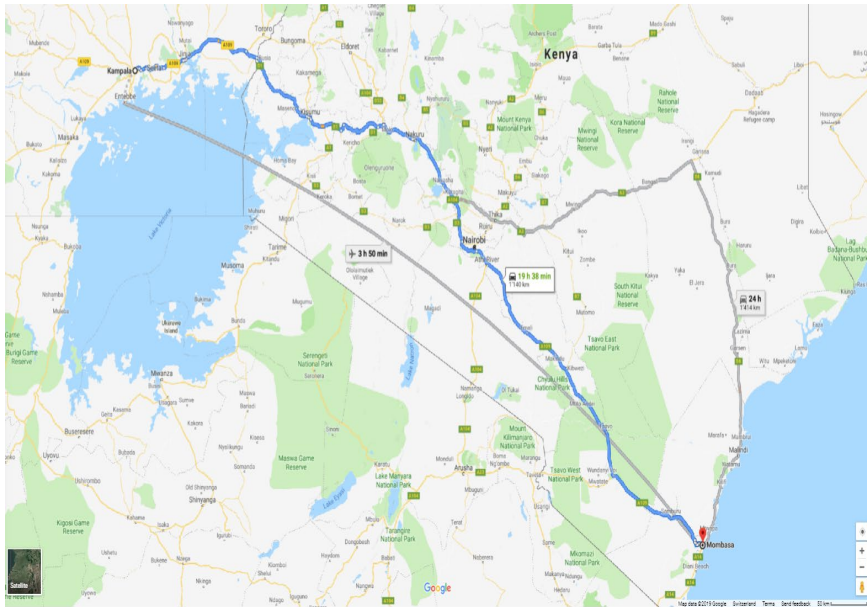


**Group Exercise
on the
Time/Cost-Distance
Methodology**

- Basic Template Version -

Overview

- Kampala - Mombasa - Shanghai



Where to get the data?

Road and Air

- Time and distance
- <https://www.google.com>
- Waze app
- Average travel time and distance automatically calculated
- Costs
 - Freight forwarder
 - Kenya International Freight and Warehousing Association (KIFWA)
 - Federation of East African Freight Forwarders Associations (FEAFFA)

Sea

- Time and distance
- <https://sea-distances.org/>
- Average ship speed
 - Container ship 18 knots
 - Bulk carrier 14 knots
- Costs
 - <https://worldfreightrates.com/freight>
 - TEU – Value \$k

The questionnaire – One MS Excel worksheet, three parts

UNCTAD Project "Capacity Building in Trade and Transport Facilitation for Landlocked and Transit Developing Countries"

Part I

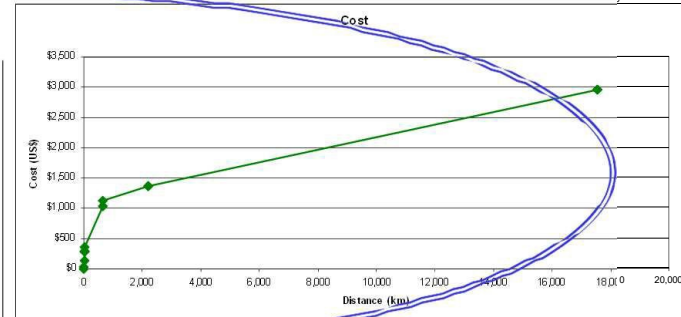
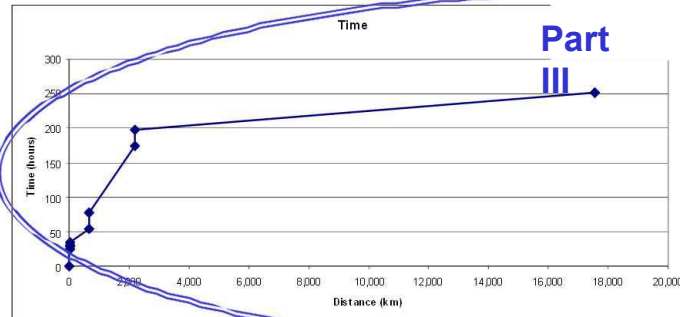
Questionnaire for Application of Time/Cost-Distance Model

a. Date of questionnaire completion: b 16/02/2007
 Route description: Transit Transport from Vientiane (Lao PDR) to Rotterdam (Netherlands) via Bangkok Port (Thailand)
 c. Goods: 1 TEU
 d. Quantity: not available [Only applicable when road] not available [Only applicable when road] not available
 e. Nationality of driver: not available
 f. Country of vehicle registration: g
 Effective date of transport start: h Effective delivery date of goods:
 i. Was the transport performed under an international transit system (e.g. TR, NCTS)? not available

