Evaluating the importance of emissions and resource uses in the total environmental impacts caused by Swiss consumption

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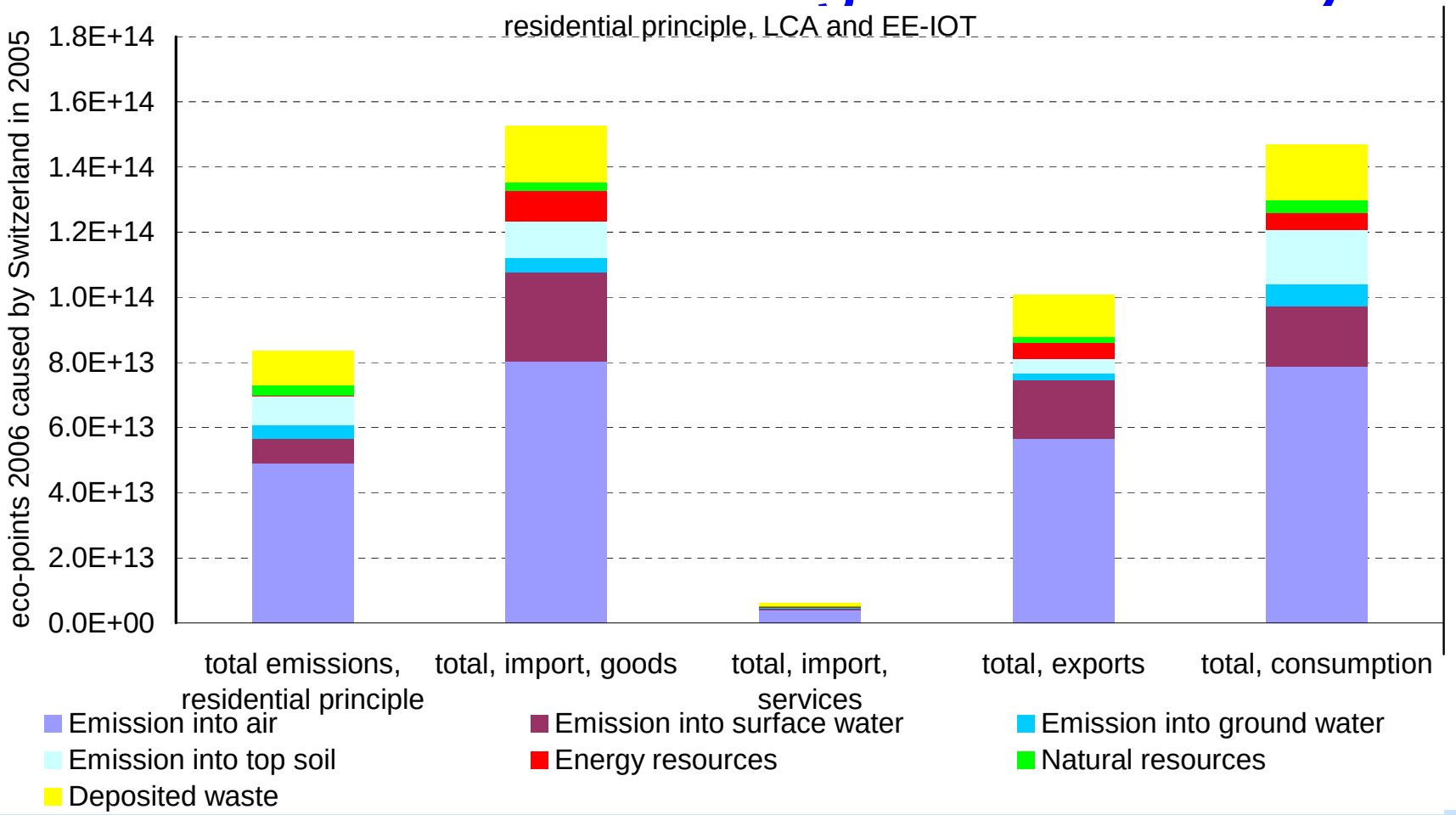
presentation of **preliminary results** to be published as
Jungbluth N., Nathani C., Stucki M. and Leuenberger M. (2010) Environmental impacts of production and consumption in Switzerland: environmentally extended input-output-analysis. ESU-services GmbH & Rütter+Partner, im Auftrag des Bundesamtes für Umwelt (BAFU), Bern, CH.
Die Inhalte dieser Präsentation geben die Meinung des Autors wieder, sie braucht sich nicht mit der Sichtweise des Auftraggebers zu decken

