

Exercise 5a: Filling in dummy data for – *Combustion in transport (simple) and other sectors (Optional)*

1. Continue working with the workbook 'Malé Inv workbook Version 3_test data.xls' you saved at the end of Exercise 4.
2. Go to **Menu 1** and then go to **Sheet: 1.1.1b 'Fuel consumption in thousands of tonnes oil equivalent per year (ktoe/year)'**
3. In the white cells for '**Transport**' sector, enter **30** toe for the amounts of '**Kerosene type jet fuel**' used in *Civil aviation* and **30** toe for the '**Gas/diesel**' consumed in Road transport. Then under '**Combustion in other sectors**' enter **100** toe for the '**Wood**' burnt in the *Residential* sector. (**Do not** enter data into grey cells.)
4. Go to **Sheet 1.1.2** and check whether any NCVs need to be entered for '*Transport*' or '*Combustion in other sectors*'. (Answer should be 'no'!)
5. Go to **Sheet 1.1.3 Error check sheet for net calorific values for fuel (toe/t)** to see if all sectors by fuel type are 'OK'.
6. Go back to menu and then to **Sheet 1.2.3 Sulphur dioxide (SO₂) [Simple method] - Calculation of emission factors and emissions, Transport** and enter default '**Sulphur content of fuels**' values.
7. Go to **Sheet 1.2.4 Sulphur dioxide (SO₂) - Calculation of emission factors and emissions for Combustion in Other Sectors** and enter the default '**Sulphur content of fuel**' value for **Wood** burnt in the *Residential* sector.
8. You have now calculated the **total SO₂ emissions** from the **Transport (simple) and Combustion in Other Sectors** – check that the totals now appear in **Sheet 9 Summary sheet - Annual emissions of each pollutant by source sector** at the end of the workbook.
9. **Did you get the correct values?** See table below
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10. Go back to **Menu 1** then to **Sheet: 1.3.1 Nitrogen oxides (NO_x) - emission factors (kg/TJ)** and enter default EFs (for '*Transport*' and '*Combustion in Other Sectors*') as before.
11. Use tabs to go to **Sheet 1.3.3** where you will see the **Total NO_x emissions** have been automatically calculated. Again, check that the **NO_x emission totals** for '*Transport*' and '*Combustion in Other Sectors*' now appear in the **Summary sheet** at the end of the workbook.

12. **Did you get the correct values?** See table below.
13. **If you have time, repeat** step 10 for **CO, NMVOC, and ammonia (NH₃)**. (**Note:** For NH₃, there is no default emission factor offered for ‘*Civil aviation*’, so just leave blank).
14. **Save** your workbook.

From Summary sheet – Annual emissions of each pollutant by source sector in kt/yr.

Sector	Sub-sector	Total emissions (kilotonnes pollutant per year (kt/yr))				
		SO ₂	NO _x	CO	NMVOC	NH ₃
3. Transport	Civil Aviation (Simple--not used if Detailed used)	0.03	0.29	0.13	0.06	0.00
	Civil Aviation (Detailed)	0.00	0.00	0.00	0.00	0.00
	Road transport (Simple--not used if Detailed used)	0.17	0.79	1.26	0.25	0.00
	Road transport (Detailed)		0.00	0.00		
	Railways	0.00	0.00	0.00	0.00	0.00
	Navigation	0.00	0.00	0.00	0.00	0.00
	Pipeline transport	0.00	0.00	0.00	0.00	0.00
	Non-specified transport	0.00	0.00	0.00	0.00	0.00
4. Combustion in Other Sectors	Commercial/Institutional	0.00	0.00	0.00	0.00	0.00
	Residential	0.22	0.31	22.99	2.51	0.36
	Agriculture/Forestry/Fishing	0.00	0.00	0.00	0.00	0.00
	Non-specified "Other sectors"	0.00	0.00	0.00	0.00	0.00