Data table (Please fill in the highlighted cells and scroll down to see how the data translates into the graphs of "Time to Distance" and "Cost to Distance")

Part II

Line no.	Place of departure (place and country)	Mode of transport	Distance to next stop (km)	Duration of travel		Costs while en route (in USD)	Place of next stop (place and country)	Reason for stop	stop		Costs at stop (in USD)	Description of actions taken (e.g. procedures, formalities applicable to the section of the route). Please also provide a break-down of costs as well as a break-down of time used for individual procedures (e.g. customs, fueling).	Cumulative distance (km)	Cumulative time (in hours)	Cumulative costs (in USD)
				hrs	min				hrs	min					
1	Vientiane (Lao PDR)	-	0	0	0	\$0.00	Vientiane (Lao PDR)	Place of Departure (Pre-shipment formalities and loading)	24	0	\$28.17	Break-down of cost: \$18 for customs papers, \$10.17 for uploading. Break-down of time: 17 hours for uploading, 3 hours waiting, 4 hours customs procedures	0	24.00	\$28.17
2	Vientiane (Lao PDR)	road	25	1	30	\$112.68	Thanaleng (Lao PDR)	Intermediate Stop	4	0	\$140.00	All stop: clearance (1hr, no cost), storage and loading (3 hrs, \$140) during travel: \$112.68 for operational costs	25	25.50	\$140.85
3	Thanaleng (Lao PDR)	road	0	0	0	\$0.00	Friendship Bridge (Lao PDR)	Exit Border Crossing	0	0	\$0.00	customs and other formalities	25	29.50	\$280.85
4	Friendship Bridge (Lao PDR)	road	3	0	30	\$0.00	Nongkai (Thailand)	Entry Border Crossing	5	0	\$85.00	gate fee (\$ 20, 2 hrs wait period), weight fee (\$20, 1hr), unloading plus transit entry document (\$45, 2 hrs)	28	30.00	\$280.85
5	Nongkai (Thailand)	road	630	19	0	\$676.00	Bangkok Port (Thailand)	Intermediate Stop	24	0	\$92.00	Unloading/loading, storage, seal inspections, clearances	658	54.00	\$1,041.85
6	Bangkok Port (Thailand)	ship	1,540	96	0	\$230.00	Port of Singapore (Singapore)	Intermediate Stop	24	0	\$0.00	waiting for transshipment, feeder connection (24 hrs)	2,198	174.00	\$1,363.85
7	Port of Singapore (Singapore)	ship	15,355	54	0	\$1,602.00	Rotterdam Port (Netherlands)	Final Destination	0	0	\$0.00		17,557	252.00	\$2,965.85
													17,557	252.00	\$2,965.85



How to fill out Part I of the questionnaire?

a	Date of questionnaire completion:			10-May-2019	
b	Route description:			Kampala to Shanghai	
c	Goods:			Tea	
d	Quantity:			1 TEU	
e	Nationality of driver:			Ugandan	
f	Country of vehicle registration:			Uganda	
g	Effective date of transport start:			1-May-2019	
h	Effective delivery date of goods:			21-May-2019	
i	Was the transport performed under an international transit system (e.g. TIR, NCTS)?			No	

Row

- A. Please insert the date of questionnaire completion.
- B. Please provide a description of the route (e.g. place of departure and destination).
- C. Please choose the type of goods and indicate, whether it is only one type or different types of goods.
- D. Please indicate the quantity and/or value of the goods transported.
- E. [for road only] Please enter the nationality of the driver is important for road transport.
- F. [for road only] Please enter country of vehicle registration.
- G. Please provide the date when the goods are supposed to leave the place of departure.
- H. Please provide the date when the goods are supposed to arrive at their final destination.
- I. Please indicate any international transit system which has been used for the chosen transport, if the transport is not an international system then please say so in your response.