Swiss Discussion Forum LCA
Zurich April 20th 2010

Questions

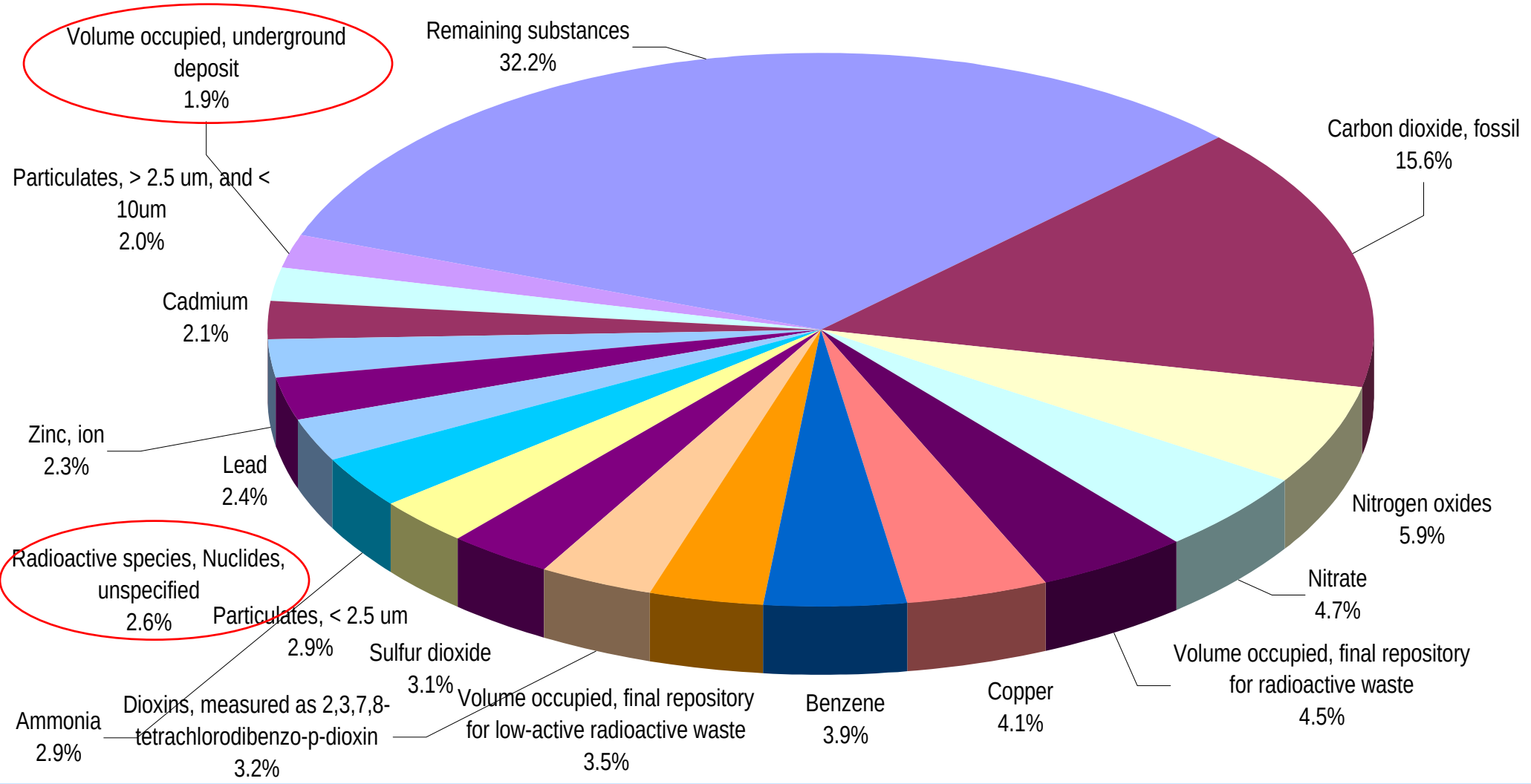
- Calculation of total environmental impacts caused by Swiss consumption
- What are important emissions in ecological scarcity 2006 and ReCiPe?
- How important are mineral resources?
- Are there differences between production sectors?

