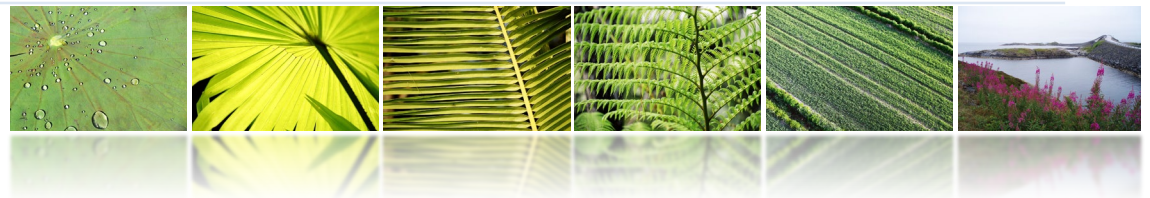United Nations
Statistics Division

Oil - Exercise

Leonardo Souza
Chief, Energy Statistics Section

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Diesel oil

- 500 kt of diesel oil were produced in a given year

- 3000 kt of diesel oil were imported in a given year
  - 100 kt were re-exported

- The balance of withdrawals and deposits to main storage units amounted to an increase of 15 kt in storage

- 575 kt used for transportation purposes, where:
  - 40 kt used to fuel ships going on international travel
  - 10 kt used for boats/ships on domestic trips
  - 525 kt delivered to buses, trucks, transportation companies

- 2700 kt were used to generate electricity
  - 1300 kt by the main electricity company
  - 1000 kt by independent power producers
  - 300 kt by companies whose main activity is not in the field of energy
  - 100 kt by households private generators

Exercises

- How to account for this info in energy statistics?

- Calculate supply and calculate use.
  - Do they match? If not, what could be the causes?

- 525 kt were delivered to buses & trucks: do you have info on storage (stock) changes in the transport companies?

- How to fill the energy balance with this info?
  - Note: Default calorific value of diesel oil: 43 MJ/kg

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Exercises – answers

- Calculate supply and calculate use.
  - Supply: 500 KT + 3000 kt – '
  - 40 - 100 kt – 15 kt = 3345 kt
  - Use: 535 kt + 2700 kt = 3235 kt

- Do they match? If not, what could be the causes?
  - They don't match by 110 kt (~3% of supply). Since they are measured independently, there may be discrepancies.
  - These discrepancies go in the "statistical difference"

- 525 kt were delivered to buses & trucks: do you have info on storage (stock) changes in the transport companies?
  - If you don't, consider all this quantity as consumed
  - If you do, take into account the stock changes (subtract from consumption and add to the field stock changes)

Exercise: electricity production from diesel

- Diesel used for electricity:
  - The 1300 kt of diesel used by the main electricity company generated 5200 GWh, but only 5000 GWh sent to grid
  - The 1000 kt of diesel used by IPPs generated 3500 GWh, where 3400 GWh sent to grid
  - The 300 kt of diesel used by other companies produced 900 GWh, where 800 GWh used by them (400 GWh commercial and 400 GWh industrial) & 100 GWh sent to grid
  - The 100 kt of diesel used by households produced 250 GWh, which were consumed by households.

	Gross prod.	Net prod.	Own use
Main elec. Co.	5200	5000	200
IPPs	3500	3400	100
Other Cos.	900	900*	0*
Households	250	250*	0*