How to fill out Part II of the questionnaire? – I/IV

Microsoft Excel - 160207_TC Model Example master file.xls

File Edit View Insert Format Tools Data Window Help

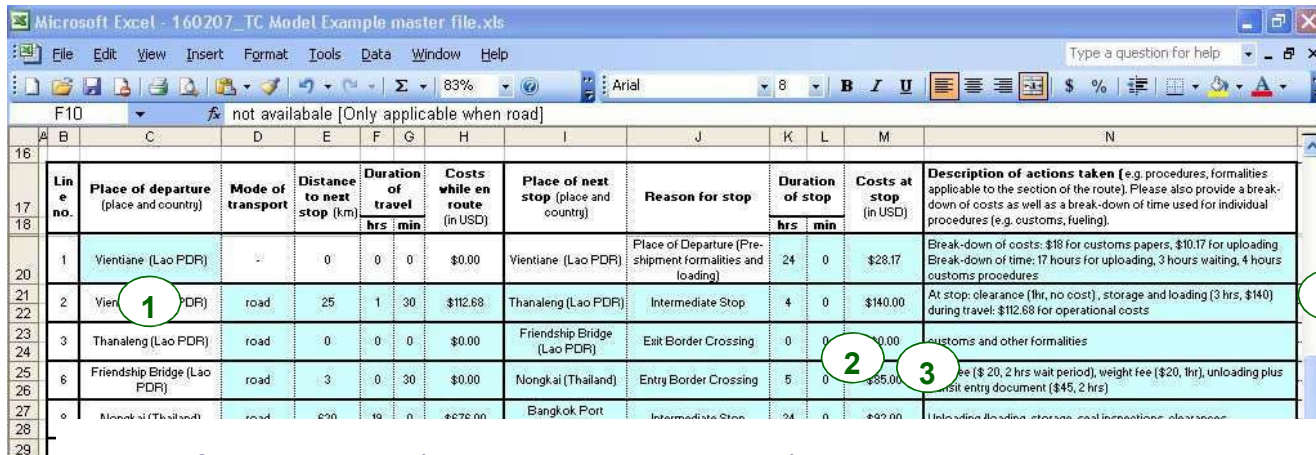
Type a question for help

J23 Exit Border Crossing

Line no.	Place of departure (place and country)	Mode of transport	Distance to next stop (km)	Duration of travel (hrs min)	Costs while en route (in USD)	Place of next stop (place and country)	Reason for stop	Duration of stop (hrs min)	Costs at stop (in USD)	Description of actions taken (e.g. procedures, formalities applicable to the section of the route). Please also provide a break-down of costs as well as a break-down of time used for individual procedures (e.g. customs, fueling).
1	Vientiane (Lao PDR)		0	0 0	\$0.00	Vientiane (Lao PDR)	Place of Departure (Pre-shipment formalities and loading)	24 0	\$28.17	Break-down of costs: \$18 for customs papers, \$10.17 for uploading. Break-down of time: 17 hours for uploading, 3 hours waiting, 4 hours customs procedures.
2	Vientiane (Lao PDR)	road	25	1 30	\$112.68	Thanaleng (Lao PDR)	Intermediate Stop	4 0	\$140.00	At stop: clearance (thr, no cost), storage and loading (3 hrs, \$140) during travel: \$112.68 for operational costs.
3	Thanaleng (Lao PDR)	road	0	0 0	\$0.00	Friendship Bridge (Lao PDR)	Exit Border Crossing		\$0.00	customs and other formalities
6	Friendship Bridge (Lao PDR)	road	3	0 30	\$0.00	Nongkai (Thailand)	Entry Border Crossing		\$85.00	gate fee (\$20, 2 hrs wait period), weight fee (\$20, thr), unloading plus transit entry document (\$45, 2 hrs)
8	Nongkai (Thailand)	road	630	19 0	\$676.00	Bangkok Port (Thailand)	Intermediate Stop		\$92.00	Unloading/loading, storage, seal inspections, clearances
9	Bangkok Port (Thailand)	ship	1,540	96 0	\$230.00	Port of Singapore (Singapore)	Intermediate Stop	24 0	\$0.00	waiting for transshipment, feeder connection (24 hrs)
10	Port of Singapore (Singapore)	ship	15,359	54 0	\$1,602.00	Rotterdam Port (Netherlands)	Final Destination	0 0	\$0.00	

- Please fill out all of the highlighted cells in Part II of the questionnaire.
- Please read each line from left to right. Each line captures one section of the journey (i.e. from one stop to another).
- Please note that the cells circled contain drop-down menus, which you see when clicking on the cell. Please choose your answers from the drop-down menu.