Total balance: Ecological Scarcity 2006



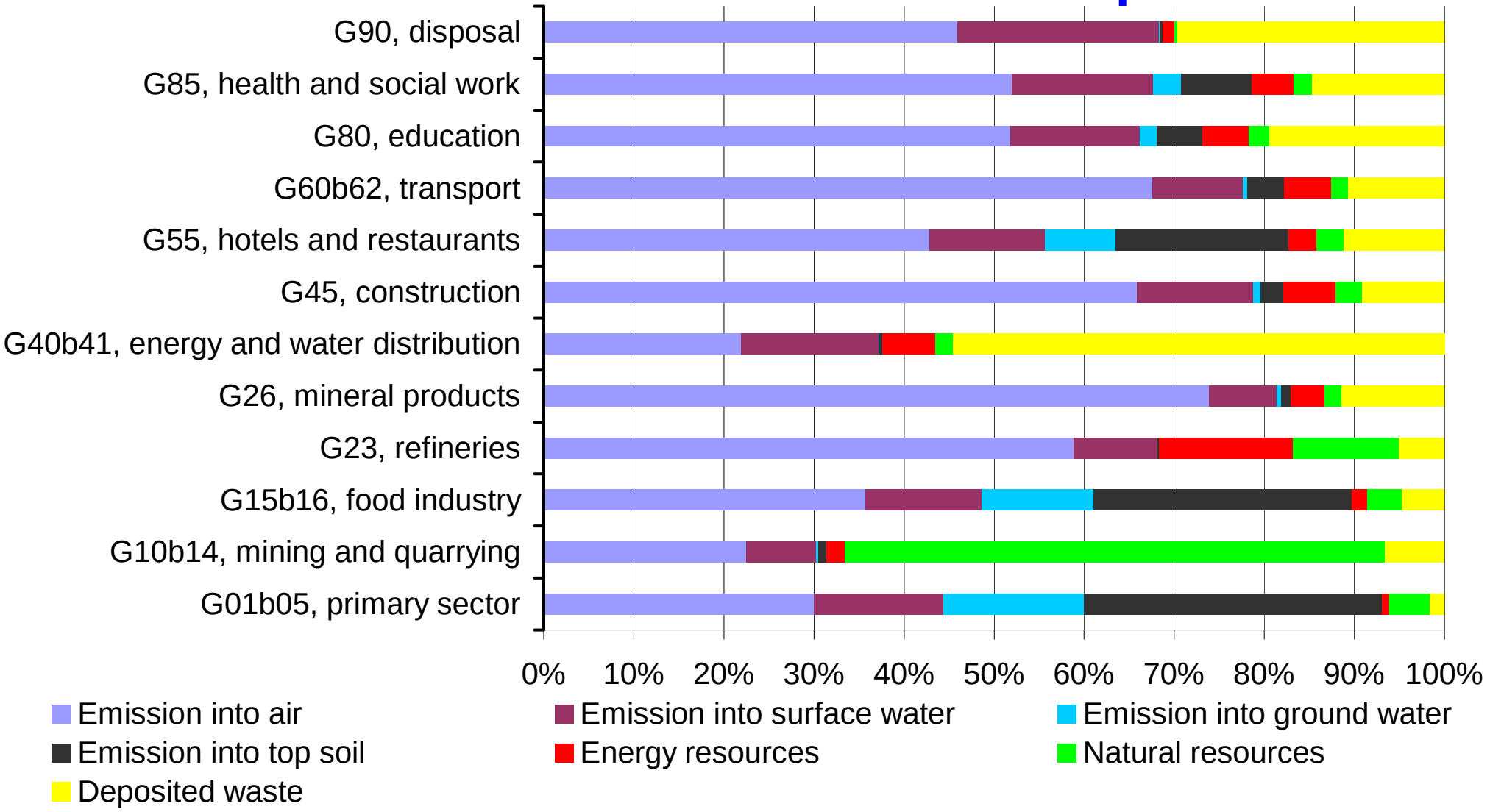
- Imports and exports are important for total environmental impacts
- Natural resources are not important in the total result

