No	No	No	No	No	1	354
		Choice field type name:								
		Choice 1: police								
		Choice 2: low tariffs								
		Choice 3: difficult to find loads								
		Choice 4: vehicle breakdown								
		Choice 5: poor roads								
		Choice 6: high expenses, fuel costs etc.								
		Choice 7: competition								
		Choice 8: finding spare parts								
		Choice 9: district tax								
		Choice10: difficult to meet HP/loans								
		Choice11: low salary for drivers								
		Choice12: problems of raising finance/HP								
		Choice13: driver's unemployment								
		Choice14: unnecessary delays								
		Choice15: other problems								
134.	iii)	Choice	30	No	No	No	No	No	1	355
		Choice field type name:								
		Choice 1: police								
		Choice 2: low tariffs								
		Choice 3: difficult to find loads								
		Choice 4: Vehicle breakdown								
		Choice 5: poor roads								
		Choice 6: high expenses, fuel costs etc.								
		Choice 7: competition								
		Choice 8: finding spare parts								
		Choice 9: district tax								
		Choice10: difficult to meet HP/loans								
		Choice11: low salary for drivers								
		Choice12: problems of raising finance/HP								
		Choice13: drivers unemployment								
		Choice14: unnecessary delays								
		Choice15: fear of robbers (in Sind?)								
135.	REGISTRATION NO.	Text	12	No	Yes	Yes	No	No	12	356
136.	Make	Choice	13	No	No	No	No	No	1	368
		Choice field type name:								
		Choice 1: bedford								
		Choice 2: BMC/leyland								
		Choice 3: fiat								
		Choice 4: ford								
		Choice 5: hino								
		Choice 6: isuzu								
		Choice 7: international								
		Choice 8: man								
		Choice 9: mazda								
		Choice10: mercedes								

FIELD DESCRIPTIONS (Continued)

	Choice 11: mitsubishi									
	Choice 12: nissan									
	Choice 13: saviem									
	Choice 14: toyota									
	Choice 15: others									
137.	Model year 19	Number	2	No	No	No	No	No	1	369
	Number Type:	Integer								
138.	Model Type:	Text	12	No	No	No	No	No	12	370
139.	Cylinders	Number	2	No	No	No	No	No	1	382
	Number Type:	Integer								
140.	Configuration	Choice	18	No	No	No	No	No	1	383
	Choice field type name:									
	Choice 1: Rigid									
	Choice 2: Tractor+s. Trailer									
	Choice 3: Tractor alone									
	Choice 4: Truck + Trailer									
	Choice 5: Other									
141.	Main vehicle axles	Number	2	No	No	No	No	No	1	384
	Number Type:	Integer								
142.	Trailer axle	Number	2	No	No	No	No	No	1	385
	Number Type:	Integer								
143.	Main vehicle wheels	Number	2	No	No	No	No	No	1	386
	Number Type:	Integer								
144.	Trailer wheels	Number	2	No	No	No	No	No	1	387
	Number Type:	Integer								
145.	Body type	Choice	10	No	No	No	No	No	1	388
	Choice field type name:									
	Choice 1: Flat									
	Choice 2: High sided									
	Choice 3: Low sided									
	Choice 4: Box									
	Choice 5: Tanker									
	Choice 6: Tipper									
	Choice 7: Low loader									
	Choice 8: Other									
146.	Unladen weight	Number	8	No	No	No	No	No	8	389
	Number Type: fixed point									
	Digits to left of decimal = 6									

FIELD DESCRIPTION (Continued)

147.	T/kg/m	Choice	6	No	No	No	No	No	1	397
	Choice field type name:									
	Choice 1: Tons									
	Choice 2: Kg									
	Choice 3: Maunds									
148.	Standard unladen wt.	Number	4	No	No	No	Yes	No	4	398
	Number Type: fixed Point									
	Digits to left of decimal = 2									
	Field calculation formula: Unladen weight * lookup AB factor									
149.	Laden wt.	Number	8	No	No	No	No	No	8	402
	Number Type: fixed point									
	Digits to left of decimal = 6									
150.	Tons/Kg/m	Choice	6	No	No	No	No	No	1	410
	Choice field type name:									
	Choice 1: Tons									
	Choice 2: Kg									
	Choice 3: Maunds									
151.	Standard laden wt.	Number	5	No	No	No	Yes	No	4	411
	Number Type: fixed point									
	Digits to left of decimal = 3									
	Field calculation formula: Laden weight * lookup AH factor									
152.	Tanker capacity	Number	6	No	No	No	No	No	4	415
	Number Type: Integer									
153.	gals/lts	Choice	4	No	No	No	No	No	1	419
	Choice field type name:									
	Choice 1: gals									
	Choice 2: lts									
154.	Standard capacity	Number	6	No	No	No	Yes	No	4	420
	Number type: Integer									
	Field calculation formula: Tanker capacity * lookup AI factor									
155.	NWFP	Choice	3	No	No	No	No	No	1	424
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									

Contd...p/57..

FIELD DESCRIPTIONS (Continued)

156.	Punjab	Choice	3	No	No	No	No	No	1	425
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
157.	Sind	Choice	3	No	No	No	No	No	1	426
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
158.	Baluchistan	Choice	3	No	No	No	No	No	1	427
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
159.	Northern Areas	Choice	3	No	No	No	No	No	1	428
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
160.	Azad Kashmir	Choice	3	No	No	No	No	No	1	429
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
161.	Vehicle strengthened	Choice	3	No	No	No	No	No	1	430
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
162.	Chassis	Choice	3	No	No	No	No	No	1	431
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
163.	engine compartment	Choice	3	No	No	No	No	No	1	432
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
164.	springs	Choice	3	No	No	No	No	No	1	433
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									

FIELD DESCRIPTIONS (Continued)

165.	Chassis lengthened Choice	3	No	No	No	No	No	1	434
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
166.	more powerful engine Choice	3	No	No	No	No	No	1	435
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
167.	extra axle Choice	3	No	No	No	No	No	1	436
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
168.	truck into tractor Choice	3	No	No	No	No	No	1	437
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
169.	trailer chassis Choice	3	No	No	No	No	No	1	438
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
170.	trailer springs Choice	3	No	No	No	No	No	1	439
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
171.	trailer axle Choice	3	No	No	No	No	No	1	440
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
172.	Other modifications Choice	3	No	No	No	No	No	1	441
	Choice field type name:								
	Choice 1: no								
	Choice 2: yes								
173.	INTERVIEW QUALITY Choice	12	No	No	No	No	No	1	442
	Choice field type name:								
	Choice 1: very good								
	Choice 2: good								
	Choice 3: satisfactory								
	Choice 4: doubtful								

Record size 443

Memory required for form: Text 5158, Fields 9713, Total 14871 bytes.

VEHICLE UTILIZATION SURVEY MAY, 1985

TTRL NTRC PAKISTAN FREIGHT TRANSPORT PROJECT
 BLOCK 4-B, AL-MARKAZ F-7, ISLAMABAD

REF. NO. NAME OF DRIVER ADDRESS PHONE NO. CITY NO.
 NO. OF DRIVERS REGISTRATION NO. NO. OF AXLES UNLADEN WEIGHT
 LADEN WEIGHT TON MAKE
 ORD. TRUCK TANKER FLAT BODY OTHER PLACE DATE

START Date Time	ACTIVITIES	FINISH				WHEN THE VEHICLE MOVING				Detail of Cargo			
		DATE	TIME	Origin, Destination, in Miles	Distance	HOW MUCH TRUCK LOADED	Empty	1/4	1/2		3/4	Full	
	1. Moving 2. Waiting for Loading or Unloading 3. Loading 4. Un-Loading 5. Resting 6. Stop due to Emergency condition. 7. Repair		Morning Noon Evening Night										

FORM Survey Trucks

1 10 20 /30 40 50 60 70 80

NTRC Ref No ___ Travel.Dat Seq. from ___ to ___

Group Code No ___ Registration No _____ Make _____

No of Axles ___ No of Drivers ___ Model Year 19 ___

Truck Type _____

Date Start _____ Date Finish _____ No of days _____

No of loaded trips ___ No of empty trips ___ Total trips _____

trips per day ___ Total kms ___ Per cent kms loaded _____

Reported fuel used _____ lts(+) Correction _____ lts/km _____

To Gilgit/Skardu ___ From original Cost & Revenue Log:
Missed loaded trips ___ Missed loaded ___ kms
Missed empty trips ___ Missed empty ___ kms

1 10 20 30 40 50 60 70 80

FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record size	offset
1.	NTRC Ref No	Number	2	Yes	No	Yes	No	No	1	6
	Number Type: Integer									
2.	Travel.Dat Seq. from	Number	6	No	No	No	No	No	4	7
	Number Type: Integer									
3.	to	Number	6	No	No	No	No	No	2	11
	Number Type: Integer									
4.	Group Code No.	Number	2	Yes	No	Yes	No	No	1	15
	Number Type: Integer									
5.	Registration No.	Text	10	No	No	No	No	No	10	16
6.	Make 1	Choice	13	No	No	No	No	No	1	26
	Choice field type name:									
	Choice 1: Bedford									
	Choice 2: BMC/Leland									
	Choice 3: Fiat									
	Choice 4: Ford									
	Choice 5: Hino									
	Choice 6: Isuzu									
	Choice 7: International									
	Choice 8: Man									
	Choice 9: Mazda									
	Choice 10: Mercedes									
	Choice 11: Mitsibishi									
	Choice 12: Nissan									
	Choice 13: Saviem									
	Choice 14: Toyota									
	Choice 15: Other									
7.	No. of Axles	Number	1	No	No	No	No	No	1	27
	Number Type: Integer									
8.	No. of Drivers	Number	1	No	No	No	No	No	1	28
	Number Type: Integer									
9.	Model year	Number	2	No	No	No	No	No	1	29
	Number Type: Integer									
10.	Truck Type	Choice	15	No	No	No	No	No	1	30
	Choice field type name:									
	Choice 1: Simple truck									
	Choice 2: Tanker									
	Choice 3: Flat body									

FIELD DESCRIPTIONS (Continued)

		Choice 4: Tractor trailer					Choice 5: Other				
11.	Date Start	Date	8	No	No	No	No	No	6	31	
12.	Date Finish	Date	8	No	No	No	No	No	6	37	
13.	No. of days	Number	2	No	No	No	No	No	1	43	
		Number Type: Integer									
14.	No. of loaded trips	Number	2	No	No	No	No	No	1	44	
		Number Type: Integer									
15.	No. of empty trips	Number	2	No	No	No	No	No	1	45	
		Number Type: Integer									
16.	Total Trips	Number	2	No	No	No	Yes	No	1	46	
		Number Type: Integer									
		Field calculation formula: No. of loaded trips+No. of empty trips									
17.	Trips per day	Number	4	No	No	No	Yes	No	4	47	
		Number Type: Fixed point									
		Digits to left of decimal = 1									
		Field calculation formula: Total trips/No. of days									
18.	Total kms	Number	6	No	No	No	No	No	4	51	
		Number Type: Integer									
19.	Per cent kms loaded	Number	4	No	No	No	No	No	4	55	
		Number Type: Fixed point									
		Digits to left of decimal = 1									
20.	Reported fuel used	Number	7	No	No	No	No	No	4	59	
		Number Type: Fixed point									
		Digits to left of decimal = 5									
21.	Correction	Number	4	No	No	No	No	No	4	63	
		Number Type: Floating point									
22.	lts/km	Number	5	No	No	No	Yes	No	4	67	
		Number Type: Floating point									
		Field calculation formula: (Reported fuel used+Correction)/total kms									
23.	To Gilgit/Skardu	Choice	3	No	No	No	No	No	1	71	
		Choice field type name:									
		Choice 1: no									
		Choice 2: yes									

FIELD DESCRIPTION (Continued)

24. Missed loaded trips	Number	3	No	No	No	No	No	2	72
Number Type: Integer									
25. Missed loaded	Number	6	No	No	No	No	No	4	74
Number Type: Integer									
26. Missed empty trips	Number	3	No	No	No	No	No	2	78
Number Type: Integer									
27. Missed empty	Number	6	No	No	No	No	No	4	80
Number Type: Integer									

Record size 84

Memory required for form: Text 628, Fields 1070, Total 1698 bytes.