How to fill out Part II of the questionnaire? – II/IV



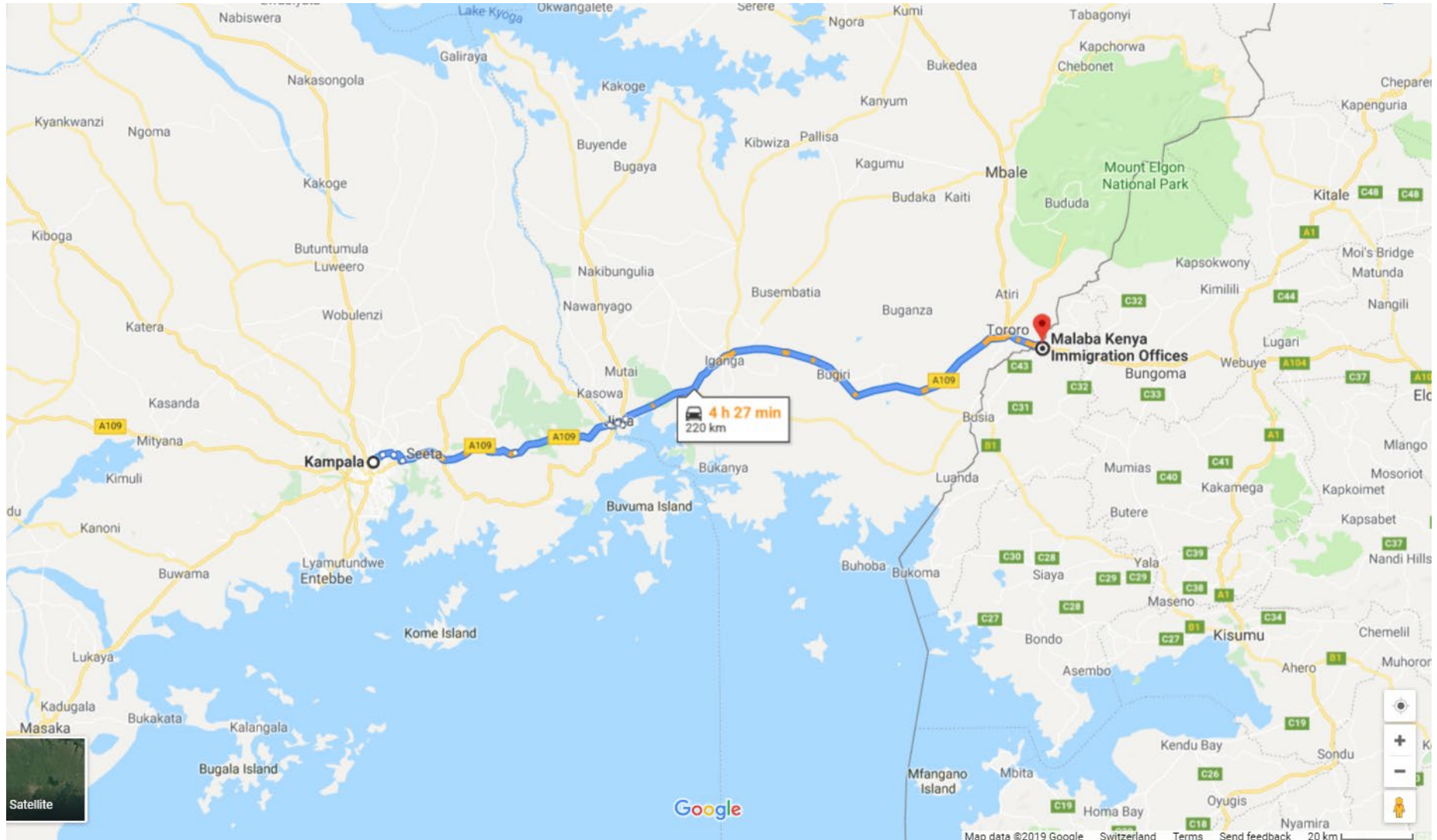
The screenshot shows an Excel spreadsheet with a table containing transportation data. A red arrow points to the first row of data (row 19). The table has columns for Line no., Place of departure, Mode of transport, Distance to next stop, Duration of travel, Costs while en route, Place of next stop, Reason for stop, Duration of stop, Costs at stop, and Description of actions taken. The first row (row 19) is highlighted in light blue. Circled numbers 1, 2, 3, and 4 point to specific cells in this row: 1 points to the Place of departure, 2 points to the Duration of stop (hours), 3 points to the Costs at stop, and 4 points to the Description of actions taken.