Total emissions by Swiss consumption (Ecological Scarcity - UBP)



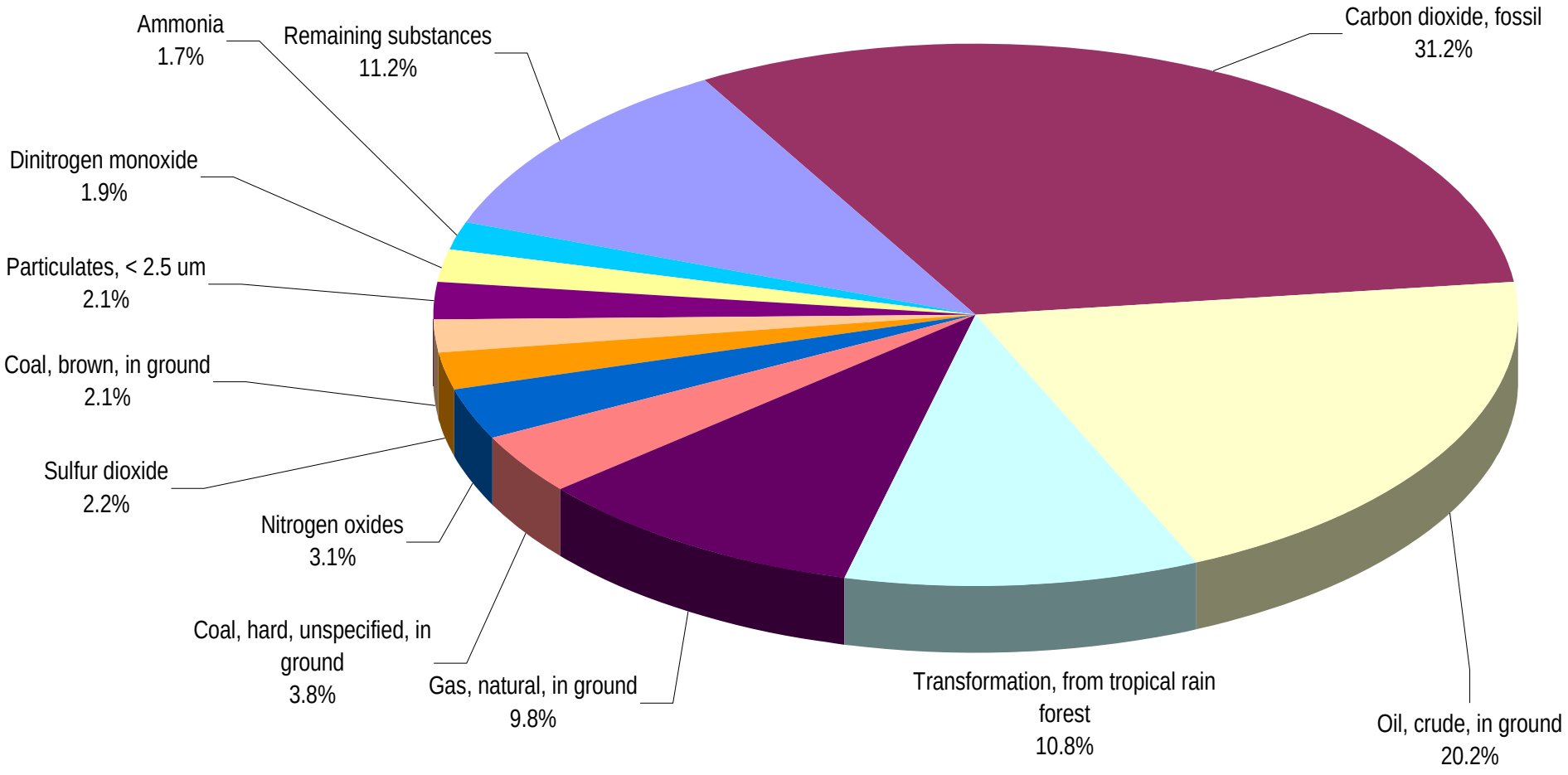
- Several emissions and resource uses must be considered