Survey Trucks: Key Data Relating To The Travelling Interviewer Survey

Group Code No.	Registration No	Make	Start Date	Finish Date	No of days	No of trips		Travel.Dat Sequence Nos.	
						loaded	empty	from	to
1.	RLJ 9145	Bedford	03.07.85	15.07.85	13	6	4	1	131
2.	ADA 2216	Bedford	03.07.85	09.07.85	7	4	4	3,000	3,078
3.	TRP 2065	Mercedes	07.10.85	22.10.85	16	6	6	235	393
4.	RIL 7216	Bedford	03.07.85	12.07.85	10	4	4	3,101	3,173
5.	KS 8384	Bedford	01.11.85	16.11.85	16	27	3	457	573
6.	KS 8384	Bedford	17.10.85	31.10.85	15	31	13	3,201	3,319
7.	TRP 1505	Mercedes	21.11.85	01.12.85	11	6	5	700	824
8.	QAB 8374	Bedford	08.05.86	14.05.86	7	6	4	850	934
9.	GLT 2774	Bedford	07.09.85	25.09.85	19	10	10	960	1,131
10.	TRP 3506	Mercedes	17.07.85	02.08.85	17	7	6	1,150	1,303
11.	TRP 3506	Mercedes	23.08.85	08.09.85	17	8	8	1,310	1,485
12.	TRP 3506	Mercedes	20.09.85	07.10.85	18	8	8	1,490	1,678
13.	TRP 3506	Mercedes	08.10.85	26.10.85	19	8	8	1,681	1,857
14.	GLT 2774	Bedford	08.02.86	13.02.86	6	4	4	1,860	1,955
15.	GLT 4222	Bedford	19.02.86	10.03.86	20	9	5	1,970	2,163
17.	AJK 6373	Bedford	11.02.86	27.02.86	16	17	2	2,200	2,491
19.	FDA 3635	Bedford	15.03.86	30.03.86	16	13	12	2,500	2,638
20.	TRP 3506	Mercedes	11.02.86	27.02.86	17	12	13	2,650	2,772
21.	TRP 3506	Mercedes	14.03.86	30.03.86	17	6	6	2,800	2,918
22.	TRP 3506	Mercedes	30.03.86	15.04.86	17	5	5	3,350	3,437
23.	FDA 3536	Bedford	01.04.86	15.04.86	15	14	15	3,460	3,588
24.	GLT 4222	Bedford	16.03.86	17.04.86	33	11	6	3,600	4,039
26.	AJKA 6373	Bedford	03.04.86	01.05.86	29	16	18	4,150	4,446
28.	FDA 3635	Bedford	16.04.86	01.05.86	16	18	20	4,550	4,677
29.	TRP 3506	Mercedes	15.04.86	30.04.86	16	5	4	4,700	4,821
30.	AJKA 6373	Bedford	08.03.86	27.03.86	20	10	10	4,850	4,962
31.	AJKA 6373	Bedford	19.03.86	02.04.86	7	4	4	5,000	5,146
32.	KI 855-220	Bedford	16.05.86	20.05.86	5	1	1	5,150	5,221
33.	GLT 4222	Bedford	08.05.86	16.05.86	9	2	2	5,250	5,342
34.	DNA 5455	Bedford	09.07.86	27.07.86	19	18	25	8,400	8,694
35.	DNA 5455	Bedford	18.06.86	24.06.86	7	5	4	5,530	5,615
36.	AJKA 6373	Bedford	06.05.86	17.05.86	12	8	7	5,650	5,804
37.	GLT 2774	Bedford	13.07.86	26.07.86	15	5	3		
38.	FDA 3635	Bedford	01.05.86	15.05.86	15	21	28	5,950	6,075
40.	GLT 4222	Bedford	12.06.86	26.06.86	15	3	3	6,109	6,348
42.	KS 8384	Bedford	02.10.85	16.10.85	15	18	9	6,556	6,665
43.	FDE 9064	Bedford	15.09.86	30.09.86	16	19	11	6,700	6,849
44.	QAB 8374	Bedford	02.03.86	15.03.86	14	11	2	6,870	7,049
45.	KCI 1855-220	Bedford	26.05.86	05.06.86	11	7	7	7,060	7,198
46.	KS 8384	Bedford	06.04.86	20.04.86	15	10	5	7,230	7,398
47.	KS 8384	Bedford	22.03.86	05.04.86	16	19	3	7,450	7,723
48.	TRP 1932	Mercedes	08.09.85	15.09.85	8	3	3	7,850	7,910
49.	GLT 4222	Bedford	01.09.85	16.09.85	16	3	2	7,950	8,055
50.	TRP 3583	Mercedes	25.09.85	02.10.85	8	2	2	8,080	8,127
51.	TRP 401	Mercedes	02.09.85	07.09.85	6	2	2	8,150	8,188
52.	TRP 3506	Mercedes	12.02.86	27.02.86	16	8	5	8,250	8,390

FORM Cost & Revenue Log /

1 10 20 30 40 50 60 70 80

Group Code No. ___ Trip No. ___ last trip ___ Make ___ Trip Seq No. ___

Missing Trip ___ Missing Trip No. ___

Date from ___ Date to ___ Direction ___

Trip Origin ___ from ___ Origin town ___

Trip Destination ___ to ___ Destination town ___

Loaded/Empty ___ Cargo Code ___ Cargo ___

Trip Distance ___ m/km ___ Standard dist ___ km

Ist Load Seq No. ___ Last Unload Seq No. ___ (from Travel.Dat Data)

Expenditures Rs:- Diesel ___ Oil ___ Grease ___

Agency Comm ___ Labour for loading ___ Octroi ___ Police ___

Tyre Repairs ___ Other Repairs ___ Food and wages ___ Other Costs ___

Total Earnings: ___ Total Expenditure ___ Profit/loss ___

1 10 20 30 40 50 60 70 80

FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record size	Record offset
1.	Group Code No Number Type: Integer	Number	2	Yes	Yes	Yes	No	No	1	7
2.	Trip No Number Type: Integer	Number	2	Yes	Yes	Yes	No	No	1	8
3.	last trip Choice field type name: Choice 1: no Choice 2: yes	Choice	3	No	No	No	No	No	1	9
4.	Make Choice field type name: Choice 1: Bedford Choice 2: BMC/Leyland Choice 3: Fiat Choice 4: Ford Choice 5: Hino Choice 6: Isuzu Choice 7: International Choice 8: Man Choice 9: Mazda Choice 10: Mercedes Choice 11: Mitsubishi Choice 12: Nissan Choice 13: Saviem Choice 14: Toyota Choice 15: Other	Choice	13	No	No	No	Yes	No	1	10
	Field calculation formula: lookup "Survey Trucks""Make 1"									
5.	Trip Seq No. Field calculation formula: sequence from 0001	Numeric String	4	Yes	Yes	Yes	Yes	No	4	11
6.	Missing Trip Choice field type name: Choice 1: no Choice 2: yes	Choice	3	No	No	No	No	No	1	15
7.	Missing Trip No. Number Type: Integer	Number	2	No	Yes	Yes	No	No	1	16

FIELD DESCRIPTIONS (Continued)

8.	Date from	Date	8	No	No	No	No	No	6	17
9.	Date to	Date	8	Yes	No	No	No	No	6	23
10.	Direction	Choice	12	No	No	No	No	No	1	29
	Choice field type name:									
	Choice 1: To Karachi									
	Choice 2: from Karachi									
11.	Trip Origin	Number	3	No	No	No	No	No	2	30
	Number Type: Integer									
12.	from	Text	15	No	No	No	Yes	No	15	32
	Field calculation formula: lookup District District									
13.	Origin town	Text	18	No	No	No	No	No	18	47
14.	Trip Destination	Number	3	No	No	No	No	No	2	65
	Number Type: Integer									
15.	to	Text	15	No	No	No	Yes	No	15	67
	Field calculation formula: lookup District2 District									
16.	Destination town	Text	18	No	No	No	No	No	18	82
17.	Loaded/Empty	Choice	6	No	No	No	No	No	1	100
	Choice field name:									
	Choice 1: Loaded									
	Choice 2: Empty									
18.	Cargo Code	Text	3	No	No	No	No	No	3	101
19.	Cargo	Text	25	No	No	No	Yes	No	25	104
	Field calculation formula: lookup Commodity Type									
20.	Trip Distance	Number	5	No	No	No	No	No	2	129
	Number Type: Integer									
21.	m/km	Choice	2	No	No	No	No	No	1	131
	Choice field type name:									
	Choice 1: m									
	Choice 2: km									

FIELD DESCRIPTIONS (Continued)

22. Standard dist	Number	5	No	No	No	Yes	No	2	132
Number Type: Integer									
Field calculation formula: Trip Distance * lookup AB factor									
23. Ist Load Seq No.	Number	5	No	No	No	No	No	2	134
Number Type: Integer									
24. Last Unload Seq No.	Number	5	No	No	No	No	No	2	136
Number Type: Integer									
25. Rs Diesel	Number	5	No	No	No	No	No	2	138
Number Type: Integer									
26. Oil	Number	5	No	No	No	No	No	2	140
Number Type: Integer									
27. Grease	Number	5	No	No	No	No	No	2	142
Number Type: Integer									
28. Agency Comm	Number	5	No	No	No	No	No	2	144
Number Type: Integer									
29. Labour	Number	5	No	No	No	No	No	2	146
Number Type: Integer									
30. Octroi	Number	5	No	No	No	No	No	2	148
Number Type: Integer									
31. Police	Number	5	No	No	No	No	No	2	150
Number Type: Integer									
32. Tyre Repairs	Number	5	No	No	No	No	No	4	152
Number Type: Integer									
33. Other Repais	Number	6	No	No	No	No	No	4	156
Number Type: Integer									
34. Food	Number	5	No	No	No	No	No	2	160
Number Type: Integer									
35. Other Costs	Number	5	No	No	No	No	No	2	162
Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

36. Total Earnings Number 6 No No No No No 4 164

Number Type: Integer

37. Total Expenditure Number 6 No No No Yes No 4 168

Number Type: Integer

Field calculation formula: Rs Diesel + Oil+Grease+Agency Comm +
Labour + Octori + Police + Tyre Repairs + Other Repairs + Food +
Other Costs.

38. Profit/loss Number 6 No No No Yes No 4 172

Number Type: Integer

Field calculation formula: Total Earnings - Total Expenditure

Record size 176

Memory required for form: Text 847, Fields 1686, Total 2533 bytes.

NATIONAL TRANSPORT RESEARCH CENTRE

/ + + +

FREIGHT AGENT'S SURVEY

S.No Interviewer:

1. Agency Name:

2. Location:

3. Nature of ownership:

Single owner Partnership (Not Partners)

Limited company Public Sector Corporation

4. Does the agency have branches/associated

companies elsewhere in Pakistan?

Total No. of Branches _____ main location _____

5. Main type of business undertaken (relating to freight transport).

i) Freight forwarding/consigning.

Give approximate percentage breakdown of consigning business:

By road (Private) _____ % By NLC _____ %

By rail _____ % By By air _____ %

For export _____ %

ii) Running own transport vehicles

Type of trucks a. _____ Number _____

b. _____

c. _____

- iii) Operating a warehouse
Locations _____ Size _____
- iv) Providing Hire purchase/Lending money for vehicle
purchase Yes _____ No _____
- v) Buying/Selling vehicles Yes _____ No _____
- vi) Importer/Exporter Yes _____ No _____
- vii) Import clearing agent Yes _____ No _____
- viii) Wholesaler/retailer Yes _____ No _____
- ix) Other business _____ Type _____

6. Does this office have.

- a) A working telephone Yes _____ No _____
- b) Electricity Yes _____ No _____
- c) Direct post delivery Yes _____ No _____

7. Are these services satisfactory?

For telephone _____ Electricity _____

For post _____

List complaints _____

For consignors of Road Freight Transport Agents part I part II

PART II CONSIGNING ROAD FREIGHT TRANSPORT.

8. Where are customers principally located that deal with office and request road freight transport?

9. For these customers what proportion of the business:

- a) Telephone %
- b) Post %
- c) Personal Callers %
- d) Telex/telegram %

10. Give the three most important routes for which goods are consigned from this office together with the expected time a customer would have to wait between placing on order for a truck and the good arriving at their destinations waiting time and journey time.

	<u>From</u>	<u>To</u>	<u>Journey time</u>	
i)	-----	-----	hours	day
ii)	-----	-----	hours	day
iii)	-----	-----	hours	day

11. What are the main types of goods consigned by road ?

12. For road transport what is the approximate breakdown of consignment size, please give percentage of consignments that fill into the following categories.

More than 20 tons (20 truck)	12 - 30 tons	7 - 12 tons (1 Bedford)	1 - 7 tons (Pastload)	Under 1 ton (Smalls)
-----%	-----%	-----%	-----%	-----%

- 13. On one age how long does it take you to find a truck for a customer who has a full load to transport? _____
- 14. What is the maximum time a customer may have to wait for you to find a truck? _____
- 15. What type of loads on destinations was the most difficulty in placing a load? _____
Why _____

For rail consigners owner Part III
Part III CONSIGNING RAIL FREIGHT TRANSPORT

- 16. Where are customers principally located that deal with this office and request rail transport? _____

- 17. For those customers what proportion of business comes via.
 - a) Telephone %
 - b) Post %
 - c) Personal Callers %
 - d) Telex/telegram %

18. Give the three most important routes destinations for goods consigned by rail that are dealt with by this office. Also give the average expected time a customer would have to wait between placing an order for a wagon and the goods arriving at their destinations?

<u>From</u>	<u>To</u>	Total average time between customers order and goods arrival by rail _____
_____	_____	_____
_____	_____	_____
_____	_____	_____

19. What is the maximum time a customers may have to wait for his goods to be delivered by rail? _____.

20. What type of loads a destinations comes the most difficulty in placing a load by rail? _____
Why _____

21. What are the maing types of goods consigned by rail?

22. For rail transport what is the approximate breakdown of consignments size. Please give the percentage of consignment that fit the following categories.

More than 20 tons	12 - 20 tons	7 - 12 tons	1 - 7 tons	Under 1 ton
-----%	-----%	-----%	-----%	-----%

GENERAL

23. i) Does the agency see any long have any long term contracts to supply transport? Yes_____No_____

ii) What proportion of the consigning business is carried out under long term contract?

iii) What type of firms are the long term contracts

24. Does the agency see any long term difficulties arriving from:-

a) The introduction of longer vehicles.

b) The large scheme introduction containorisation with Pakistan_____

25. Are there any other long term developments in the freight transport industry that the agents would like to comment on?_____

26. Other countries have introduced a centralised vehicle booking scheme run via a computer which could match trucks wishing to go to a certain destination with available loads. The agencies contract the computer office via the telephone with loads they have to transport and information on trucks wishing to go to particular directions.

i) Do they think there is a scope for such a scheme in Pakistan.

ii) Would they like to see it introduced?

iii) Would they be withing to participate with the scheme if it were introduced?

iv) Do they see any sever drawbacks to such a scheme?