Line no.	Place of departure (place and country)	Mode of transport	Distance to next stop (km)	Duration of travel (hrs min)	Costs while en route (in USD)	Place of next stop (place and country)	Reason for stop	Duration of stop (hrs min)	Costs at stop (in USD)	Description of actions taken (e.g. procedures, formalities applicable to the section of the route). Please also provide a break-down of costs as well as a break-down of time used for individual procedures (e.g. customs, fueling).
1	Vientiane (Lao PDR)		0	0 0	\$0.00	Vientiane (Lao PDR)	Place of Departure (Pre-shipment formalities and loading)	24 0	\$28.17	Break-down of costs: \$18 for customs papers, \$10.17 for uploading. Break-down of time: 17 hours for uploading, 3 hours waiting, 4 hours customs procedures.
2	Vientiane (Lao PDR)	road	25	1 30	\$112.68	Thanaleng (Lao PDR)	Intermediate Stop	4 0	\$140.00	At stop: clearance (1hr, no cost), storage and loading (3 hrs, \$140) during travel: \$112.68 for operational costs.
3	Thanaleng (Lao PDR)	road	0	0 0	\$0.00	Friendship Bridge (Lao PDR)	Exit Border Crossing	0 0	\$0.00	Customs and other formalities.
6	Friendship Bridge (Lao PDR)	road	3	0 30	\$0.00	Nongkai (Thailand)	Entry Border Crossing	5 0	\$65.00	Clearance (\$20, 2 hrs wait period), weight fee (\$20, 1hr), unloading plus transit entry document (\$45, 2 hrs).
8	Mookdai (Thailand)	road	60	19 0	\$276.00	Bangkok Port	Intermediate Stop	24 0	\$92.00	Including loading, storage, and transportation charges.

- Please fill out row 1 (highlighted cells only):

- Step:**
1. Enter the name and the country that indicate the place of departure. For example: Kampala, Uganda
 2. Enter the total amount of time spent at the place of departure by providing the hours and the minutes. Please enter the total amount of time (For example: 20 minutes for fueling, 15 minutes for customs and 5 minutes at the restroom, then please enter 40 minutes).
 3. Fill in the amount of costs incurred at the place of departure. If you have several payments, please insert the total amount only (For example: "\$28.17" or if you paid 50 USD for fuel and 10 USD at customs, then please enter "\$60").
 4. Describe any actions (e.g. fueling, rest period) undertaken at the stop and provide details, if applicable, regarding the break-down of the time spent (see step 2) and of the different costs (see step 3).

