



Time/Cost-Distance Methodology UNESCAP

Workshop on Trade Logistics Development
Tashkent, Uzbekistan
2-4 September 2008

What is the UNESCAP Time/Cost Distance Methodology

How to Fill Up the Forms

Interpretation of Data

What is the Time/Cost – Distance Methodology?

- The “UNESCAP Time/Cost – Distance Methodology”
 - a graphical representation of cost and time data associated with transport processes
 - identify inefficiencies /bottlenecks by analyzing cost and time characteristics of every section along a route.

- The methodology can help policy makers to:
 - ❑ Analyze cost and time required to transport goods along certain routes;
 - ❑ Compare the changes in cost and/or time over a period of time ;
 - ❑ Compare and evaluate competing modes of transport operating on the same route; and
 - ❑ Consider alternative transit routes.

Benefits of the Time/Cost – Distance Methodology

- Provides specific information to improve transport efficiency:
 - Provides detailed break-down of cost and time for every activity along a route.
 - Create data base -costs for particular commodities, demurrage charges and other indirect costs to help evaluate logistics performance.
- Helps policy makers prioritize projects and focus on the most critical issues.
 - Help identify bottlenecks and barriers in international transport.
 - Basis to make rational transport facilitation policy decisions (e.g. route prioritization, allocation of funds, allocation of socio-economic development efforts).

Objectives

- For Trade Facilitation Project - main objectives of the data collection exercise are:
 - Gather sufficient data on the costs and time involved in transporting goods along specific routes identified as priority corridors.
 - Analysis of the data using graphical representations to help policy makers decide how to best address bottlenecks, remove constraints, and improve efficiency in these specific routes.

What kind of data are collected?

- The methodology captures both qualitative and quantitative information.
- Preliminary information required:
 - Transport route – from place of departure, any kind of stops (e.g. border crossings) to final destination
 - Type of goods transported (e.g. specification if only one kind or multi-packaging of goods) as well as on the quantity and/or value.
- Required data can be best provided by transport operators and/or freight forwarders involved in cargo transport along the specified route. Thus the cooperation of national freight forwarders or transport associations will be essential in the conduct of the study.

Entire model – all in one MS Excel file

- [..\..\TCD methodology\UNESCAP time cost distance methodology\TCD Template EN.xls](#)

How to fill out Part A of the questionnaire

Microsoft Excel - EN_0507_TCD Template detailed v2.0.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

F25

	A	B	C	D	E	F	G	H	I	J	K	L	M
1							[Name of Project]						
2													
3													
4													
5		a		Date of questionnaire completion:									[date of filling out the questionnaire]
6		b		Route description:									[detailed route description]
7		c		Goods:									[type of good(s) transported]
8		d		Quantity:									[TEU]
9		e		Nationality of driver:									[Only applicable when road]
10		f		Country of vehicle registration:									[Only applicable when road]
11		g		Effective date of transport start:									[date when transport leaves the place of departure]
12		h		Effective delivery date of goods:									[date when transport reaches the final destination]
13		i		Was the transport performed under an international transit system (e.g. TIR, NCTS)?									yes/no, please specify the type of international transit system applicable]
14		j		Overall distance of route:			0						km
15													
16													
17													
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29													
30													

The worksheets "Part A - General Questions" and "Part B - Route" require your input and information. Please fill out the highlighted cells only.

PART A - General Questions / PART B - Route / Graph Time-Distance / Graph Cost - Distance / Graph - All-in-One / Graph Average Speed / Data A1

Ready NUM

How to fill out Part B of the questionnaire?