Production sectors examples



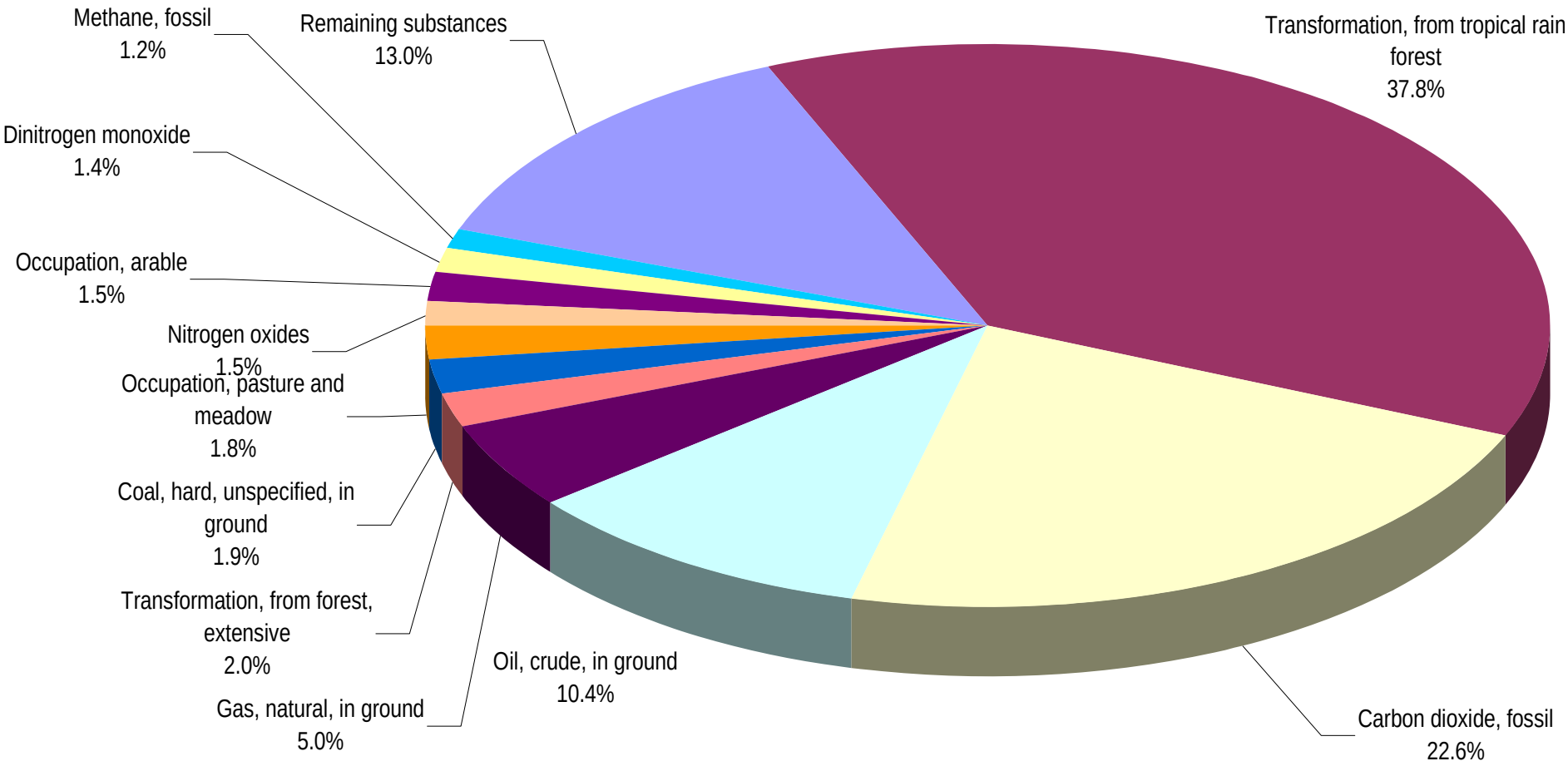
- Natural resources important in the mining sector, but not in construction