Kampala - border

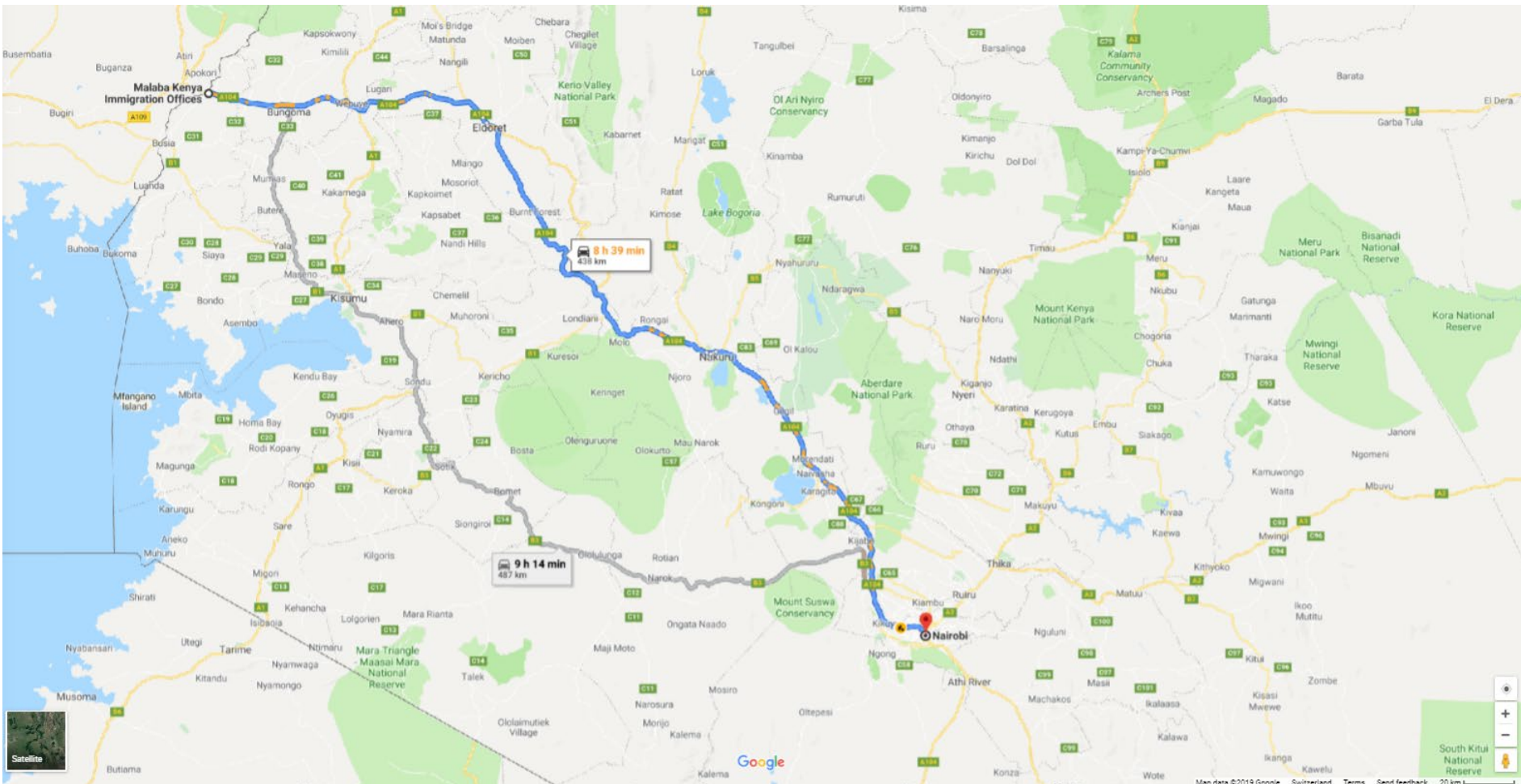


How to fill out Part II of the questionnaire? – III/IV

Line no.	Place of departure (place and country)	Mode of transport	Distance to next stop (km)	Duration of travel		Costs while en route (in USD)	Place of next stop (place and country)	Reason for stop	Duration of stop		Costs at stop (in USD)	Description of actions taken (e.g. procedures, formalities applicable to the section of the route). Please also provide a break-down of costs as well as a break-down of time used for individual procedures (e.g. customs, fueling).
				hrs	min				hrs	min		
1	Vientiane (Lao PDR)		6	0	0	\$0.00	Vientiane (Lao PDR)	Place of Departure (Pre-shipment formalities and loading)	24	0	\$28.17	Break-down of costs: \$18 for customs papers; \$10.17 for uploading. Break-down of time: 17 hours for uploading, 3 hours waiting, 4 hours customs procedures
2	Vientiane (Lao PDR)	road	25	1	30	\$112.68	Thanaleng (Lao PDR)	Intermediate Stop	4	0	\$140.00	At stop: clearance (1hr, no cost), storage and loading (3 hrs, \$140) during travel: \$112.68 for operational costs
3	Thanaleng (Lao PDR)		5	0	7	8	Friedgen (Lao PDR)	Border crossing	10	11	12	customs and other formalities

- Step: 5.** Choose from the drop-down menu the mode of transport used to get from departure to next stop.
6. Enter the distance in kilometer from departure to next stop.
 7. Enter the duration of the journey from departure to next stop by providing the hours and the minutes.
 8. Enter the costs of the journey from departure to next stop in USD.
 9. Enter name of place and country of next stop.
 10. Choose from the drop-down menu the best description of the nature of the stop.
 11. Enter the total amount of time spent at the stop (in hours and minutes).
 12. Fill in the total amount of costs incurred at the stop.
 13. Describe any actions (e.g. fueling, rest period) undertaken at the stop and provide details, if applicable, regarding a break-down of the time spent (see step 7 and 11) and of the different costs (see step 8 and 12).