Microsoft Excel - EN_0507_TCD Template detailed v2.0.xls

File Edit View Insert Format Tools Data Window Help

K11 Exit Border Crossing

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2			LEG 1						LEG 2						LEG 3							
3	Place of departure	Name of city:							0						0							
4		Name of country:							0						0							
5	Mode of Transport		road						rail													
6	Distance to next stop		km						km						km							
7	Duration of travel		hrs		min				hrs		min				hrs		0		min			
8	Costs per leg (while en route, in USD)		\$0.00						\$0.00						\$0.00							
9	Place of next stop	Name of city:																				
10		Name of country:																				
11	Reason for stop		Intermediate Stop						Exit Border Crossing													
12	Description of stop		Type of activity	Duration		Costs		Intermediate Stop		Duration		Costs		Type of activity	Duration		Costs					
13		Activity A at stop		hrs	min				Exit Border Crossing				hrs		min		\$0.00					
14		Activity B at stop		hrs	min				Entry Border Crossing				hrs		min		\$0.00					
15		Activity C at stop		hrs	min				Final Destination				hrs		min		\$0.00					
16		Activity D at stop		hrs	min						hrs		min		\$0.00		\$0.00					
17		Activity E at stop		hrs	min						hrs		min		\$0.00		\$0.00					
18		Activity F at stop		hrs	min						hrs		min		\$0.00		\$0.00					
19	Activity G at stop		hrs	min						hrs		min		\$0.00		\$0.00						
20			0	hrs	0	min	\$0.00	0	hrs	0	min	\$0.00	0	hrs	0	min	\$0.00	0	hrs	0	min	\$0.00
21	Description of actions taken (e.g. procedures, formalities applicable to the section of the route).																					
22																						
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Ready NUM

How to fill out Part B of the questionnaire?

Microsoft Excel - EN_0507_TCD Template detailed v2.0.xls

File Edit View Insert Format Tools Data Window Help

K11 Exit Border Crossing

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
2			LEG 1						LEG 2						LEG 3								
3	Place of departure	Name of city:							0						0								
4		Name of country:							0						0								
5	Mode of Transport		road						rail														
6	Distance to next stop		km	hrs		min		km	hrs		min		km	hrs		min							
7	Duration of travel														0 min								
8	Costs per leg (while en route, in USD)		\$0.00						\$0.00						\$0.00								
9	Place of next stop	Name of city:																					
10		Name of country:																					
11	Reason for stop		Intermediate Stop						Exit Border Crossing														
12	Description of stop	Type of activity	Duration		Costs		Intermediate Stop		Exit Border Crossing		Type of activity		Duration		Costs								
13		Activity A at stop	hrs	min				Exit Border Crossing				hrs		min		\$0.00							
14		Activity B at stop	hrs	min				Entry Border Crossing				hrs		min		\$0.00							
15		Activity C at stop	hrs	min				Final Destination				hrs		min		\$0.00							
16		Activity D at stop	hrs	min								hrs		min		\$0.00							
17		Activity E at stop	hrs	min								hrs		min		\$0.00							
18		Activity F at stop	hrs	min								hrs		min		\$0.00							
19		Activity G at stop	hrs	min								hrs		min		\$0.00							
20			0 hrs	0 min		\$0.00		0 hrs	0 min		\$0.00		0 hrs	0 min		\$0.00							
21	Description of actions taken (e.g. procedures, formalities applicable to the section of the route).																						

Ready NUM

PART A - General Questions | PART B - Route | Graph Time-Distance | Graph Cost - Distance | Graph - All-in-One | Graph Average Speed | Data A