Total emissions by Swiss consumption (ReCiPe, World, H,A)



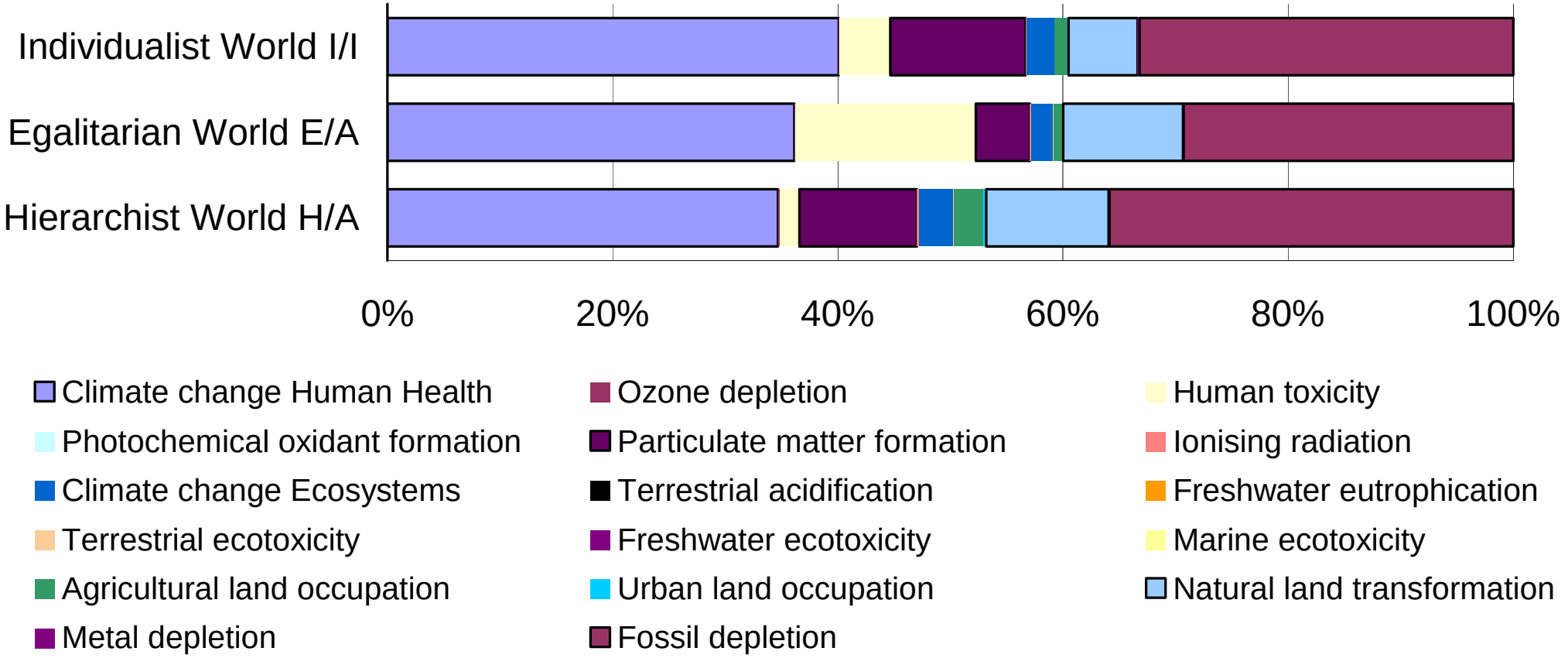
- CO_2 (1/3) and fossil resources (1/3) account for two third of impacts
- Imports of coffee, cacao, palm oil and soy beans cause deforestation (1/6)

Total emissions by Swiss consumption (ReCiPe, Europe, H,A)



- Imports of coffee, cacao, palm oil and soy beans cause deforestation (1/3)
- European normalisation not appropriate if imports are considered

Impact categories ReCiPe (World)