Border - Nairobi



How to fill out Part II of the questionnaire? – IV/IV

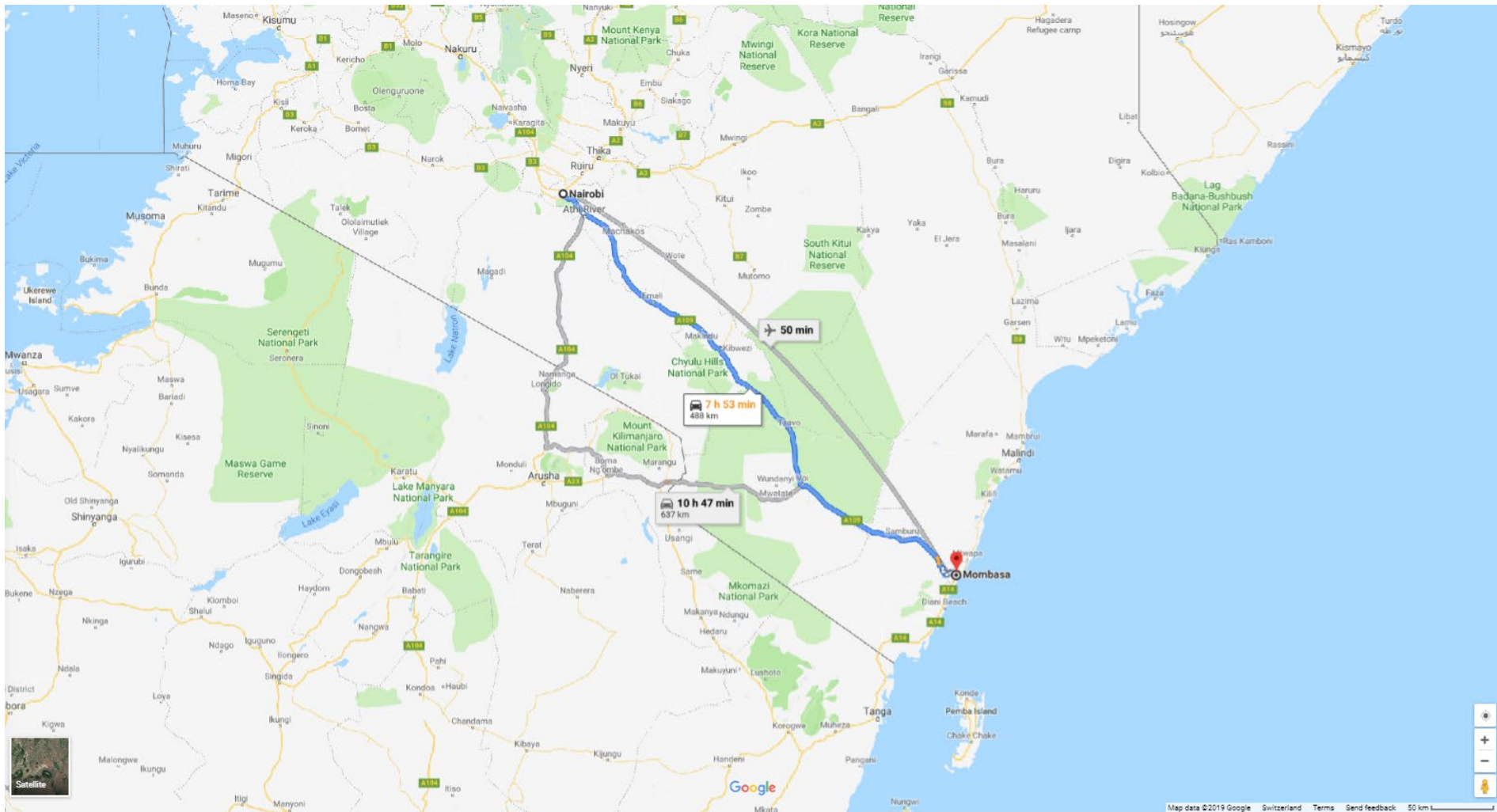
Line no.	Place of departure (place and country)	Mode of transport	Distance to next stop (km)	Duration of travel (hrs min)	Costs while en route (in USD)	Place of next stop (place and country)	Reason for stop	Duration of stop (hrs min)	Costs at stop (in USD)	Description of actions taken (e.g. procedures, formalities applicable to the section of the route). Please also provide a break-down of costs as well as a break-down of time used for individual procedures (e.g. customs, fueling).
6	Bangkok Port (Thailand)	ship	15,353	54 0	\$2,160.00	Port of Singapore (Singapore)	Intermediate Stop	24 0	\$0.00	shipment, feeder connection (24 hrs)
7	Port of Singapore (Singapore)	ship	15,353	54 0	\$1,602.00	Rotterdam Port (Netherlands)	Final Destination	0 0	\$0.00	

Please repeat the steps of row 2 for as many rows as you have stops before reaching the final destination. (In the example there are rows 3 to 6, see slide XII.)