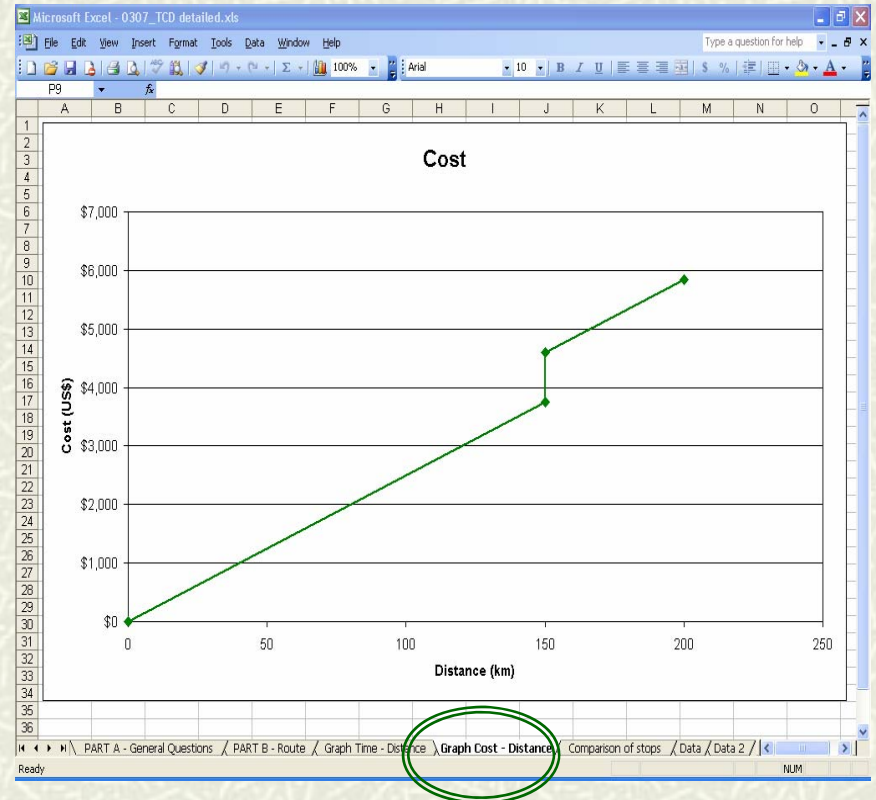
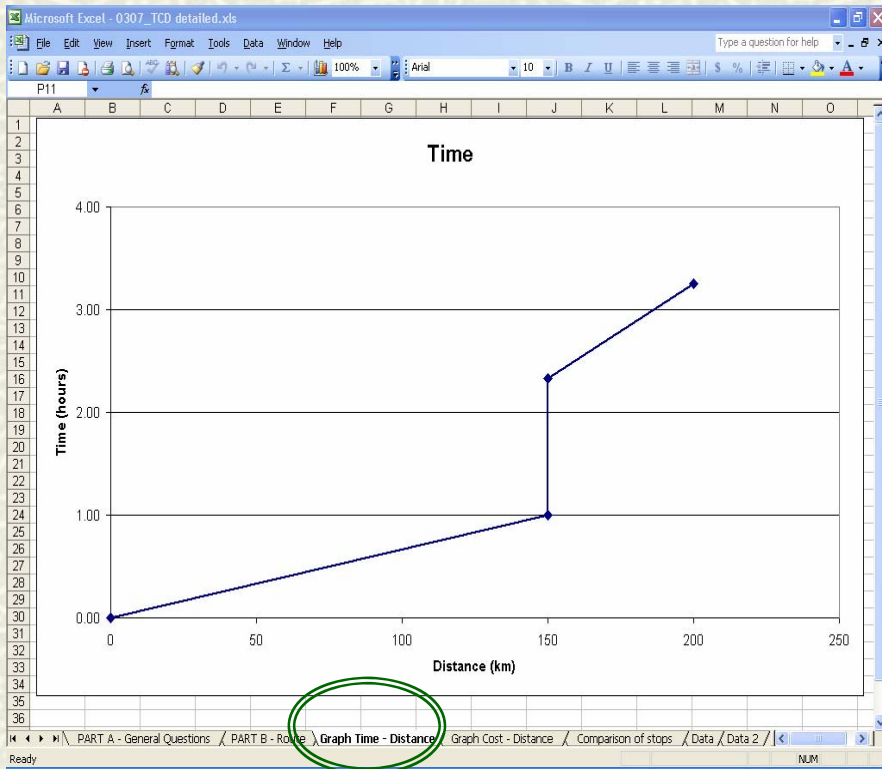
- Please note that the cells circled contain drop-down menus, which you see by clicking on the cell. Choose answers from the drop-down menu.