FORM Freight Agents

1 10 20 30 40 50 60 70 80

FREIGHT AGENTS QUESTIONNAIRE

Questionnaire No. _____ Interviewer _____ Location Code _____

Location _____ Agency Name _____

Ownership Type _____ No of Branches _____ Main Location Code _____

Breakdown of consigning business: By road ___% By NLC ___% By Rail ___%
By air ___% By Sea ___%

Running Own vehicles: Type _____ Nos. _____
Type (2) _____ Nos. _____
Type (3) _____ Nos. _____

Warehouse? _____ Capacity _____ in Bedford Truck Loads.

Provides Hire Purchase for Trucks ___ Buys/Sells Trucks ___ Import/Export ___

Import Clearing Agent _____ Wholesaler/Retailer _____ Other Business _____

Working Telephone _____ Satisfactory? _____ Electricity _____ OK? _____

Postal Delivery _____ Satisfactory? _____

REMAINDER OF QUESTIONNAIRE RELATES TO _____

Location of customers (code) _____

2nd location _____

3rd location _____

Proportion of business; By telephone ___% By post ___%
By personal callers ___% By Telex/Telegram ___%

Does Agent offer a regular (daily) service to certain destinations? _____

Main Routes:

(1st) From ___ to ___ Journey Time ___ Hrs Total time ___ Hrs
(2nd) From ___ to ___ Journey Time ___ Hrs Total time ___ Hrs
(3rd) From ___ to ___ Journey Time ___ Hrs Total time ___ Hrs

FIELD DESCRIPTIONS (Continued)

Goods Consigned (Code) ___ Main Type _____

(2nd) Goods (Code) _____

Breakdown Of Consignment Size

20 tons ___% 12-20 tons ___% 7-12 tons ___% 1-7 tons ___% 1 ton ___%

Length of time to find a truck? ___ Hrs Max Time To Wait ___ Hrs

Difficult loads to place (Code) _____

Difficult Destinations/Loads (Text) _____

Reasons For Difficulties _____

2nd Difficulty _____

3rd Difficulty _____

Any long term contracts? ___ Proportion of business on such contracts ___%

Type of firms on long term contracts (give Commodity Code) _____

Any difficulty with long vehicles? _____

2nd Difficulty _____

3rd Difficulty _____

Comments on containerisation _____

Comments on long term developments _____

Views on centralised vehicle booking scheme.

Is there scope for scheme in Pakistan? _____

Should it be introduced? ___ Would agent participate? ___

Any severe drawbacks? _____

1 10 20 30 40 50 60 70 80

FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record size	offset
1.	Questionnaire No.	Number	3	Yes	Yes	Yes	No	No	2	13
	Number Type: Integer									
2.	Interviewer	Choice	6	No	No	No	No	No	1	15
	Choice field type name:									
	Choice 1: Shahid									
	Choice 2: Bajwa									
3.	Location Code	Number	3	No	No	No	No	No	2	16
	Number Type: Integer									
4.	Location	Text	25	No	No	No	Yes	No	25	18
	Field calculation formula: Lookup District District									
5.	Agency Name	Text	34	No	No	No	No	No	34	43
6.	Ownership Type	Choice	19	No	No	No	No	No	1	77
	Choice field type name:									
	Choice 1: Single Owner									
	Choice 2: Partnership									
	Choice 3: Limited Company									
	Choice 4: Public Sector Corp.									
7.	No of Branches	Number	3	No	No	No	No	No	2	78
	Number Type: Integer									
8.	Main Location Code	Number	3	No	No	No	No	No	2	80
	Number Type: Integer									
9.	By road(%)	Number	3	No	No	No	No	No	2	82
	Number Type: Integer									
10.	By NLC (%)	Number	3	No	No	No	No	No	2	84
	Number Type: Integer									
11.	By Rail (%)	Number	3	No	No	No	No	No	2	86
	Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

12. By air (%)	Number	3	No	No	No	No	No	2	88
Number Type: Integer									
13. By Sea (%)	Number	3	No	No	No	No	No	2	90
Number Type: Integer									
14. Own Vehicles, Type	Choice	15	No	No	No	No	No	1	92
Choice field type name:									
Choice 1: Bedford									
Choice 2: Hino									
Choice 3: Isuzu (ridgid)									
Choice 4: Nissan (ridgid)									
Choice 5: Tractor Trailer									
Choice 6: Mazda									
15. Nos.	Number	3	No	No	No	No	No	2	93
Number Type: Integer									
16. Type(2)	Choice	15	No	No	No	No	No	1	95
Choice field type name:									
Choice 1: Bedford									
Choice 2: Hino									
Choice 3: Isuzu (Ridgid)									
Choice 4: Nissan (Ridgid)									
Choice 5: Tractor Trailer									
Choice 6: Mazda									
Choice 7: Other									
17. Nos. (2)	Number	3	No	No	No	No	No	2	96
Number Type: Integer									
18. Type(3)	Choice	15	No	No	No	No	No	1	98
Choice field type name:									
Choice 1: Bedford									
Choice 2: Hino									
Choice 3: Isuzu (Ridgid)									
Choice 4: Nissan (Ridgid)									
Choice 5: Tractor Trailer									
Choice 6: Mazda									
Choice 7: Other									
19. Nos. (3)	Number	3	No	No	No	No	No	2	99
Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

20. Warehouse	Choice	17	No	No	No	No	No	1	101
Choice field type name:									
Choice 1: None									
Choice 2: Yes-Covered									
Choice 3: Storage on Street									
21. Capacity	Number	3	No	No	No	No	No	2	102
Number Type: Integer									
22. Provides H P	Choice	3	No	No	No	No	No	1	104
Choice field type name:									
Choice 1: no									
Choice 2: yes									
23. Buy/Selles trucks	Choice	3	No	No	No	No	No	1	105
Choice field type name:									
Choice 1: no									
Choice 2: yes									
24. Import/Export	Choice	3	No	No	No	No	No	1	106
Choice field type name:									
Choice 1: no									
Choice 2: yes									
25. Import Clearing	Choice	3	No	No	No	No	No	1	107
Choice field type name:									
Choice 1: no									
Choice 2: yes									
26. Wholesaler/Retailer	Choice	3	No	No	No	No	No	1	108
Choice field type name:									
Chocie 1: no									
Choice 2: yes									
27. Other business	Choice	3	No	No	No	No	No	1	109
Choice field type name:									
Choice 1: no									
Choice 2: yes									
28. Working telephone	Choice	3	No	No	No	No	No	1	110
Choice field type name:									
Choice 1: no									
Choice 2: yes									

FIELD DESCRIPTIONS (Continued)

29. Satisfactory (T)	Choice	3	No	No	No	No	No	1	111
Choice field type name:									
Choice 1: no									
Choice 2: yes									
30. Electricity	Choice	3	No	No	No	No	No	1	112
Choice field type name:									
Choice 1: no									
Choice 2: yes									
31. OK (Electricity)	Choice	3	No	No	No	No	No	1	113
Choice field type name:									
Choice 1: no									
Choice 2: yes									
32. Postal delivery	Choice	3	No	No	No	No	No	1	114
Choice field type name:									
Choice 1: no									
Choice 2: yes									
33. Satisfactory (P)	Choice	3	No	No	No	No	No	1	115
Choice field type name:									
Choice 1: no									
Choice 2: yes									
34. REMAINDER/QUESTION	Choice	4	No	No	No	No	No	1	116
Choice field type name:									
Choice 1: ROAD									
Choice 2: RAIL									
Choice 3: NLC									
35. Location of customer	Number	3	No	No	No	No	No	2	117
Number type: Integer									
36. 2nd Location	Number	3	No	No	No	No	No	2	119
Number type: Integer									
37. 3rd Location	Number	3	No	No	No	No	No	2	121
Number type: Integer									
38. By telephone	Number	3	No	No	No	No	No	2	123
Number type: Integer									

FIELD DESCRIPTIONS (Continued)

39. By post	Number	3	No	No	No	No	No	2	125
Number type: Integer									
40. By personal callers	Number	3	No	No	No	No	No	2	127
Number Type: Integer									
41. By telex/telegram	Number	3	No	No	No	No	No	2	129
Number Type: Integer									
42. Regular service	Choice	3	No	No	No	No	No	1	131
Choice field type name:									
Choice 1: no									
Choice 2: yes									
43. Journey time from(1)	Number	3	No	No	No	No	No	2	132
Number type: Integer									
44. to (1)	Number	3	No	No	No	No	No	2	134
Number type: Integer									
45. Time	Number	3	No	No	No	No	No	2	136
Number type: Integer									
46. Total time (1)	Number	3	No	No	No	No	No	2	138
Number type: Integer									
47. From (2)	Number	3	No	No	No	No	No	2	140
Number type: Integer									
48. to (2)	Number	3	No	No	No	No	No	2	142
Number type: Integer									
49. Time (2)	Number	3	No	No	No	No	No	2	144
Number type: Integer									
50. Total time (2)	Number	3	No	No	No	No	No	2	146
Number type: Integer									
51. From (3)	Number	3	No	No	No	No	No	2	148
Number type: Integer									
52. to (3)	Number	3	No	No	No	No	No	2	150
Number type: Integer									

FIELD DESCRIPTIONS (Continued)

53. Time (3)	Number	3	No	No	No	No	No	2	152
Number type: Integer									
54. Total time (3)	Number	3	No	No	No	No	No	2	154
Number type: Integer									
55. Main type of goods	Text	3	No	No	No	No	No	3	156
56. Main type	Text	25	No	No	No	Yes	No	25	159
Field calculation formula: lookup Commodity type									
57. (2nd) goods (Code)	Text	3	No	No	No	No	No	3	184
58. 20 tons	Number	3	No	No	No	No	No	2	187
Number type: Integer									
59. 12-20 tons	Number	3	No	No	No	No	No	2	189
Number type: Integer									
60. 7-12 tons	Number	3	No	No	No	No	No	2	191
Number type: Integer									
61. 1-7 tons	Number	3	No	No	No	No	No	2	193
Number type: Integer									
62. 1 ton	Number	3	No	No	No	No	No	2	195
Number type: Integer									
63. Length of time	Number	6	No	No	No	No	No	4	197
Number type: fixed point									
Digits to left of decimal=3									
64. Max time wait	Number	3	No	No	No	No	No	2	201
Number type: Integer									
65. Difficult loads	Text	3	No	No	No	No	No	3	203
66. Diff Dest/Loads	Text	30	No	No	No	No	No	30	206
67. Reasons difficulty	Choice	48	No	No	No	No	No	1	236

Choice field type name:

Choice 1: Provincial Police Discrimination (General)

Choice 2: Robbers (In Sind)

Choice 3: Rough roads

Choice 4: No Return Loads (NWFP?)

Choice 5: No Return Loads out of season

FIELD DESCRIPTIONS (Continued)

- Choice 6: Out of size loads
- Choice 7: Highly inflammable/dangerous chemicals
- Choice 8: Perishable goods
- Choice 9: Illegal Consignment
- Choice 10: Heavy dense loads
- Choice 11: Lack of Permits (for AK + N Areas)
- Choice 12: Lack of intimacy with police on particular route
- Choice 13: Others

68. Difficulty (2nd) Choice 48 No No No No No 1 237

Choice field type name:

- Choice 1: Provincial Police descrimination (general)
- Choice 2: Robbers (in Sind)
- Choice 3: Rough roads
- Choice 4: No return loads (NWFP?)
- Choice 5: No return loads out of season
- Choice 6: Out of size loads
- Choice 7: Highly inflammable/dangerous chemical
- Choice 8: Perishable goods
- Choice 9: Illegal Consignment
- Choice 10: Heavy dense loads
- Choice 11: Lack of permits (for AK & N Areas)
- Choice 12: Lack of intimacy with police particular route
- Choice 13: Others

69. Difficulty (3rd) Choice 48 No No No No No 1 238

Choice field type name:

- Choice 1: Provincial Police descrimination (general)
- Choice 2: Robbers (in Sind)
- Choice 3: Rough roads
- Choice 4: No return loads (NWFP?)
- Choice 5: No return loads of of season
- Choice 6: Out of size loads
- Choice 7: highly inflammable/dangerous chemical
- Choice 8: Perishable goods
- Choice 9: Illegal Consignment
- Choice 10: Heavy dense loads
- Choice 11: Lack of permits (for AK & N Aeas)
- Choice 12: Lack of intimacy with police on particular route
- Choice 13: Others

70. Any long term contra Choice 3 No No No No No 1 239

Choice field type name:

- Choice 1: no
- Choice 2: yes

FIELD DESCRIPTIONS (Continued)

71.	Proportion of busine Number	3	No	No	No	No	No	2	240
	Number Type: Integer								
72.	Type of firms on lon	Text	3	No	No	No	No	3	242
73.	Long vehicle	Choice	32	No	No	No	No	1	245
	Choice field type name:								
	Choice 1: no difficulty								
	Choice 2: good loads not available								
	Choice 3: narrow streets difficult to move								
	Choice 4: gradient and curvature problems								
	Choice 5: destroys market for Bedfords								
	Choice 6: cannot always go door to door								
	Choice 7: larg trucks uneconomic								
	Choice 8: larg trucks destroy roads								
	Choice 9: weigh bridges not available								
	Choice 10: others problems								
74.	2nd difficulty	Choice	33	No	No	No	No	1	246
	Choice field type name:								
	Choice 1: Not difficulty								
	Choice 2: Bulk loads not available								
	Choice 3: Narrow streets cannot move								
	Choice 4: Difficult gradients and curvature								
	Choice 5: Destorys market for Bedford								
	Choice 6: Cannot always go door to door								
	Choice 7: Large trucks uneconomic								
	Choice 8: Large trucks destroy roads								
	Choice 9: Weigh bridges not available								
	Choice 10: Others problems								
75.	3rd difficulty	Choice	35	No	No	No	No	1	247
	Choice field type name:								
	Choice 1: No difficulty								
	Choice 2: Bulk loads not availble								
	Choice 3: Difficult to move in narrow streets								
	Choice 4: Gradient and curveture problems								
	Choice 5: Destorys market for Bedford								
	Choice 6: Door to door service not avaiable								
	Choice 7: Large trucks uneconomical								
	Choice 8: Large trucks destroy roads								
	Choice 9: Weigh bridges not available								
	Choice 10: Others problems								

FIELD DESCRIPTIONS (Continued)

76.	Containerisation	Text	125	No	No	No	No	No	125	248
77.	Developments	Text	120	No	No	No	No	No	120	373
78.	Is there scope	Choice	3	No	No	No	No	No	1	493
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
79.	Should it be introduce	Choice	3	No	No	No	No	No	1	494
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
80.	Would agent particip	Choice	3	No	No	No	No	No	1	495
	Choice field type name:									
	Choice 1: no									
	Choice 2: yes									
81.	Any severe drawbacks	Text	50	No	No	No	No	No	50	496

Record size 546

Memory required for form: Text 2376, Fields 4439, Total 6815 bytes.