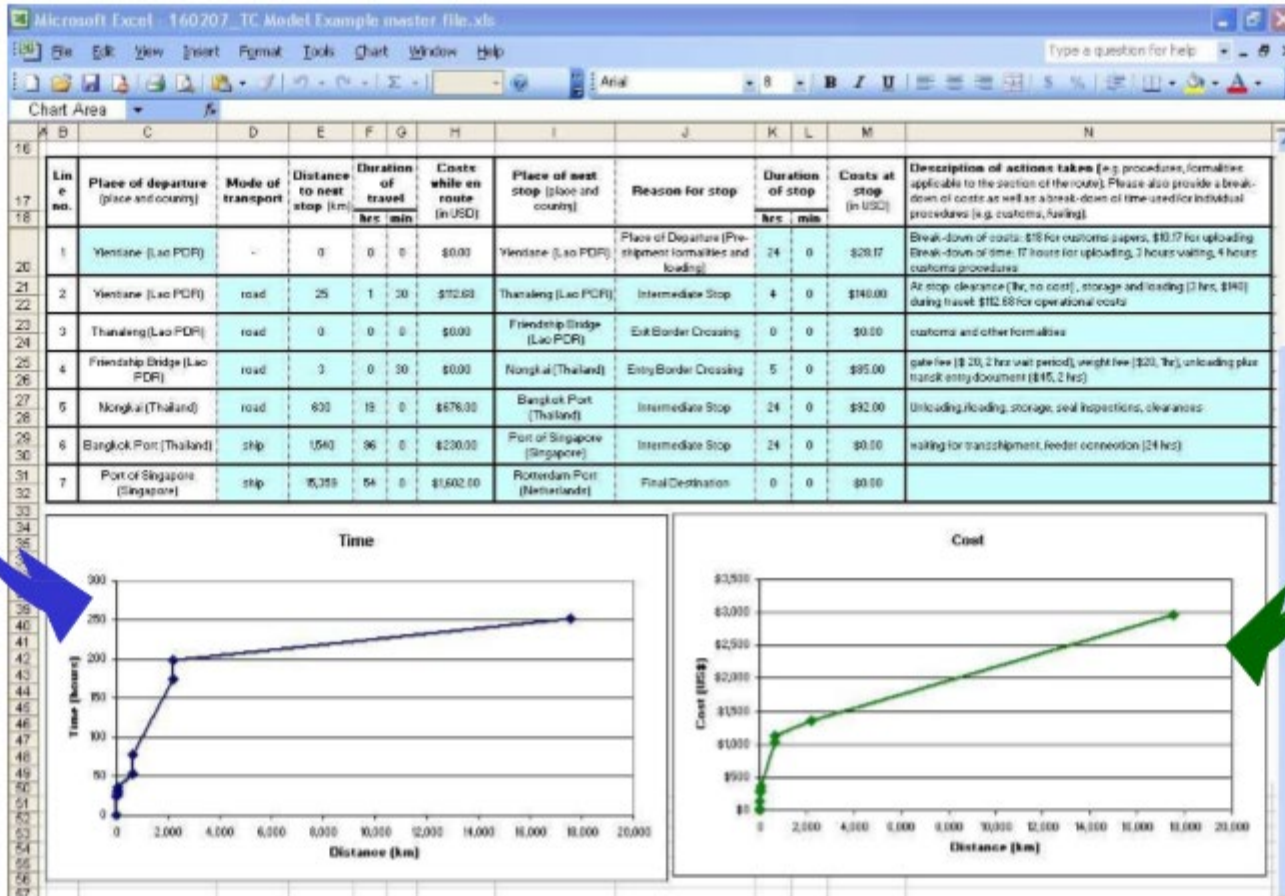
When reaching the final destination, please fill out the last row (highlighted cells only):

- Step :** 14. Please choose from the drop-down menu the mode of transport used to get from departure to next stop (same as step 5).
- Step :** 15. Please enter the distance in kilometer from departure to next stop, which will be the final destination (similar to step 6).
- Steps 16 and 17:** • Please enter the duration and the costs of the journey from departure to next stop in hours.
- Steps 18 and 19:** • Please enter name and country of the final destination. Choose from the drop-down menu “Final destination”.
- Steps 20, 21 and 22:** • Please enter the total amount of time and costs spent at the final destination for individual activities. Add a detailed description of activities.

Nairobi - Mombasa



Part III: How to plot the graphs?



- The individual charts “Time over Distance” (left) and “Cost over Distance” (right) are plotted automatically as a function of the information you entered into the highlighted cells.

Time