Example: Tajikistan- Xinjiang Uygur

■
[Excel file Tajikistan sample.xls](#)

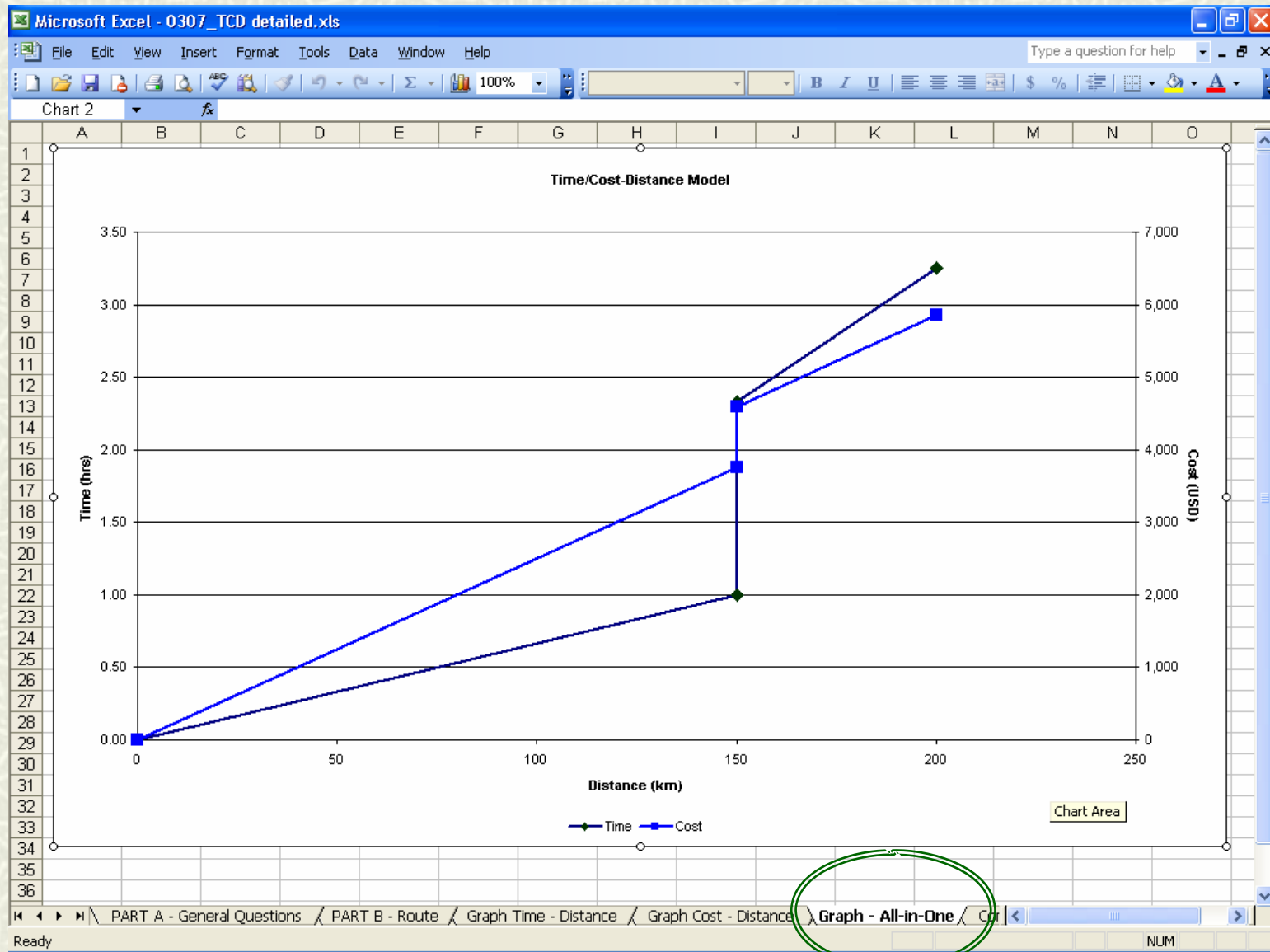