NATIONAL TRANSPORT RESEARCH CENTRE
TRANSPORT & ROAD RESEARCH LABORATORY
SURVEY OF FREIGHT CONSIGNORS

Interviewer:

1. Company name:
2. Main locations:
3. Type of business undertaken:
4. Type of organisation:
5. Does company choose type of transport used to bring major inputs/raw materials? Yes/No
 - i) What are the prime considerations looked for in transporting inputs/raw materials to the company?

6. Does company choose the type of transport used to distribute the finished product? Yes/No
 - i) What are the prime considerations looked for in transporting the finished product?

7. Does the company own any transport of its own?
Details of transport owned:

Vehicle type (with any special modifications)	Nos.
-----	-----
-----	-----
-----	-----
8. What is the prime use of the transport owned by the company

9. Does the company have access to a rail siding at its main locations?
10. If the company owns no transport of its own why not? Please indicate the advantages and disadvantages of the company having its own transport. Are there any major cost, management, financial or service factor which influence the decision?

11. Does the company have any long term agreements with transporters and agents which supply transport? What are the advantages and disadvantages of such agreements? How do they operate in the company's favour?

12. A growing proportion of Pakistan's transport fleet are made up of larger vehicles (for example like the Nissan & Isuzu tractor and trailer units). There are plans that containers will be used much more in Pakistan with many containers being transported by container trains. How will such developments affect the operations of the company? Can the company accomodate the larger vehicles on its premises, are its warehouse adequate? Will adjusting to the larger consignment size (which are needed to take advantage of the economics of scale) pose any problems?

DETAILS OF PRATICULAR CONSIGNMENTS

1. Type of goods-----
2. Perishable/Non perishable-----
3. How long will average stock levels of this commodity last?_____
4. Typical consignment size?_____
5. Example of origin_____ Destination_____

- 7
6. Chosen mode _____
 7. Major reason for the choice _____

 8. Other reasons? _____
 9. Expected tariff Rs _____ Per _____ (Unit) by road
 10. Expected tariff Rs _____ Per _____ (Unit) by rail
Extra local transport costs from railway Rs _____
 11. Average total transport time (within Pakistan) from time transport requested to final delivery for :-
a) Road _____ b) Rail _____
 12. Maximum transport time (between request and final delivery) likely to be encountered (say the worst of one in twenty cases) by the different modes for :-
a) Road _____ b) Rail _____
 13. Has the alternative mode been tried for this type of goods?
- 8

Number of trucks/wagons for output ___ for ___ output type ___

No. trucks/wagons for output(2nd) ___ for ___ type ___

Proportion of freight by rail for inputs ___ % for outputs ___ %

Number of containers used ___ per month

Does firm have rail sidings at main location ___

Use and attitude towards rail siding _____

Terms on which company would own transport _____

9. Problems of having own transport _____
second problem _____
third problems _____
fourth problems _____
fifth problems _____

Difficulties of not having own transport _____

Second difficulties _____

10. Does firm have long term written agreement with agent ___

11. Relationship with agents _____

Input origin(1) ___ time1 ___ hrs Road charge1 ___ Rs per1 ___

Rail time from ___ DAYS to ___ DAYS Rail charge1 ___ Rs per1 ___

Input origin(2) ___ time2 ___ hrs Road charge2 ___ Rs per2 ___

Rail time from ___ DAYS to ___ DAYS Rail charge2 ___ Rs per2 ___

Input origin(3) ___ time3 ___ hrs Road charge3 ___ Rs per3 ___

Rail time from ___ DAYS to ___ DAYS Rail charge3 ___ Rs per3 ___

Output destination(4) ___ time4 ___ hrs Road charge4 ___ Rs per4 ___

Rail time from ___ DAYS to ___ DAYS Rail charge4 ___ Rs per4 ___

Output destination(5) ___ time5 ___ hrs Road charge5 ___ Rs per5 ___

Rail time from ___ DAYS to ___ hrs Rail charge5 ___ Rs per5 ___

Output destination(6) ___ time6 ___ hrs Road charge6 ___ Rs per6 ___

Rail time from ___ DAYS to ___ DAYS Rail charge6 ___ Rs per6 ___

Response To Computerisation _____

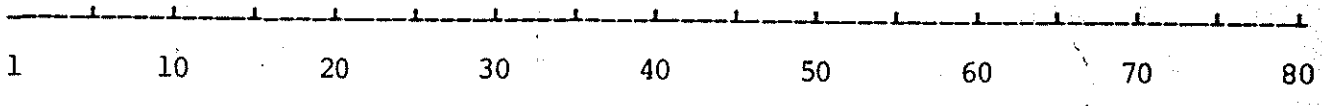
Can Tractor Trailer Unit Enter Main Premises _____

Response To Containerisation _____

Response to Larger Trucks _____

Response To Railway _____
How long will average stock level last from ___ days to ___ days

General Comments _____



FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record Size	offset
1.	Questionnaire No. Number Type: Integer	Number	3	Yes	Yes	Yes	No	No	2	17
2.	Interviewer Choice field type name: Choice 1: Shahid Choice 2: Bajwa	Choice	6	Yes	No	No	No	No	1	19
3.	Company name	Text	30	No	No	No	No	No	30	20
4.	Location Code Number Type: Integer	Number	3	No	No	No	No	No	2	50
5.	Location Field calculation formula: lookup District District	Text	25	No	No	No	Yes	No	25	52
6.	Type of business Choice field type name: Choice 1: Agro Mechanics Choice 2: Ind Mechanics Choice 3: Iron/Steel Choice 4: Agri Products Choice 5: Minerals Choice 6: Animal products Choice 7: Food/Feed Choice 8: Fertiliser Choice 9: Gen raw materials Choice 10: Cement Choice 11: Veg. Oil/Ghee Choice 12: Petroleum products Choice 13: Small manufactures Choice 14: Textile Choice 15: Others	Choice	18	No	No	No	No	No	1	77
7.	Descriptions	Text	26	No	No	No	No	No	26	78
8.	Inputs responsibility Choice field type name: Choice 1: no Choice 2: yes	Choice	3	No	No	No	No	No	1	104

FIELD DESCRIPTIONS (Continued)

9. a) Choice 33 No No No No No 1 105

Choice field type name:

- Choice 1: Time
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Other factors

10. b) Choice 33 No No No No No 1 106

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

11. c) Choice 33 No No No No No 1 107

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

FIELD DESCRIPTIONS (Continued)

12. d) Choice 33 No No No No No 1 108

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

13. Output responsibility Choice 3 No No No No No 1 109

Choice field type name:

- Choice 1: no
- Choice 2: yes

14. e) Choice 33 No No No No No 1 110

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

15. f) Choice 33 No No No No No 1 111

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

FIELD DESCRIPTIONS (Continued)

16. g) Choice 33 No No No No No No 1 112

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

17. h) Choice 33 No No No No No No 1 113

Choice field type name:

- Choice 1: Time factor
- Choice 2: Cheapness
- Choice 3: Secure against damage
- Choice 4: Convenient
- Choice 5: Only mode
- Choice 6: Minimum economic consignment size
- Choice 7: Reliable
- Choice 8: Appropriate for commodity
- Choice 9: Consignee's Choice
- Choice 10: Loss accountability
- Choice 11: Own fleet
- Choice 12: Others

18. Own Transport Choice 3 No No No No No No 1 114

Choice field type name:

- Choice 1: no
- Choice 2: yes

19. Bedford Number 3 No No No No No No 2 115

Number Type: Integer

20. Hino, Isuzu, Nissan Number 3 No No No No No No 2 117

Number Type: Integer

21. Mazda Number 3 No No No No No No 2 119

Number Type: Integer

22. Toyota Number 3 No No No No No No 2 121

Number Type: Integer

FIELD DESCRIPTIONS (Continued)

23. Suzuki	Number	3	No	No	No	No	No	2	123
Number Type: Integer									
24. Other	Number	3	No	No	No	No	No	2	125
Number Type: Integer									
25. Other Pickup	Number	3	No	No	No	No	No	2	127
Number Type: Integer									
26. Special Types	Choice	21	No	No	No	No	No	1	129
Choice field type name:									
Choice 1: Tankers									
Choice 2: Tractor-Trailers									
Choice 3: Special Modifications									
Choice 4: Containers									
27. i)Number	Number	3	No	No	No	No	No	2	130
Number Type: Integer									
28. Special Types(ii)	Choice	21	No	No	No	No	No	1	132
Choice field type name:									
Choice 1: Tanker									
Choice 2: Tractor-Trailer									
Choice 3: Special Modifications									
Choice 4: Container									
29. ii)Number	Number	3	No	No	No	No	No	2	133
Number Type: Integer									
30. Prime Use of own	Choice	41	No	No	No	No	No	1	135
Choice field type name:									
Choice 1: Only local use (delivery/pickup)									
Choice 2: General (inc dist) use (delivery/pickup)									
Choice 3: Only to bring inputs (local)									
Choice 4: Only to deliver outputs (local)									
Choice 5: To bring inputs (distance)									
Choice 6: To deliver outputs (distance)									
31. No of trucks(input)	Number	5	No	No	No	No	No	2	136
Number Type: Integer									
32. Per	Choice	5	No	No	No	No	No	1	138
Choice field type name:									
Choice 1: Day									
Choice 2: Week									
Choice 3: Month									

FIELD DESCRIPTIONS (Continued)

33. Type	Choice	12	No	No	No	No	No	No	1	139
Choice field type name:										
Choice 1: 10 ton truck										
Choice 2: Trailers										
Choice 3: Containers										
Choice 4: Pickups										
Choice 5: Rail wagons										
34. Trucks (2)	Number	3	No	No	No	No	No	No	2	140
Number type: Integer										
35. Per (2)	Choice	5	No	No	No	No	No	No	1	142
Choice field type name:										
Choice 1: Day										
Choice 2: Week										
Choice 3: Month										
36. Type (2)	Choice	12	No	No	No	No	No	No	1	143
Choice field type name:										
Choice 1: 10 ton truck										
Choice 2: Trailers										
Choice 3: Containers										
Choice 4: Pickups										
Choice 5: Rail wagons										
37. No. trucks (output)	Number	5	No	No	No	No	No	No	2	144
Number type: Integer										
38. for	Choice	5	No	No	No	No	No	No	1	146
Choice field type name:										
Choice 1: Day										
Choice 2: Week										
Choice 3: Month										
39. output type	Choice	11	No	No	No	No	No	No	1	147
Choice field type name:										
Choice 1: 10 ton truck										
Choice 2: Trailers										
Choice 3: Containers										
Choice 4: Pickups										
Choice 5: Rail wagons										
40. Trucks output (2)	Number	5	No	No	No	No	No	No	2	148
Number Type: Integer										

FIELD DESCRIPTIONS (Continued)

41. for (2)	Choice	5	No	No	No	No	No	1	150
Choice field type name:									
Choice 1: Day									
Choice 2: Week									
Choice 3: Month									
42. Type output (2)	Choice	12	No	No	No	No	No	1	151
Choice field type name:									
Choice 1: 10 ton truck									
Choice 2: Trailer									
Choice 3: Containers									
Choice 4: Pickup									
Choice 5: Rail wagons									
43. % by rail (inputs)	Number	3	No	No	No	No	No	2	152
Number Type: Integer									
44. % by rail (outputs)	Number	3	No	No	No	No	No	2	154
Number Type: Integer									
45. Number of containers	Number	3	No	No	No	No	No	2	156
Number Type: Integer									
46. Does firm have rail	Choice	3	No	No	No	No	No	1	158
Choice field type name:									
Choice 1: no									
Choice 2: yes									
47. Use and attitude	Choice	26	No	No	No	No	No	1	159
Choice field type name:									
Choice 1: Regular use									
Choice 2: Intermittant use									
Choice 3: No recent of immediate use									
Choice 4: No use and wish to dispose									
48. Terms	Choice	25	No	No	No	No	No	1	160
Choice field type name:									
Choice 1: Government assistance									
Choice 2: Taxation changes									
Choice 3: Improved transport system									
Choice 4: Changed police behaviour									
49. Problems own transport	Choice	28	No	No	No	No	No	1	161
Choice field type name:									
Choice 1: Management of staff/vehicles									

FIELD DESCRIPTIONS (Continued)

- Choice 2: Financial
- Choice 3: Taxation
- Choice 4: Marketing/Return loads
- Choice 5: Economically not feasible
- Choice 6: Not needed
- Choice 7: Theft by own staff
- Choice 8: Breakage by own staff
- Choice 9: Fluctuations in demand
- Choice 10: Other problems

