

Toolkit Break-Out Session: Case description

I'm aware and I want to do something! I have a **vehicle fleet** like this in Hungary:

VEHICLE TYPES	EMISSION RATING	Numbers	Kms driven/year	Fuel consumption L/year
Passenger cars	petrol without catalyst	10	22 000	195 000
	petrol with 3-way catalyst	64	960000	81 600
	diesel – old	12	120 000	8 400
	diesel with PM filter	0	0	0
Light trucks (pick ups, vans, large SUVs)	Pre Euro	123	2 214 000	298 890
	Euro I+II	356	6 586 000	?? Unknown ??
	Euro III+IV	2	42 000	5 040
	Euro V	0	0	0
Heavy trucks (Medium size lorries and bigger)	Pre Euro	28	336 000	63 840
	Euro I+II	45	562 500	104 063
	Euro III+IV	1	14 000	2 545
	Euro V	0	0	0
Motorcycles	4-stroke engines	5	45 000	900
	2-stroke engines	120	1 020 000	23 460

After some press which mentioned the 'dirty vehicles' used by my organization I have been asked to

(i) calculate what my company is actually contributing in terms of pollution and CO2 emissions and

(ii) come up with proposals on how to reduce our impact.

The **goals** set by my company are:

- Climate Change:
 - After 2 years your annual Greenhouse Gas (GHG) emissions should be reduced by 10%
 - after 5 years your annual Greenhouse Gas (GHG) emissions should be reduced by 20%
- Air pollution:
 - After 2 years your annual emission of air pollutants should be reduced by 20%
 - After 5 years your annual emission of air pollutants should be reduced by 50%

Your Role: MAKE A BASELINE AND PROPOSE ACTIONS

Recommendations & Tips

- If you have problems starting the Toolkit or the Inventory and Options Tool 18, check the Toolkit User Guide (the booklet the CD comes with one)
- Never use Cut & Paste in the Excel tool as it will destroy the formulas

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- Estimate if you don't know your fuel consumption. In the sheet it is described how you can do this
- Always check if your fleet data is realistic (even in this case!). For example, you can do this by checking the average fuel economy (km/L) or the annual mileage per vehicle (km/yr).
- In Hungary, diesel sulfur level is 10 ppm.
- In the inventory and options tool, first check all options in the different sheets. Then develop your own ideas to improve your fleet.
- Always read the applicable information tools (1-17) if you need more information!

Appendix: Help guide for filling in the fleet inventory

Fill in the numbers of vehicles, the kms driven, and the fuel consumption. If you don't have exact numbers then a good estimate will be enough.

If you don't know your vehicles EMISSION STANDARD according to the Euro standard then use the text below to approximate with the age of the vehicle.

Emission Standard	Year of introduction in the EU (Similar in the US and Japan)	Requirements.
Pre Euro	<1992	
Euro I	1992 - 1995,	Unleaded petrol
Euro II	1996 – 1999, 2005 in China	500 ppm diesel & petrol
Euro III	2000 – 2004, 2007 in China	350 ppm diesel, 150 ppm petrol
Euro IV	2005 – 2008	50 ppm diesel & petrol
Euro V	2009 – 2013	
Euro VI	2014 -	

Most developing countries in Africa and parts of Asia rely on a mix of imported vehicles and locally assembled vehicles.

Locally assembled are usually pre-Euro or Euro I standard due to lack of national emission standards.

Imported vehicles have the standard from the country they were imported. Emission standards in Asia are generally lagging behind EU, US and Japanese standards with 10 years (except China catching up). However, even if imported with a high emission standard, this standard soon deteriorates due to lack of effective I&M programmes and high sulfur levels in diesel. Anything beyond Euro I requires <500 ppm of sulfur in diesel which is currently not available in many developing countries (2000 up to 7000 ppm).

Examples:

1. Any vehicle bought and driven in an EU country year 2000 = Euro III
2. An truck assembled in Kenya the year 2000 = Euro I
3. Any truck made in EU year 2000 and imported to Kenya = Euro I due to high sulphur levels in diesel