Graphs are plotted automatically

Time over Distance



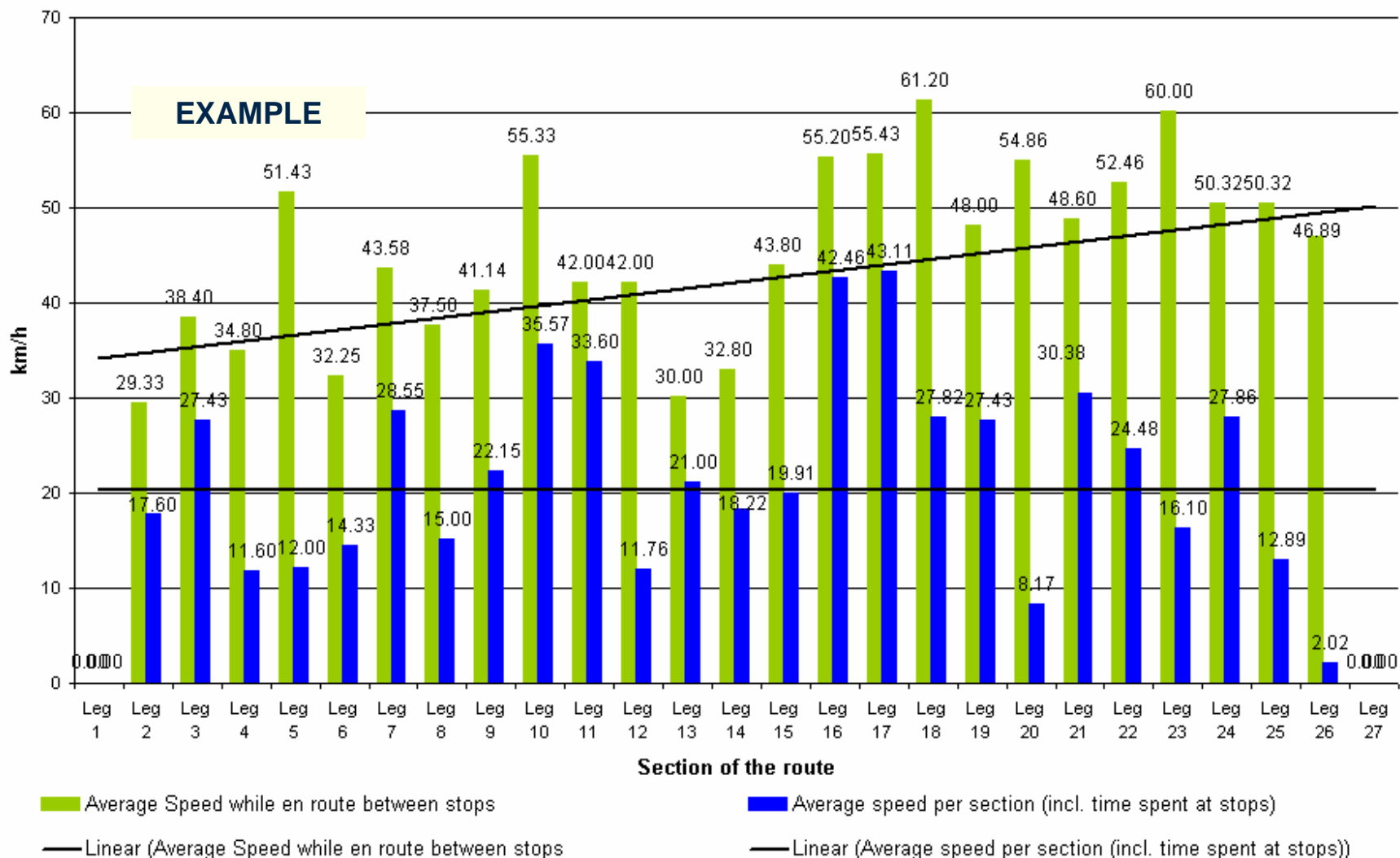
Cost over Distance