50. Other transport problems Choice 28 No No No No No 1 162

Choice field type name:

- Choice 1: Management of staff/vehicles
- Choice 2: Financial
- Choice 3: Taxation
- Choice 4: Marketing/Return loads
- Choice 5: Economically not feasible
- Choice 6: Not needed
- Choice 7: Theft by own staff
- Choice 8: Breakage by own staff
- Choice 9: Fluctuations in demand
- Choice 10: Other problems

51. Third problems Choice 28 No No No No No 1 163

Choice field type name:

- Choice 1: Management of staff/vehicles
- Choice 2: Financial
- Choice 3: Taxation
- Choice 4: Marketing/Return loads
- Choice 5: Economically not feasible
- Choice 6: Not needed
- Choice 7: Theft by own staff
- Choice 8: Breakage by own staff
- Choice 9: Fluctuations in demand
- Choice 10: Other problems

52. Fourth problems Choice 28 No No No No No 1 164

Choice field type name:

- Choice 1: Management of staff/vehicles
- Choice 2: Financial
- Choice 3: Taxation
- Choice 4: Marketing/Return loads
- Choice 5: Economically not feasible
- Choice 6: Not needed
- Choice 7: Theft by own staff
- Choice 8: Breakage by own staff
- Choice 9: Fluctuations in demand
- Choice 10: Other reasons

FIELD DESCRIPTIONS (Continued)

53. fifth problem Choice 28 No No No No No 1 165
 Choice field type name:
 Choice 1: Management of vehicles/staff
 Choice 2: Financial
 Choice 3: Taxation
 Choice 4: Marketing/return loads
 Choice 5: Economically not feasible
 Choice 6: Not needed
 Choice 7: Theft by own staff
 Choice 8: Breakage by own staff
 Choice 9: Fluctuations in demand
 Choice 10: Other problems
54. Difficulties of not Choice 24 No No No No No 1 166
 Choice field type name:
 Choice 1: Delay
 Choice 2: Breakages
 Choice 3: Theft
 Choice 4: Goods not looked after
 Choice 5: Lack of customer contact
55. Second difficulties Choice 24 No No No No No 1 167
 Choice field type name:
 Choice 1: Delay
 Choice 2: Breakages
 Choice 3: Theftges
 Choice 4: Goods not looked after
 Choice 5: Lack of customer contact
56. Does firm have long Choice 3 No No No No No 1 168
 Choice field type name:
 Choice 1: no
 Choice 2: yes
57. Agent relationship Choice 45 No No No No No 1 169
 Choice field type name:
 Choice 1: No relation with any agent
 Choice 2: Informal relationship with one agent
 Choice 3: Informal relation with several agents
 Choice 4: Written contract fixed rates (one year)
 Choice 5: Written contract fixed rates more than 1 year
 Choice 6: Written contract less 1 year
 Choice 7: Written contract at market rates

FIELD DESCRIPTIONS (Continued)

58. Input origin (1)	Number	3	No	No	No	No	No	2	170
Number Type: Integer									
59. Timel	Number	3	No	No	No	No	No	2	172
Number Type: Integer									
60. Chargel	Number	6	No	No	No	No	No	4	174
Number Type: Integer									
61. Rs perl	Choice	13	No	No	No	No	No	1	178
Choice field type name:									
Choice 1: kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford truck									
Choice 5: Trailer									
Choice 6: Other truck									
Choice 7: Rail wagon									
62. Rail time froml	Number	3	No	No	No	No	No	2	179
Number Type: Integer									
63. DAYS to (1)	Number	3	No	No	No	No	No	2	181
Number Type: Integer									
64. Rail chargel	Number	6	No	No	No	No	No	4	183
Number Type: Integer									
65. R perl	Choice	13	No	No	No	No	No	1	187
Choice field type name:									
Choice 1: kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
66. Input origin (2)	Number	3	No	No	No	No	No	2	188
Number Type: Integer									
67. time2	Number	3	No	No	No	No	No	2	190
Number Type: Integer									
68. charge2	Number	6	No	No	No	No	No	4	192
Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

69. Rs per2	Choice	13	No	No	No	No	No	1	19
Choice field type name:									
Choice 1: Kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagons									
70. Rail time from (2)	Number	3	No	No	No	No	No	2	197
Number Type: Integer									
71. DAYS to (2)	Number	3	No	No	No	No	No	2	199
Number Type: Integer									
72. Rail charge2	Number	6	No	No	No	No	No	4	201
Number Type: Integer									
73. R per2	Choice	13	No	No	No	No	No	1	205
Choice field type name:									
Choice 1: Kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
74. Input origin (3)	Number	3	No	No	No	No	No	2	206
Number Type: Integer									
75. time 3	Number	3	No	No	No	No	No	2	208
Number Type: Integer									
76. Road charge3	Number	6	No	No	No	No	No	4	210
Number Type: Integer									
77. Rs per3	Choice	13	No	No	No	No	No	1	214
Choice field type name:									
Choice 1: Kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									

FIELD DESCRIPTIONS (Continued)

78. Rail time from (3)	Number	3	No	No	No	No	No	2	215
Number Type: Integer									
79. DAYS to (3)	Number	3	No	No	No	No	No	2	217
Number Type: Integer									
80. Rail charge3	Number	6	No	No	No	No	No	4	219
Number Type: Integer									
81. R per3	Choice	13	No	No	No	No	No	1	223
Choice field type name:									
Choice 1: Kg									
Choice 2: Maunds									
Choice 3: Tons									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
82. destination (4)	Number	3	No	No	No	No	No	2	224
Number Type: Integer									
83. Road time4	Number	3	No	No	No	No	No	2	226
Number Type: Integer									
84. Road charge4	Number	6	No	No	No	No	No	4	228
Number Type: Integer									
85. Rs per4	Choice	13	No	No	No	No	No	1	232
Choice field type name:									
Choice 1: Kg									
Choice 2: Maunds									
Choice 3: Tons									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
86. Rail time from (4)	Number	3	No	No	No	No	No	2	233
Number Type: Integer									
87. DAYS to (4)	Number	3	No	No	No	No	No	2	235
Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

88. DAYS Rail charge4	Number	6	No	No	No	No	No	4	237
Number Type: Integer									
89. R per4	Choice	13	No	No	No	No	No	1	241
Choice field type name:									
Choice 1: Kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
90. destination (5)	Number	3	No	No	No	No	No	2	242
Number Type: Integer									
91. time5	Number	3	No	No	No	No	No	2	244
Number Type: Integer									
92. Road charge5	Number	6	No	No	No	No	No	4	246
Number Type: Integer									
93. Rs per5	Choice	13	No	No	No	No	No	1	250
Choice field type name:									
Choice 1: Kg									
Choice 2: Maund									
Choice 3: Ton									
Choice 4: Bedford Truck									
Choice 5: Trailer									
Choice 6: Other Truck									
Choice 7: Rail wagon									
94. Rail time from (5)	Number	3	No	No	No	No	No	2	251
Number Type: Integer									
95. DAYS to (5)	Number	3	No	No	No	No	No	2	253
Number Type: Integer									
96. Rail charge5	Number	6	No	No	No	No	No	4	255
Number Type: Integer									
97. R per5	Choice	13	No	No	No	No	No	1	259
Choice field type name:									
Choice 1: Kg									

FIELD DESCRIPTIONS (Continued)

	Choice 2: Maund										
	Choice 3: Ton										
	Choice 4: Bedford Truck										
	Choice 5: Trailer										
	Choice 6: Other Truck										
	Choice 7: Rail wagon										
98.	destination (6)	Number	3	No	No	No	No	No	2	260	
	Number Type: Integer										
99.	time6	Number	3	No	No	No	No	No	2	262	
	Number Type: Integer										
100.	Road charge6	Number	6	No	No	No	No	No	4	264	
	Number Type: Integer										
101.	Rs per6	Choice	13	No	No	No	No	No	1	268	
	Choice field type name:										
	Choice 1: Kg										
	Choice 2: Maund										
	Choice 3: Ton										
	Choice 4: Bedford Truck										
	Choice 5: Trailer										
	Choice 6: Other Truck										
	Choice 7: Rail wagon										
102.	Rail time from (6)	Number	3	No	No	No	No	No	2	269	
	Number Type: Integer										
103.	DAYS to (6)	Number	3	No	No	No	No	No	2	271	
	Number Type: Integer										
104.	Rail charge6	Number	6	No	No	No	No	No	4	273	
	Number Type: Integer										
105.	R per6	Choice	13	No	No	No	No	No	1	277	
	Choice field type name:										
	Choice 1: Kg										
	Choice 2: Maund										
	Choice 3: Ton										
	Choice 4: Bedford Truck										
	Choice 5: Trailer										
	Choice 6: Other Truck										
	Choice 7: Rail wagon										

FIELD DESCRIPTIONS (Continued)

106. Response To Computer Choice 17 No No No No No 1 278
 Choice field type name:
 Choice 1: very much welcome
 Choice 2: cautious welcome
 Choice 3: no opinion
 Choice 4: rejected
107. Can Tractor Trailer Choice 3 No No No No No 1 279
 Choice field type name:
 Choice 1: no
 Choice 2: yes
108. Containerisation Choice 35 No No No No No 1 280
 Choice field type Name:
 Choice 1: No need
 Choice 2: We need it
 Choice 3: Weighbridge problem
 Choice 4: Roads not suitable
 Choice 5: Problems of roads in Northern Areas
 Choice 6: Small warehouse/factory space
 Choice 7: Small streets
 Choice 8: No views
 Choice 9: Other views
109. Larger Trucks Choice 55 No No No No No 1 281
 Choice field type name:
 Choice 1: We need them
 Choice 2: Weighbridge problems
 Choice 3: Roads are not safe
 Choice 4: Roads in Northern Areas are difficult for larger trucks
 Choice 5: Small factory space
 Choice 6: Large loads not available
 Choice 7: Customers prefer standard 10 ton load
 Choice 8: No views
 Choice 9: Other views
110. Response To Railway Choice 55 No No No No No 1 282
 Choice field type name:
 Choice 1: To many delays
 Choice 2: Staff not cooperative
 Choice 3: No claims for breakage/loss
 Choice 4: Minimum of 20 tons required to book wagon
 Choice 5: Extra transport charges from railway station to factory
 Choice 6: Railway staff steal goods
 Choice 7: Loose wagons for long periods
 Choice 8: Other problems

FIELD DESCRIPTIONS (Continued)

111. average stock	Number	3	No	No	No	No	No	2	283
Number Type: Integer									
112. days to	Number	3	No	No	No	No	No	2	285
Number Type: Integer									
113. General Comments	Text	143	No	No	No	No	No	143	287

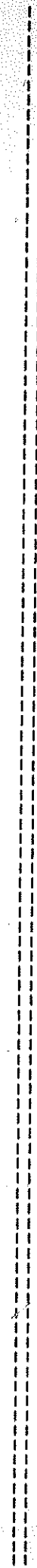
Record size 430

Memory required for form: Text 2830, Fields 8358, Total 11188 bytes.

List of Drivers Cost & Revenue Diaries With Key Dates

Diary No.	Registr- ation No.	Make/Type	Year 19	Dates 1.		Dates 2.		Dates 3.		Dates 4.	
				From	To	From	To	From	To	From	To
1.	813	ADA Bedford	73	20.05.83	31.05.84						
2.	7699	RIH Bedford	79	02.04.83	10.07.83	06.10.83	07.10.83	20.11.83	27.11.83	28.09.84	17.10.84
3.	6897	RIK Bedford	79	18.04.81	23.10.81	25.10.81	08.11.81	22.05.83	25.11.83		
4.	7123	RIK Bedford	79	13.11.83	28.02.84						
5.	2576	GLT Bedford	79	08.07.85	21.08.85						
6.	3688	GLT Bedford	84	22.08.84	06.11.84	06.11.84	07.03.85	07.03.85	25.07.85		
7.	7288	RIK Bedford	82	23.10.83	08.08.85						
8.	506	ADA Bedford	79	01.09.79	30.09.80						
9.	225	RIK Bedford	82	24.11.84	17.06.85						
10.	2597	RIK Bedford	82	21.09.83	27.03.84						
11.	3397	GLT Bedford	82	22.06.84	29.07.85						
12.	3597	ADA Bedford	82	08.02.82	30.06.82						
13.	497	RIM Bedford	82	20.05.84	19.06.85						
14.	421	RIM Bedford		23.06.85	27.10.85						
15.	4043	GLT Bedford	79	17.02.85	30.10.85						
16.	3200	GLT Isuzu (3 axle)	84	19.05.84	02.03.85						
18.	8384	KS Bedford	84	25.04.85	15.11.85						
19.	1825	DNB Bedford	76	23.06.85	26.08.85						
20.	2810	GLT Bedford	83	04.01.85	20.09.85						
21.	4194	RIM Bedford	78	30.04.85	09.06.85	11.06.85	04.08.85	05.08.85	18.10.85	19.10.85	05.01.86
22.	2596	RIH Bedford		06.06.80	16.08.80						
23.	2487	GLT Bedford	81	25.12.82	29.03.83	01.03.84	31.03.84	01.09.84	03.09.84	09.10.84	02.12.84
24.	7887	RIG Bedford	80	21.09.80	02.12.80						
25.	5321	RID Unknown	76	24.11.77	21.05.78						
26.	5201	BU Bedford		08.01.81	31.05.81	03.07.81	31.07.81				
27.	1662	GLT Bedford	79	06.11.79	31.07.80	01.08.80	31.07.81				
28.	1699	GLT Bedford	74	01.10.79	26.08.80						
30.	3875	ADA Unknown	82	22.08.82	26.03.83						
31.	3479	GLT Bedford	84	01.10.84	24.03.85	12.01.86	01.05.86				
33.	8733	AD Unknown		11.09.78	02.03.79						
36.	4388	RID Bedford		01.07.78	05.06.78						
37.	8596	RIG Bedford	73	20.04.78	18.06.79						
38.	/084	PRC Bedford		24.02.79	30.10.79	04.11.79	30.06.80	17.07.80	30.12.80	01.08.81	21.09.81
39.	812-002	K Bedford	81	13.10.81	23.03.82	24.03.82	02.07.82	03.07.82	20.02.83		

