Malé Declaration emissions inventory workshop Delhi, India, 2010

Exercise 6: Filling in dummy data for – *Industrial process emissions*

1. Continue working with the workbook '**Malé Inv workbook Version 3_test data.xls'** you saved at the end of Exercise 5b.

2. Go to **Menu 4** and then go to **Sheet: 2.1   Process (non-combustion) emissions from the production of mineral products.**

3. Enter **15000 kt** as *cement production (wet process kiln - uncontrolled)* leaving other cement categories blank and **1000 kt** for both brick manufacturing categories.

4. Enter relevant default EFs for all pollutants.

5. Go to **Sheet: 2.2   Process (non-combustion) emissions from the production of chemicals.** Enter **1000 t/yr** for *Urea (uncontrolled)* and *Sulphuric acid* only**.**

6. Enter relevant default EFs for all pollutants. For sulphuric acid – assume all production is for single contact process (i.e. EF is 17 kg/t).

7. Go to **Sheet: 2.3   Process (non-combustion) emissions from metal production.** Enter **100 kt/yr** for *Copper smelting* only. Enter default EFs for all pollutants except **SO₂** for which the EF should be adjusted for a **50% sulphur recovery rate** (Note 'f 'at bottom of sheet 2.3 explains).

8. Go to **Sheet: 2.4   Process (non-combustion) emissions from pulp and paper production.** Enter **15000 t** for *Kraft pulping* and then all the default EFs.

9. Go to **Sheet: 2.5   Process (non-combustion) emissions of NMVOC from alcoholic beverage manufacture.** Enter **100,000 hl** for **beer** and the default EF for NMVOC.

10. **Go to Sheet: 2.6   Process (non-combustion) emissions of NMVOC and PM₁₀ from food production.** Enter **10000** tonnes for *sugar (raw)* and then default EF for NMVOC only (no default EFs for PM given).

11. Go to **Sheet: 2.7   Fugitive emissions of particulate matter from major building construction activities.** Enter **2000** ha-months and the default PM₁₀ EF.

12. **Did you get the correct values?** See table below

13. **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	PM_{10}	$PM_{2.5}$
6. Industrial processes	Mineral products	4.50		0.00	0.00		240.94	70.04
	Chemicals	0.02	0.00	0.00	0.00	0.01	0.13	0.00
	Metals	106.00	0.00	0.00	0.00		23.00	19.30
	Pulp and paper	0.06	0.02	0.08	0.06		1.38	1.22
	Food and drink				0.10		0.00	0.00
	Major construction site activities (Fugitive PM only)						5.38	0.00