Time and Cost in one graph

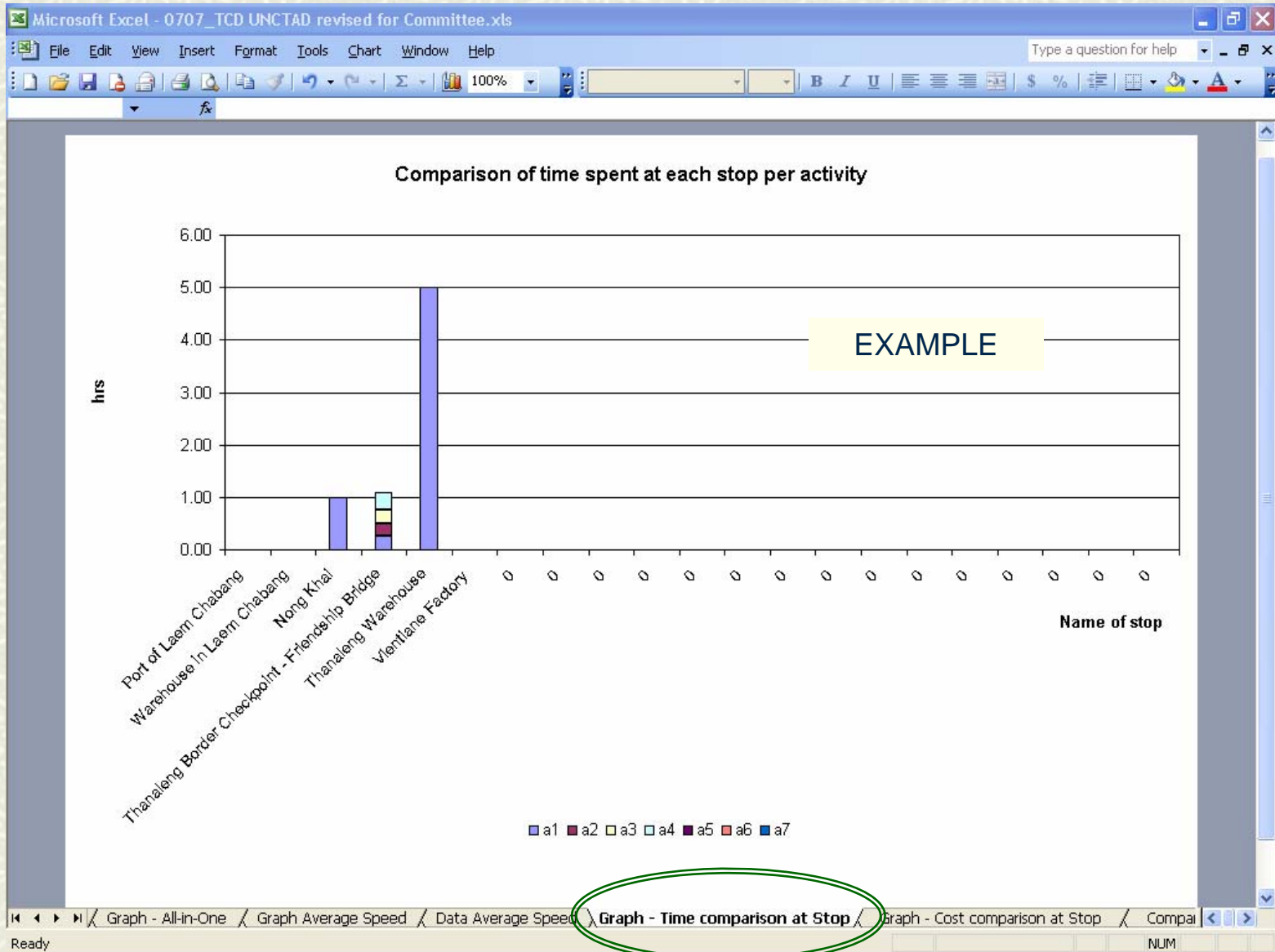


Comparison of average speed per section of the route