39.	812-022 K Bedford	81	13.10.81	23.03.82	24.03.82	02.07.82	03.07.82	20.02.83
42.	2387 GLT Nissan (3 axle)	83	12.03.84	03.08.84				
43.	3497 GLT Bedford	84	09.10.84	24.03.85				
44.	8596 RIC Bedford	73	07.01.74	15.06.74	02.01.75	01.12.75	02.01.76	05.09.79 01.12.79
46.	9767 RID Bedford	76	16.02.77	26.07.77				
47.	1838 LS Tractor Trailer	03	11.83	29.07.85				
48.	3405 GLT Bedford	77	02.06.80	28.07.80	02.03.85	24.02.85		
50.	2039 AD Bedford	78	26.02.80	09.01.81				
52.	3039 GLT Bedford	01	10.79	22.02.80				
53.	2330 GLT Isuzu (2 axle)	84	14.02.86	30.04.86				
54.	2591 GLT Isuzu (2 axle)	82	02.01.83	10.03.84				
55.	3907 GLT Bedford	23	03.86	13.05.86				
57.	7681 RIG Unknown	14	01.82	07.10.82				
59.	4687 GLT Hino	85	17.10.85	12.03.86				
60.	3776 ADA Bedford	82	15.12.82	30.04.83				
61.	7145 GLT Isuzu (2 axle)	81	09.04.82	20.09.82				
62.	7145 GLT Isuzu (2 axle)	81	01.05.83	15.11.83				
63.	(DIARY 63) Bedford	76	21.02.85	31.12.85				
64.	993 RID Unknown	81	05.09.83	14.11.83	01.01.84	06.02.84		
65.	9769 RID Unknown	76	07.03.78	31.01.79				
66.	2841 HA Bedford	75	01.07.75	20.11.81				
67.	2322 ADA Unknown	29	11.81	07.11.82	15.12.82	31.03.83		
68.	2463 RID Bedford	74	03.10.78	30.06.79				



FORM MONTHLY

1 10 20 30 40 50 60 70 80

Truck Driver's Monthly Diary Record

Diary No. ___ Month ___ Yr 19 ___ Month No ___ Req. No ___

Date from ___ Date to ___ Days ___ Make ___ Model Year ___

Revenue Trips ___ Fuel ___ Rs/lt Bedford Chassis ___ (Price/100,000)

Kms ___ Tyre Price ___ (/1000) Pr.Index ___ (1=Dec 1985)

Diesel ___ Load labour ___ Oil/Grease ___ Octroi ___ Police ___

Agency Comm ___ Tyre Repair ___ Other Repairs ___ Wages & Food ___

Taxes ___ Total expenses ___ Installments ___ Revenue ___

Gross profit ___ Derived Expenses ___

Fuel used ___ lts Lts/day ___ Ltrs/trip ___ Rev/Fuel ___ Rev/trip ___

Rev/Index ___ Profit/Index ___ Rev/Index/day ___ Profit/Index/day ___

Rev/Index/ltr ___ Profit/Index/ltr ___ Profit/Chassis/day ___

Installments/Chassis ___ All Repairs/Index/ltr ___

Other Repairs/Chassis/ltr ___ Wages/Index/day ___ Police/Index/day ___

Load Labour/Index/trip ___ Octroi/Index/trip ___ Agency/Index/trip ___

T Repair/T Price/ltr ___ Taxes/Index ___

Of total revenue:

% Diesel ___ % Load labour ___ % Oil & Grease ___ % Octroi ___

% Police ___ % Agency comm ___ % Tyre Repair ___ % Other Repair ___

% Wages & Food ___ % Installments ___ % Tot expenses ___ % Profit ___

% Taxes ___ End? ___

1 10 20 30 40 50 60 70 80

FIELD DESCRIPTIONS

No.	Name	Type	Long	Regd	In- dex	Uni- que	Der- ived	Range Chk	Record size	offset
1.	Diary No	Number	2	Yes	Yes	Yes	No	No	1	11
	Number Type: Integer									
2.	Month	Number	2	No	No	No	No	No	1	12
	Number Type: Integer									
3.	Yr	Number	2	No	No	No	No	No	1	13
	Number Type: Integer									
4.	Month No	Number	3	No	Yes	Yes	Yes	No	2	14
	Number Type: Integer									
	Field calculation formula: ((Yr - 76) * 12) + Month									
5.	Reg. No.	Text	12	No	No	No	Yes	No	12	16
	Field calculation formula: lookup "Diary Trucks" "Registration No"									
6.	Date from	Date	8	No	No	No	No	No	6	28
7.	Date to	Date	8	No	No	No	No	No	6	34
8.	Days	Number	2	No	No	No	No	No	1	40
	Number Type: Integer									
9.	Make	Choice	15	No	No	No	Yes	No	1	41
	Choice field type name:									
	Choice 1: Bedford									
	Choice 2: Hino									
	Choice 3: Isuzu (2 axle)									
	Choice 4: Isuzu (3 axle)									
	Choice 5: Nissan (2 axle)									
	Choice 6: Nissan (3 axle)									
	Choice 7: Tractor Trailer									
	Choice 8: Unknown									
	Field calculation formula: lookup "Diary Trucks" Make/Type									
10.	Model year	Number	2	No	No	No	Yes	No	1	42
	Number Type: Integer									
	Field calculation formula: lookup "Diary Trucks" "Year 19"									
11.	Revenue Trips	Number	3	No	No	No	No	No	2	43
	Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

12. Fuel	Number	4	No	No	No	Yes	No	4	45
Number Type: Fixed point Digits to left of decimal = 1 field calculation formula: lookup "Price Index" Fuel									
13. Chassis Rs	Number	7	No	No	No	Yes	No	8	49
Number Type: Fixed point Digits to left of decimal = 1 Field calculation formula: lookup "Price Index" "Bedford Chassis Rs"/100000									
14. Kms	Number	7	No	No	No	No	No	4	57
Number Type: Integer									
15. Tyre Price	Number	5	No	No	No	Yes	No	4	61
Number Type: Fixed point Digits to left of decimal = 1 Field calculation formula: lookup "Price Index" "Tyre Price"/1000									
16. Price Index1	Number	6	No	No	No	Yes	No	4	65
Number Type: Fixed point Digits to left of decimal = 1 Field calculation formula: lookup "Price Index" "Price Index"/224.0									
17. Diesel	Number	6	No	No	No	No	No	4	69
Number Type: Integer									
18. Loading labour	Number	5	No	No	No	No	No	2	73
Number Type: Integer									
19. Oil/Grease	Number	5	No	No	No	No	No	2	75
Number Type: Integer									
20. Octroi	Number	6	No	No	No	No	No	4	77
Number Type: Integer									
21. Police	Number	6	No	No	No	No	No	4	81
Number Type: Integer									
22. Agency Comm	Number	5	No	No	No	No	No	2	85
Number Type: Integer									
23. Tyre Repair	Number	6	No	No	No	No	No	4	87
Number Type: Integer									

FIELD DESCRIPTIONS (Continued)

24. Other Repairs	Number	7	No	No	No	No	No	4	91
Number Type: Integer									
25. Wages & Food	Number	6	No	No	No	No	No	4	95
Number Type: Integer									
26. Taxes	Number	6	No	No	No	No	No	4	99
Number Type: Integer									
27. Total expenses	Number	7	No	No	No	No	No	4	103
Number Type: Integer									
28. Instalments	Number	7	No	No	No	No	No	4	107
Number Type: Integer									
29. Revenue	Number	7	No	No	No	No	No	4	111
Number Type: Integer									
30. Gross profit	Number	7	No	No	No	Yes	No	4	115
Number Type: Integer									
Field calculation formula: Revenue - Total expenses									
31. Derived Expenses	Number	9	No	No	No	Yes	No	4	119
Number Type: Integer									
Field calculation formula: Diesel+Loadin labour+Oil/Grease+Octroi Police+Agency Comm+Tyre Repair+Other+Wages & Food+Taxes									
32. Fuel used	Number	6	No	No	No	Yes	No	4	123
Number Type: Floating point									
Field calculation formula: Diesel/Fuel									
33. Lts/day	Number	5	No	No	No	Yes	No	4	127
Number Type: Floating point									
Field calculation formula: Fuel used/Days									
34. Lts/trip	Number	5	No	No	No	Yes	No	4	131
Number Type: Floating point									
Field calculation formula: Fuel used/Revenue Trips									
35. Rev/Fuel	Number	5	No	No	No	Yes	No	4	135
Number Type: Floating point									
Field calculation formula: Revenue/Diesel									

FIELD DESCRIPTIONS (Continued)

36. Rev/trip	Number	5	No	No	No	Yes	No	4	139
Number Type: Floating point									
Field calculation formula: Revenue/Revenue Trips									
37. Rev/Index	Number	6	No	No	No	Yes	No	4	143
Number Type: Floating point									
Field calculation formula: Revenue/Price Index 1									
38. Profit/Index	Number	6	No	No	No	Yes	No	4	147
Number Type: Floating point									
Field calculation formula: Gross profit/Price Index 1									
39. Rev/Index/day	Number	5	No	No	No	Yes	No	4	151
Number Type: Floating point									
Field calculation formula: (Rev/Index)Days									
40. Profit/Index/day	Number	6	No	No	No	Yes	No	4	155
Number Type: Floating point									
Field calculation formula: Profit/Index/Days									
41. Rev/Index/ltr	Number	5	No	No	No	Yes	No	4	159
Number Type: Floating point									
Field calculation formula: Rev/Index/Fuel used									
42. Profit/Index/ltr	Number	5	No	No	No	Yes	No	4	163
Number Type: Floating point									
Field calculation formula: Profit/Index/Fuel used									
43. Profit/Chassis/day	Number	5	No	No	No	Yes	No	4	167
Number Type: Floating point									
Field calculation formula: (Gross profit/Chassis Rs)/Days									
44. Instalments/Chassis	Number	5	No	No	No	Yes	No	4	171
Number Type: Floating point									
Field calculation formula: Instalments/Chassis Rs									
45. All Repairs/Index/lt	Number	6	No	No	No	Yes	No	4	175
Number Type: Floating point									
Field calculation formula: ((Tyre Repair + Other Repairs)/Price Index 1)/Fuel used									

FIELD DESCRIPTIONS (Continued)

46. Repairs/Chassis/ltr	Number	6	No	No	No	Yes	No	4	179
Number Type: Floating Point									
Field calculation formula: (Other Repairs/Price Index)/Fuel used									
47. Wages/Index/day	Number	5	No	No	No	Yes	No	4	183
Number Type: Floating point									
Field calculation formula: (Wages & Food/Price Index)/days									
48. Police/Index/day	Number	5	No	No	No	Yes	No	4	187
Number Type: Floating point									
Field calculation formula: (Police/Price Index)/Days									
49. Load labour/Index/tr	Number	4	No	No	No	Yes	No	4	191
Number Type: Floating point									
Field calculation formula: (Loading labour/Price Index)/Revenue Trip									
50. Octroi/Index/trip	Number	5	No	No	No	Yes	No	4	195
Number Type: Floating point									
Field calculation formula: (Octroi/Price Index)/Revenue Trips									
51. Agency/Index/trip	Number	5	No	No	No	Yes	No	4	199
Number Type: Floating point									
Field calculation formula: (Agency Comm/Price Index)/Revenue Trips									
52. T Repair/T Price/ltr	Number	7	No	No	No	Yes	No	8	203
Number Type: Floating point									
Field calculation formula: (Tyre Repair/Tyre Price)/Fuel Used									
53. Taxes/Index	Number	5	No	No	No	Yes	No	4	211
Number Type: Floating point									
Field calculation formula: Taxes/Price Index									
54. % Diesel	Number	5	No	No	No	Yes	No	4	215
Number Type: Fixed point									
Digits to left of decimal = 1									
Field calculation formula: Diesel/(Revenue)									
55. % Load labour	Number	5	No	No	No	Yes	No	4	219
Number Type: Fixed point									
Digits to left of decimal = 1									
Field calculation formula: Loading labour/(Revenue)									

FIELD DESCRIPTIONS (Continued)

56.	% Oil & Grease	Number	5	No	No	No	Yes	No	4	223
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Oil/Grease/(Revenue)									
57.	% Octroi	Number	5	No	No	No	Yes	No	4	227
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Octroi/(Revenue)									
58.	% Police	Number	5	No	No	No	Yes	No	4	231
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Police/(Revenue)									
59.	% Agency comm	Number	5	No	No	No	Yes	No	4	235
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Agency Comm/(Revenue)									
60.	% Tyre Repair	Number	5	No	No	No	Yes	No	4	239
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Tyre Repair/(Revenue)									
61.	% Other Repair	Number	6	No	No	No	Yes	No	4	243
	Number Type: Fixed point									
	Digits to left of decimal = 2									
	Field calculation formula: Other Repairs/(Revenue)									
62.	% Wages & Food	Number	5	No	No	No	Yes	No	4	247
	Number Type: Fixed point									
	Digits to left of decimal = 1									
	Field calculation formula: Wages & Food/(Revenue)									
63.	% Instalments	Number	6	No	No	No	Yes	No	4	251
	Number Type: Fixed Point									
	Digits to left of decimal = 2									
	Field calculation formula: Instalments/(Revenue)									
64.	% Total expenses	Number	6	No	No	No	Yes	No	4	255
	Number Type: Fixed point									
	Digits to left of decimal = 2									
	Field calculation formula: Total expenses/(Revenue)									

FIELD DESCRIPTIONS (Continued)

65.	% Profit	Number	6	No	No	No	Yes	No	4	259
	Number Type: Floating point Field calculation formula: Gross profit/(Revenue)									
66.	% Taxes	Number	5	No	No	No	Yes	No	4	263
	Number Type: Fixed Point Digits to left of decimal = 1 Field calculation formula: Taxes/(Revenue)									
67.	End	Choice	3	No	No	No	No	No	1	267
	Choice field type name: Choice 1: no Choice 2: yes									

Record size 268

Memory required for form: Text 1597, Fields 4397, Total 5994 bytes.