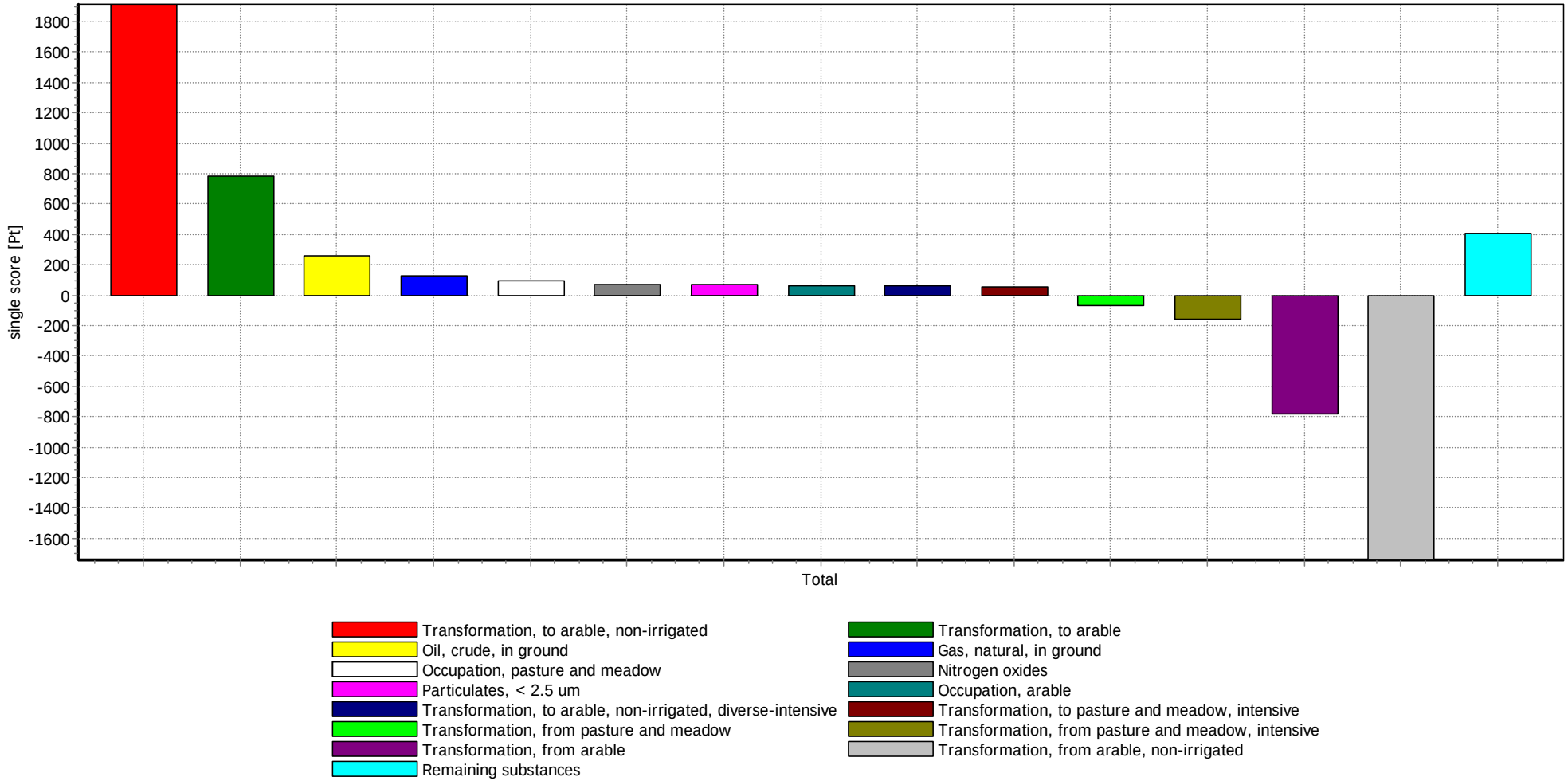


- Metal depletion of minor importance

Differences between ReCiPe and UBP

- ReCiPe dominated by fossil energy (resource aspect and climate change) and deforestation of rain forests
- Ecological scarcity shows a range of important issues and includes the scarcity of repositories for nuclear waste
- Mineral resources of little importance in both methods