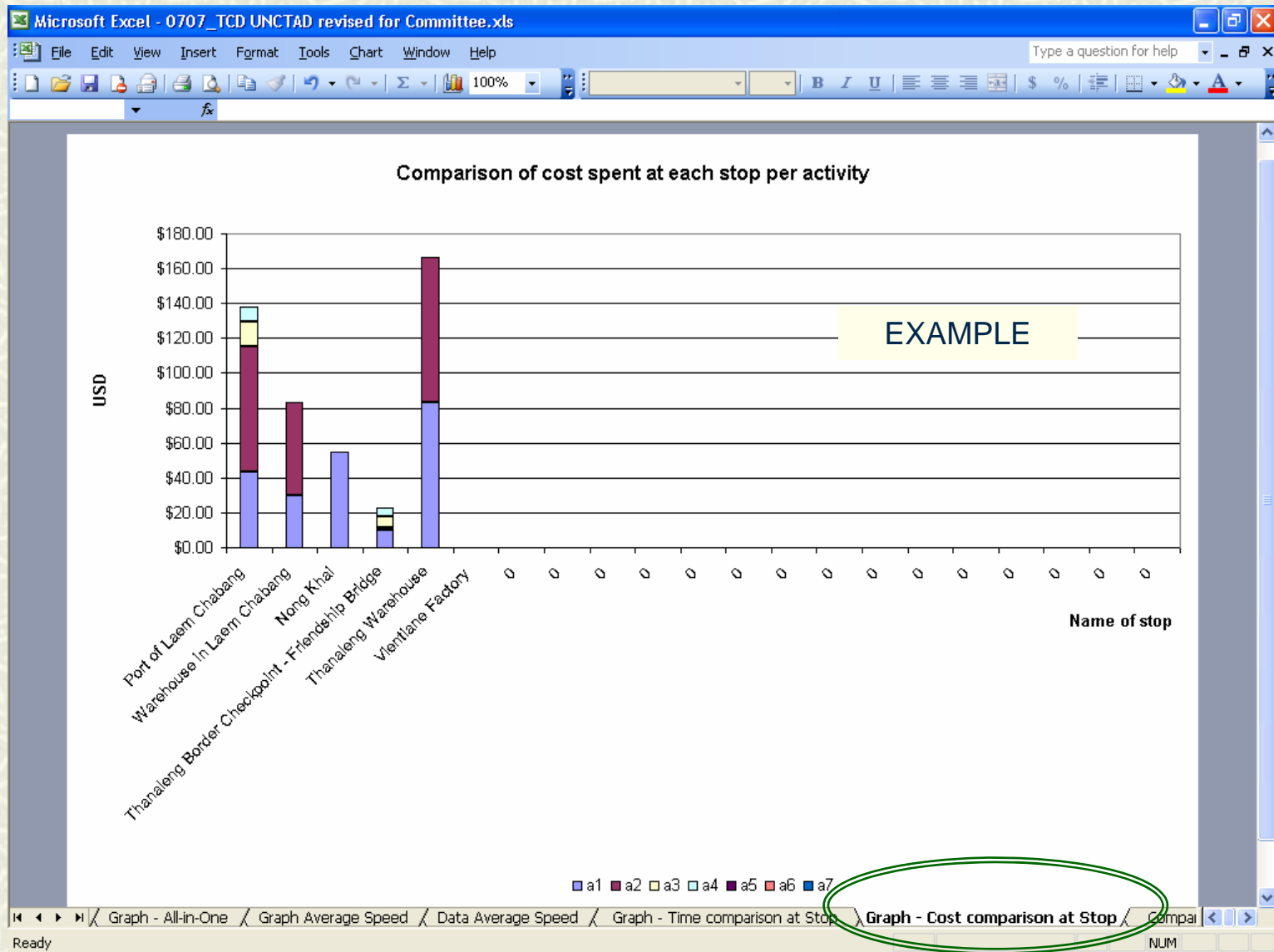
Average speed on EATL Route 5 (Rail): Bandar Abbas to Anzali