List of Sets of Twice Monthly Tariff Data Collected From Freight Agents

Tariff Code	Vehicle Make	Type	Commodity	Origin	Destination	Start Mth	Start Year	End Mth	End Year
1.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Peshawar	1	82	7	86
2.	Nissan	Tractor Trailer	Other Grains Pulses	Karachi	Sargodha	1	82	7	86
3.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Faisalabad	1	82	7	86
4.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Quetta	1	82	7	86
5.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Rawalpindi	1	82	7	86
6.	Nissan	Tractor Trailer	Iron steel (basic)	Karachi	Haripur	1	82	7	86
7.	Nissan	Tractor Trailer	Cotton	Karachi	Lahore	1	82	7	86
8.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Lahore	1	82	7	86
9.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Turbat	1	82	7	86
10.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi	Swat (s.Sharif)	1	82	7	86
11.	Nissan	Tractor Trailer	jute	Karachi	Muzaffargarh	1	82	7	86
12.	Isuzu	Ridgid (2 axle)	Flour	Karachi	Sukkur (Rohri)	1	82	7	86
13.	Isuzu	Ridgid (2 axle)	Wheat	Karachi	Mardan	1	82	7	86
14.	Isuzu	Tractor Trailer	Cement	Karachi	Rawalpindi	1	82	7	86
15.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi	Sibi	1	82	7	86
16.	Nissan	Tractor Trailer	Iron steel (basic)	Karachi	Rawalpindi	1	82	7	86
17.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Karachi	Nawabshah	1	82	7	86
18.	Nissan	Tractor Trailer	General Merchandise	Karachi	Rawalpindi	1	82	7	86
19.	Nissan	Tractor Trailer	Wheat	Karachi	Quetta	1	82	7	86
20.	Bedford	Ridgid (2 axle)	Cement	Karachi	Multan	1	82	7	86
21.	Nissan	Tractor Trailer	Cement	Karachi	Lahore	1	82	7	86
22.	Isuzu	Ridgid (2 axle)	Wheat	Karachi	Pangjur	1	82	7	86
23.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Multan	1	82	7	86
24.	Bedford	Ridgid (2 axle)	Textile fibre	Karachi	Kohat	1	82	7	86
25.	Bedford	Ridgid (2 axle)	Iron steel (finished)	Karachi	Faisalabad	1	82	7	86
26.	Nissan	Tractor Trailer	flour	Karachi	Jacobabad	1	82	7	86
27.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi	Sialkot	1	82	7	86
28.	Nissan	Tractor Trailer	cement	Karachi	Peshawar	1	82	7	86
29.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Gujranwala	1	82	7	86
30.	Nissan	Tractor Trailer	refined sugar	Karachi	Bannu	1	82	7	86
31.	Isuzu	Ridgid (2 axle)	wheat	Karachi	Mansehra	1	82	7	86
32.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi	Quetta	1	82	7	86
33.	Nissan	Tractor Trailer	Iron steel (basic)	Karachi	Sahiwal	1	82	7	86
34.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Pangjur	1	82	7	86
35.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Karachi	Rawalpindi	1	82	7	86
36.	Bedford	Ridgid (2 axle)	Tea coffee	Karachi	Bahawalnagar	1	82	7	86
37.	Nissan	Tractor Trailer	Cement	Karachi	Peshawar	1	82	7	86
38.	Nissan	Tractor Trailer	Other food products	Karachi	Sheikhupura	1	82	7	86
39.	Isuzu	Ridgid (2 axle)	leather products	Karachi	Lahore	1	82	7	86
40.	Nissan	Tractor Trailer	Textile manufactures	Karachi	Gujranwala	1	82	7	86
41.	Bedford	Ridgid (2 axle)	refined sugar	Karachi	Pishin	1	82	7	86
42.	Mercedes	Tractor Trailer	cement	Karachi	Rawalpindi	1	82	7	86
43.	Bedford	Ridgid (2 axle)	wood fixtures paints	Karachi	Rawalpindi	1	82	7	86
44.	Bedford	Ridgid (2 axle)	General Merchandise	Karachi	Turbat	1	82	7	86
45.	Bedford	Ridgid (2 axle)	Machinery (non electrical)	Karachi	Attock	1	82	7	86
46.	Nissan	Tractor Trailer	Maize	Karachi	Faisalabad	1	82	7	86

List of Sets of Twice Monthly Tariff Data Collected From Freight Agents. (Continued)

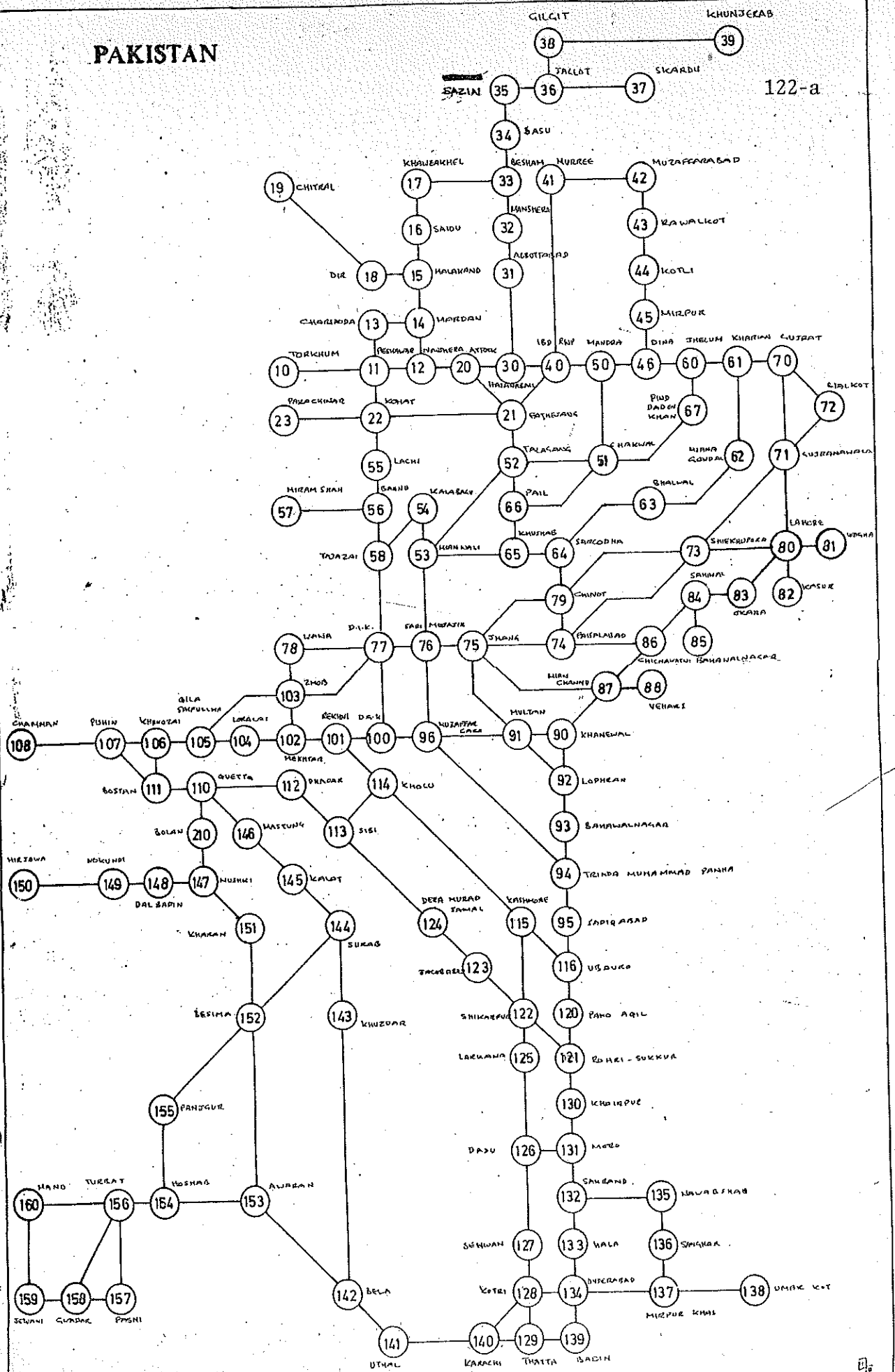
47.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi Attock	1	82	7	86
48.	Isuzu	Ridgid (2 axle)	refined sugar	Karachi Muzaffarabad	1	82	7	86
49.	Bedford	Ridgid (2 axle)	Cement	Karachi Chaghai	1	82	7	86
50.	Isuzu	Ridgid (2 axle)	General Merchandise	Karachi Turbat	1	82	12	86
51.	Bedford	Ridgid (2 axle)	General Merchandise	Karachi Turbat	1	84	12	86
52.	Hino	Ridgid (2 axle)	Cement	Karachi Turbat	1	85	12	86
53.	Hino	Ridgid (2 axle)	Paper books	Karachi Lahore	1	82	7	86
54.	Nissan	Tractor Trailer	Iron steel (basic)	Karachi Hyderabad	1	82	7	86
55.	Bedford	Ridgid (2 axle)	Soap detergent	Karachi Abbottabad	1	82	7	86
56.	Isuzu	Ridgid (2 axle)	Scrap (Iron)	Karachi Lahore	1	82	7	86
57.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Rawalpindi Kasur	1	79	12	82
58.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Rawalpindi Lahore	1	82	7	86
59.	Bedford	Ridgid (2 axle)	wood fixture paints	Abbottabad Karachi	1	83	7	86
60.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Rawalpindi Lahore	1	78	12	82
61.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Abbottabad Lahore	1	72	12	75
62.	Bedford	Ridgid (2 axle)	wood fixtures paints	Abbottabad Mardan	1	83	7	86
63.	Bedford	Ridgid (2 axle)	wood fixtures paints	Abbottabad Lahore	1	83	7	86
64.	Bedford	Ridgid (2 axle)	wood fixtures paints	Abbottabad Sargodha	1	83	7	86
65.	Bedford	Ridgid (2 axle)	wood fixtures paints	Abbottabad Jhelum	1	83	7	86
66.	Bedford	Ridgid (2 axle)	wood fixtures paints	Abbottabad Multan	1	83	7	86
67.	Bedford	Ridgid (2 axle)	Rock salt	Abbottabad Gilgit	1	82	7	86
68.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Abbottabad Lahore	1	73	12	76
69.	Bedford	Ridgid (2 axle)	Limestone lime powder	Abbottabad Gujrat	1	80	12	83
70.	Bedford	Ridgid (2 axle)	Textile manufactures	Abbottabad Karachi	1	82	7	86
71.	Bedford	Ridgid (2 axle)	Limestone lime powder	Abbottabad Gujrat	1	84	7	86
72.	Bedford	Ridgid (2 axle)	Kerosene oil	Abbottabad Rawalpindi	1	83	7	86
73.	Bedford	Ridgid (2 axle)	Kerosene oil	Abbottabad Peshawar	1	84	7	86
74.	Bedford	Ridgid (2 axle)	Limestone lime powder	Abbottabad Lahore	1	84	7	86
75.	Bedford	Ridgid (2 axle)	Textile fibre	Abbottabad Faisalabad	1	82	7	86
76.	Bedford	Ridgid (2 axle)	Textile manufactures	Abbottabad Peshawar	1	82	7	86
77.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Abbottabad Faisalabad	1	83	7	86
78.	Bedford	Ridgid (2 axle)	Cotton	Abbottabad Karachi	1	79	12	83
79.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Abbottabad Lahore	1	80	12	84
80.	Bedford	Ridgid (2 axle)	Wood fixture paints	Abbottabad Quetta	1	83	7	86
81.	Bedford	Ridgid (2 axle)	Wood fixture paints	Abbottabad Sukkur (Pohri)	1	83	7	86
82.	Bedford	Ridgid (2 axle)	Ballast gravel stone	Abbottabad Lahore	1	83	7	86
83.	Bedford	Ridgid (2 axle)	Machinery (non electrical)	Lahore Mardan	1	82	12	86
84.	Bedford	Ridgid (2 axle)	Flour	Abbottabad Gilgit	1	82	12	86
85.	Bedford	Ridgid (2 axle)	Veg(not potatoes onions)	Lahore Peshawar	1	82	12	86
86.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore Multan	1	82	12	86
87.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore Abbottabad	1	82	12	86
88.	Bedford	Ridgid (2 axle)	Other bulk goods	Lahore Karachi	1	82	12	86
89.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore Mansehra	1	82	12	86
90.	Bedford	Ridgid (2 axle)	Paper books	Lahore Gilgit	1	82	12	86
91.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore Abbottabad	1	82	12	86
92.	Bedford	Ridgid (2 axle)	Textile manufactures	Lahore Gilgit	1	82	12	86
93.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore Rawalpindi	1	82	12	86
94.	Bedford	Ridgid (2 axle)	Wood fixtures paints	Lahore Peshawar	1	82	12	86
95.	Bedford	Ridgid (2 axle)	Electrical machinery	Lahore Karachi	1	82	12	86