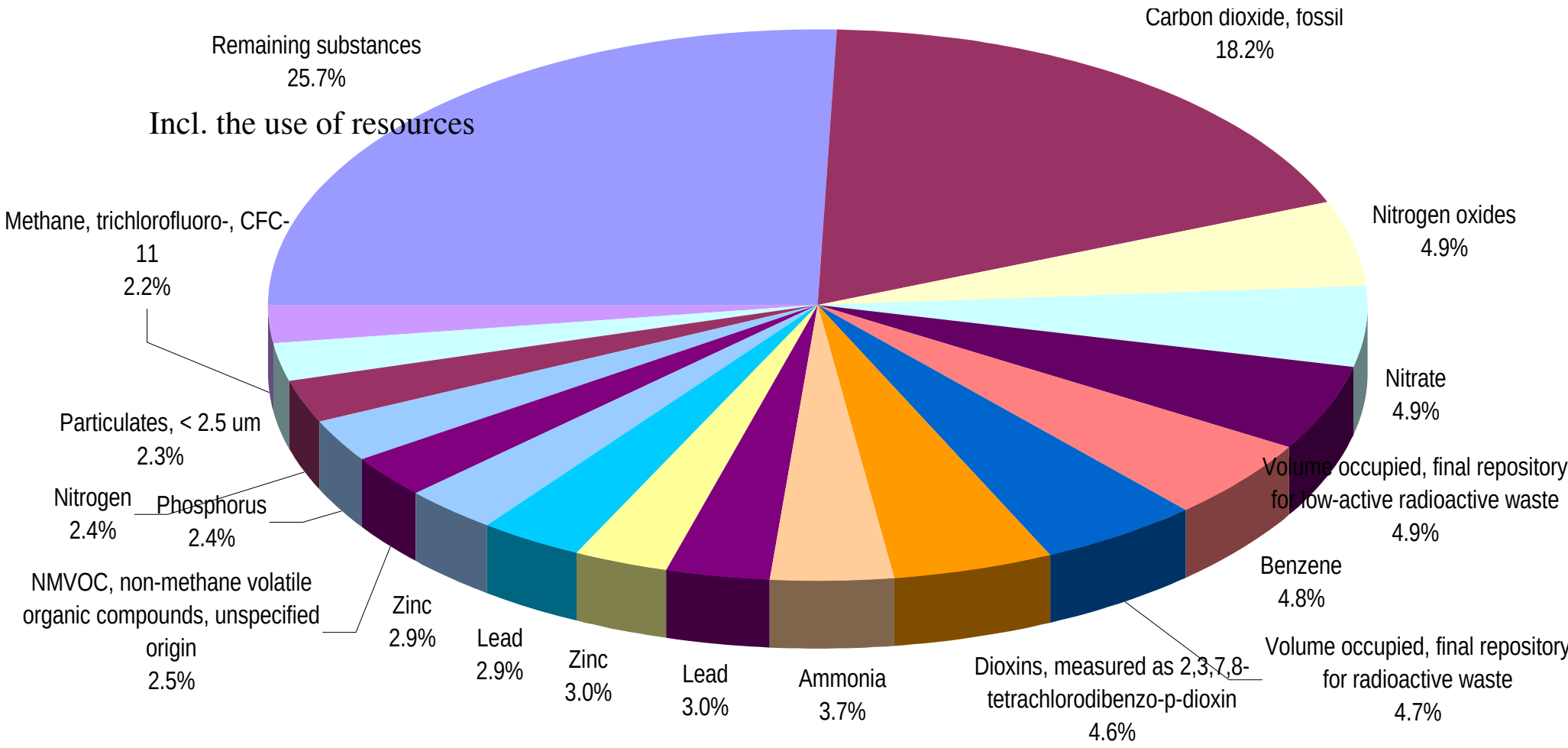
Total emissions by Swiss consumption (Eco-indicator 99, H,A)



Analysing 1.34E-7 a 'total, private consumption, 2005/a/CH U'; Method: Eco-indicator 99 (H) V2.07 / Europe EI 99 H/A / single score

- Land resources and fossil energy are important

Importance residential emissions (UBP)



- Several emissions and resource uses must be considered