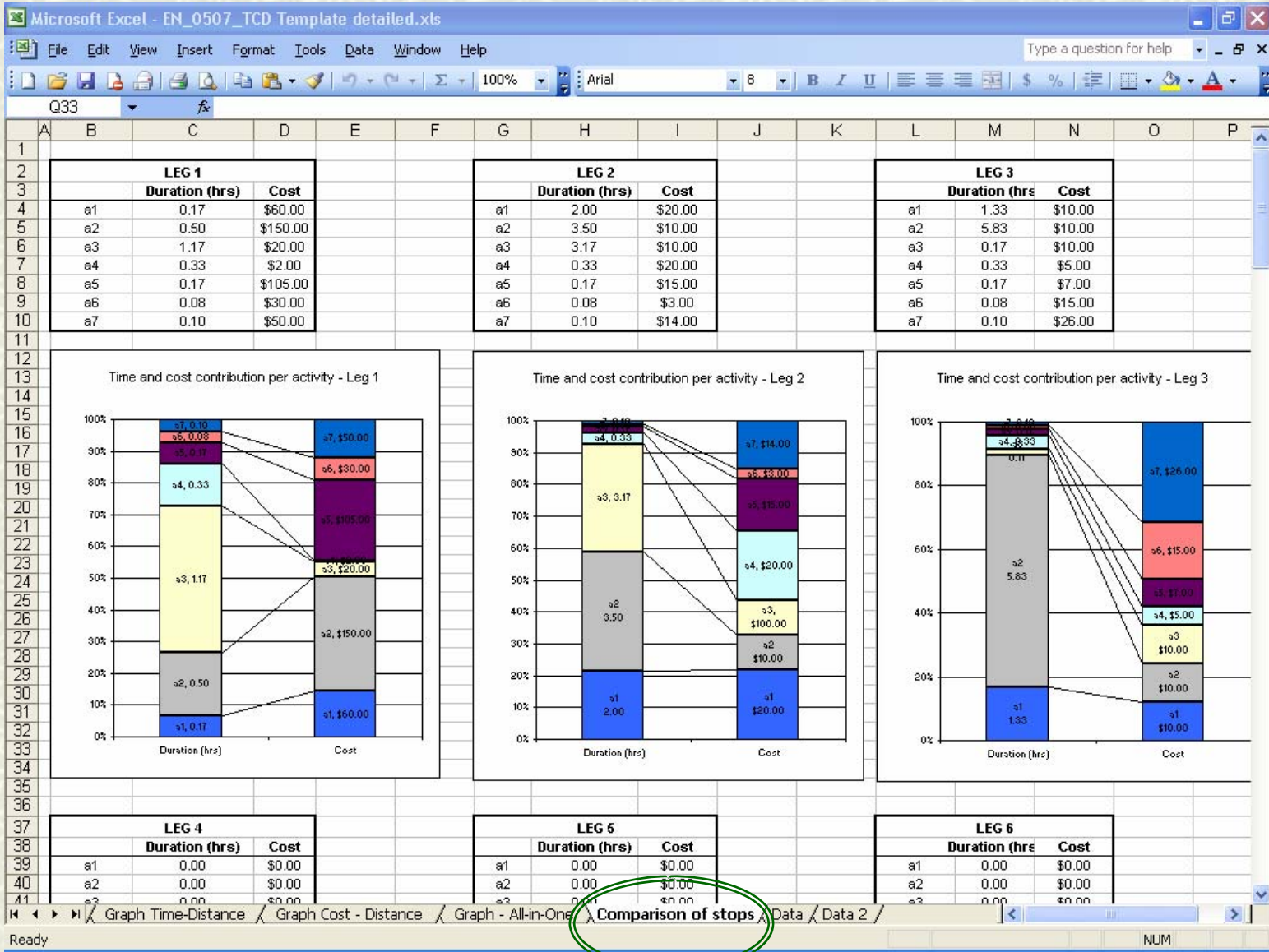
Comparison of time consumption at stops along the route



Comparison of cost consumption at stops along the route



Relationship between time and cost per activity at stops



Thank You