List of Sets of Twice Monthly Tariff Data Collected From Freight Agents. (Continued)

96.	Bedford	Ridgid (2 axle)	Soap detergent	Lahore	Quetta	1	82	12	86
97.	Bedford	Ridgid (2 axle)	Textile manufactures	Lahore	Rawalpindi	1	82	12	86
98.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore	Sukkur (Rohri)	1	82	12	86
99.	Bedford	Tractor Trailer	Iron steel (basic)	Lahore	Rawalpindi	1	82	12	86
100.	Bedford	Ridgid (2 axle)	Paper books	Lahore	Sialkot	1	82	12	86
101.	Bedford	Ridgid (2 axle)	General Merchandise	Lahore	Rawalpindi	1	82	12	86
102.	Bedford	Ridgid (2 axle)	Other food products	Lahore	Sialkot	1	82	12	86
103.	Bedford	Ridgid (2 axle)	Flour	Lahore	Rawalpindi	1	82	12	86
104.	Bedford	Ridgid (2 axle)	Paper books	Lahore	Multan	1	82	12	86
105.	Bedford	Tractor Trailer	Iron steel (basic)	Lahore	Multan	1	82	12	86
107.	Bedford	Ridgid (2 axle)	Paper books	Lahore	Peshawar	1	82	12	86
108.	Bedford	Tractor Trailer	Iron steel (basic)	Lahore	Peshawar	1	82	12	86
109.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore	Gilgit	1	82	12	86
110.	Bedford	Ridgid (2 axle)	Iron steel (basic)	Lahore	Sahiwal	1	82	12	86
111.	Bedford	Ridgid (2 axle)	Paper books	Lahore	Multan	1	82	12	86
112.	Bedford	Ridgid (2 axle)	Other food products	Lahore	Rawalpindi	1	82	12	86
113.	Mercedes	Tractor Trailer	Electrical machinery	Lahore	Karachi	1	82	7	86
114.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Karachi	1	81	12	86
115.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Peshawar	1	81	12	86
116.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Jhelum	1	81	12	86
117.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Abbottabad	1	81	12	86
118.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Multan	1	81	12	86
119.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Faisalabad	1	81	12	86
120.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Lahore	1	81	12	86
121.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Rawalpindi	1	81	12	86
122.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Jhelum	1	81	12	86
123.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Hyderabad	1	81	12	86
124.	Bedford	Ridgid (2 axle)	Coal coke	Quetta	Sukkur (Rohri)	1	81	12	86

PAKISTAN

122-a



Link and Node Data Giving Estimates of Roughness Measured by Freight Survey & Kampsax:

Link No.	1st Node	From	2nd Node	To	Length Km.	Roughness mm/Km		
						Freight Survey	Kampsax Survey	Estimated
1.	128	Kotri	140	Karachi	175			2,500
2.	134	Hyderabad	128	Kotri	16	4,614		4,800
3.	133	Hala	134	Hyderabad	56			4,600
4.	132	Sakrand	133	Hala	40			4,500
5.	131	Moro	132	Sakrand	92			4,500
6.	130	Khairpur	131	Moro	22			4,500
7.	121	Rohri Sukkur	130	Khairpur	22			4,500
8.	120	Pano Aqil	121	Rohri Sukkur	30			1,400
9.	116	Ubauro	120	Pano Aqil	78			4,800
10.	95	Sadiqabad	116	Ubauro	45			4,800
11.	94	T.M. Panha	95	Sadiqabad	120	5,958		4,500
12.	94	T.M. Panha	93	Bahawalpur	71	4,663		4,800
13.	93	Bahawalpur	92	Lodhran	18	6,569		
14.	90	Khanewal	92	Lodhran	92			5,400
15.	87	Mian Channu	90	Khanewal	46			5,400
16.	86	Cicha Watni	87	Mian Channu	35			5,400
17.	84	Sahiwal	86	Cicha Watni	40			5,400
18.	83	Okara	84	Sahiwal	37			5,400
19.	80	Lahore	83	OKara	132	1,413		5,400
20.	71	Gujranwala	80	Lahore	68			3,800
21.	70	Gujrat	71	Gujranwala	48			4,600
22.	61	Kharian	70	Gujrat	30			4,600
23.	60	Jhelum	61	Kharian	22			4,500
24.	46	Dina	60	Jhelum	23			4,500
25.	50	Mandra	46	Dina	36			4,500
26.	40	Islamabad/Rawalpindi	50	Mandra	32			3,750
27.	30	Hasanabdal	40	Islamabad/Rawalpindi	46	3,249		
28.	20	Attock	30	Hasanabdal	47	4,382		
29.	12	Nowshera	20	Attock	25	1,996		
30.	11	Peshawar	12	Nowshera	44	1,921		
31.	10	Torkhum	11	Peshawar	53			5,200
32.	107	Pishin	108	Chamman	68			
33.	106	Khanozi	107	Pishin	30			
34.	105	Qila Saifullah	106	Khanozi	109	8,376		
35.	105	Qila Saifullah	104	Loralai	72	5,907		
36.	104	Loralai	102	Mekhtar	79	9,082		
37.	101	Rakhni	102	Mekhtar	105	9,649		
38.	100	D.G. Khan	101	Rakhni	82	10,038		
39.	96	Muzaffargarh	100	D.G. Khan	60	5,790		
40.	91	Multan	96	Muzaffargarh	34	4,908		
41.	91	Multan	92	Lodhran	76	6,280		
42.	111	Bostan	107	Pishin	26			
43.	111	Bostan	106	Khanozi	40	5,755		
44.	110	Quetta	111	Bostan	26	5,532		
45.	112	Dhadar	110	Quetta	140			3,833

Link and Node Data Giving Estimates of Roughness Measured by Freight Survey & Kampsax. (Continued)

46.	113	Sibi	112	Dhadar	23	3,833	
47.	124	Dera Murad Jamil	113	Sibi	117	4,000	
48.	123	Jacobabad	124	Dera Murad Jamil	40	4,000	
49.	122	Shikarpur	123	Jacobabad	43	4,200	
50.	121	Rohri Sukkur	122	Shikarpur	42		4,200
51.	122	Shikarpur	125	Larkana	62	3,502	
52.	125	Larkana	126	Dadu	156	4,013	
53.	126	Dadu	131	Moro	24		4,000
54.	126	Dadu	127	Sehwan Sharif	51	3,934	
55.	127	Sehwan Sharif	128	Kotri	144	5,371	
56.	134	Hyderabad	139	Badin	103		
57.	139	Badin	129	Thatta	104		
58.	129	Thatta	128	Kotri	80	3,824	
59.	129	Thatta	140	Karachi	102	3,332	
60.	140	Karachi	141	Uthal	121		4,733
61.	141	Uthal	142	Bela	61		4,733
62.	142	Bela	143	Khuzdar	228		4,733
63.	143	Khuzdar	144	Surab	94		5,400
64.	144	Surab	145	Kalat	69		4,600
65.	145	Kalat	146	Mustung	94		5,800
66.	146	Mustung	110	Quetta	50		5,800
67.	210	Bolan	147	Nushki	75		2,000
68.	147	Nushki	148	Dalbadin	183		5,500
69.	148	Dalbadin	149	Nokundi	223		5,500
70.	149	Nokundi	150	Mir Jawa	142		5,500
71.	147	Nushki	151	Kharan	135		
72.	151	Kharan	152	Besima	113		
73.	152	Besima	144	Surab	89		
74.	152	Besima	153	Awaran	203		
75.	152	Besima	155	Panjgur	234		
76.	155	Panjgur	154	Hosab	156		
77.	154	Hosab	153	Awaran	167	17,419	
78.	153	Awaran	142	Bela	161	12,422	
79.	154	Hosab	156	Turbat	97	16,391	
80.	156	Turbat	157	Pasni	136	16,833	
81.	157	Pasni	158	Gwadar	169		
82.	158	Gwadar	156	Turbat	151		
83.	158	Gwadar	159	Jiwani	97		
84.	159	Jiwani	160	Mand	165		
85.	160	Mand	156	Turbat	122		
86.	42	Muzaffarabad	43	Rawalkot	95		
87.	101	Rakhni	114	Kholu	90		
88.	115	Kashmor	114	Kholu	229		
89.	122	Shikarpur	115	Kasmor	111		
90.	116	Ubauro	115	Kashmor	32		
91.	96	Muzaffargrah	94	T.M. Panha	108	6,541	
92.	132	Sakarand	135	Nowabshah	21		
93.	135	Nawabshah	136	Sanghar	64		
94.	136	Sanghar	137	Mirpur Khas	69		
95.	134	Hyderabad	137	Mirpur Khas	66	4,321	

Link and Node Data Giving Estimates of Roughness Measured by Freight Survey & Kampsax: (Continued)

96.	137 Mirpur Khas	138 Umar Kot	74	
97.	103 Zhob	105 Qila Saifullah	148	5,000
98.	102 Mekhtar	103 Zhob	121	
99.	103 Zhob	78 Wana	156	
100.	103 Zhob	77 D.I. Khan	174	5,800
101.	77 D.I. Khan	78 Wana	181	
102.	76 Srai Mohajir	77 D.I. Khan	64	6,205
103.	100 D.G Khan	77 D.I. Khan	208	8,029
104.	75 Jhang	76 Srai Mohajir	126	6,617
105.	96 Muzaffargarh	76 Srai Mohajir	161	6,807
106.	74 Faisalabad	75 Jhang	75	8,444
107.	87 Mian Channu	75 Jhang	124	
108.	91 Multan	75 Jhang	158	
109.	90 Khanewal	91 Multan	58	5,400
110.	87 Mian Channu	88 Vehari	47	
111.	86 Chicha Watni	74 Faisalabad	126	
112.	84 Sahiwal	85 Bahawalnaqar	87	
113.	73 Sheikhupura	74 Faisalabad	98	6,247
114.	80 Lahore	73 Sheikhupura	35	5,263
115.	80 Lahore	81 Wagha	23	2,552
116.	80 Lahore	82 Kasur	51	5,684
117.	73 Sheikhupura	79 Chiniot	107	7,100
118.	79 Chiniot	64 Sargodha	55	7,809
119.	79 Chiniot	74 Faisalabad	35	7,857
120.	75 Jhang	79 Chiniot	84	
121.	76 Sria Mohajir	53 Mainwali	121	6,989
122.	77 D.I. Khan	58 Tajazai	94	5,334
123.	56 Bannu	57 Miram Shah	62	
124.	56 Bannu	58 Tajazai	47	5,007
125.	55 Lachi	56 Bannu	84	5,663
126.	54 Kalabagh	58 Tajazai	82	7,870
128.	53 Mianwali	54 Kalabagh	46	6,867
129.	52 Talagang	53 Mianwali	101	7,771
130.	65 Khushab	53 Mianwali	89	6,077
131.	66 Pail	53 Talagang	47	
132.	66 Pail	65 Khushab	47	
133.	51 Chakwal	66 Pail	60	
134.	64 Sargodha	63 Bhalwal	40	
135.	63 Bhalwal	62 Miana Gondal	60	
136.	71 Gujranwala	73 Sheikhupura	50	
137.	71 Gujranwala	72 Sialkot	50	
138.	70 Gujrat	72 Sialkot	28	
139.	62 Maina Gondal	61 Kharian	90	
140.	65 Khushab	64 Sargodha	45	7,875
141.	60 Jhelum	67 Pind Dadn Khan	105	
142.	67 Pind Dadn Khan	51 Chakwal	65	
143.	50 Mandra	51 Chakwal	63	
144.	51 Chakwal	52 Talagang	43	
145.	21 Fathejang	52 Talagang	35	7,951
146.	110 Quetta	210 Bolan	70	2,000

Link and Node Data Giving Estimates of Roughness Measured by Freight Survey & Kampsax: (Continued)

147.	22 Kohat	55 Lachi	41	5,793	
148.	22 Kohat	23 Para Chinar	204		
149.	11 Peshawar	22 Kohat	64	4,922	
150.	21 Fathejang	22 Kohat	92	7,816	
151.	20 Attock	21 Fathejang	100		
152.	40 Islamabad/Rawalpindi	21 Fathejang	82	7,232	
153.	40 Islamabad/Rawalpindi	41 Murree	63		
154.	41 Murree	42 Muzaffarabad	47		
155.	113 Sibi	114 Hholu	155		
156.	43 Rawalakot	44 Kotli	70		
157.	44 Kotli	45 Mirpur	97		
158.	45 Mirpur	46 Dina	40		
159.	30 Hasanabdal	31 Abbottabad	71	8,111	5,500
160.	31 Abbottabad	32 Manshera	26	7,535	5,500
161.	32 Manshera	33 Besham	120	7,737	5,200
162.	33 Besham	34 Dasu	126	9,018	5,200
163.	34 Dasu	35 Sazin	63	6,771	5,800
164.	35 Sazin	36 Jeglot	100	7,946	
165.	36 Jeglot	37 Skardu	151	10,022	
166.	36 Jeglot	38 Gilgit	35	7,407	
167.	38 Gilgit	39 Khunjrab	286	7,478	
168.	33 Besham	17 Khwaza Khel	50		
169.	16 Saidu	17 Khwaza Khel	25	3,984	
170.	15 Malakand	16 Saidu	53	5,142	
171.	14 Mardan	15 Malakand	51	7,039	
172.	12 Nowshera	14 Mardan	15	3,502	
173.	11 Peshawar	13 Charsada	27	4,079	
174.	13 Charsada	14 Mardan	27	2,906	
175.	15 Malakand	18 Dir	100		
176.	18 Dir	19 Chitral	80		
