RAMEA

REGIONAL ECONOMIC ENVIRONMENTAL ACCOUNTS

CASE STUDIES

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CASE STUDIES

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cambridge econometrics
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1.0 Introduction

RAMEA is an environmental accounting system which evaluates the economic and environmental performance of regions. It has been specifically designed to help regional policy-makers identify and quantify the potential environmental impacts associated with regional policies, based on best practice and robust regional data. It has been produced by a pan-European partnership comprising regions in Italy, the Netherlands, Poland and England, funded through the Interreg IIIc GROW programme.

The development of RAMEA is covered in greater detail in the RAMEA Construction Manual. This companion publication covers the Case Studies using RAMEA in each of the partner regions of:

- Emilia-Romagna, Italy
- Malopolska, Poland
- Noord-Brabant, Netherlands
- South East England, UK.

Copies of the RAMEA framework for each region are included in the Annex.

2.0 Regional Comparison / Benchmarking

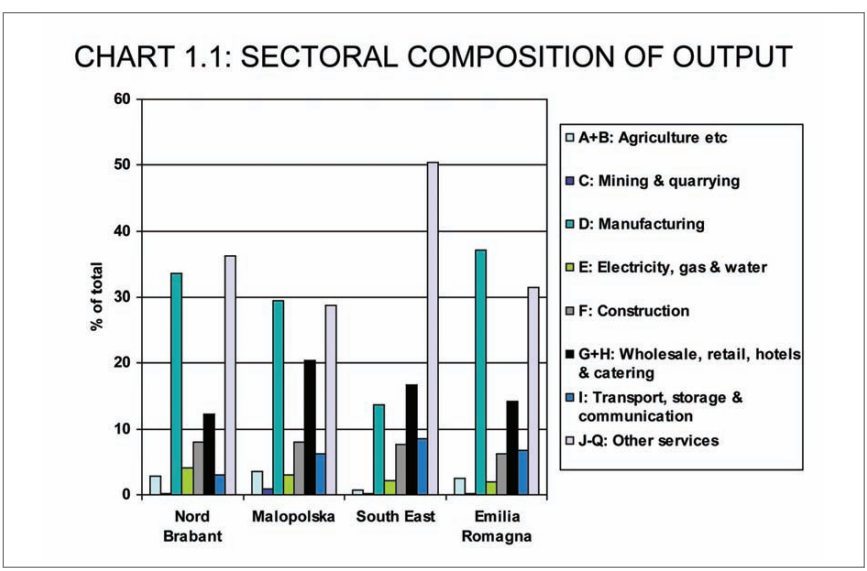
This section provides a brief comparison of the air emissions from the four regions involved in the project, based on the RAMEA applications for each region and nation in 2003.

Comparison of economies

Chart 1.1 compares the broad sectoral output of each regional economy.

The chart shows that agriculture accounts for around 3% of output in each economy except South East England, where it accounts for less than 1% of total output.

Manufacturing accounts for around 30-40% of output in all economies except South East England, where it only accounts for around 14%, reflecting the bias of the South East England economy towards services.



The proportion of output attributable to electricity, gas and water supply is similar across the regional economies, at 3-4%. Construction also accounts for a similar proportion of output across the different economies, at 6-8%.

Wholesale distribution, retailing and hotels & catering accounts for the highest proportion of output in Malopolska, at 20%, compared with 12-17% in the other regional economies.

Transport, storage & communications ranges from 3% of output in Noord Brabant to 9% in South East England.

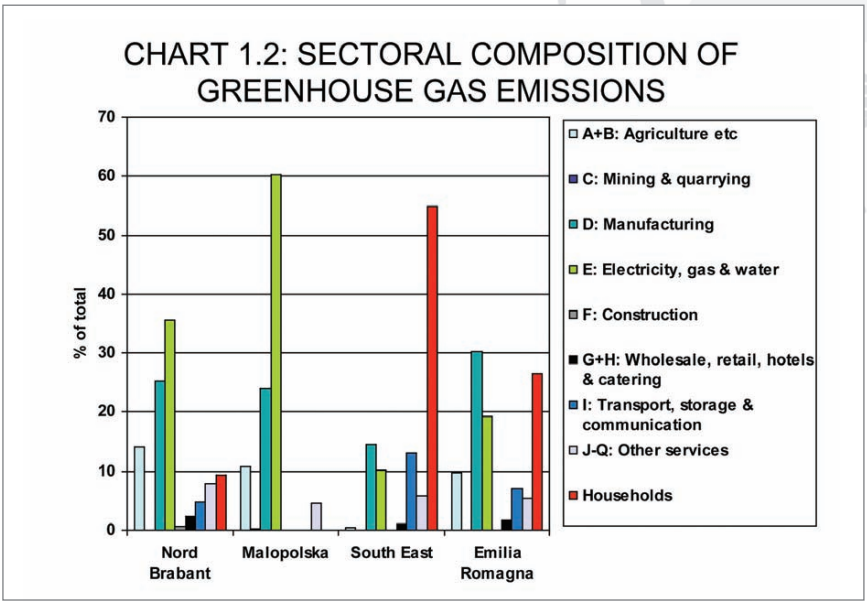
The greater significance of services in South East England is reflected in 'other services', which includes financial services, business services, public administration, education and health, and accounts for more than 50% of output in South East England but only 25-35% in the other regions.

Comparison of Greenhouse Gas Emissions

Chart 1.2 compares emissions of greenhouse gases (CO_2 equivalent) by broad sector across the regions. The data for Malopolska are not directly comparable with the other regions as they omit emissions from a number of sectors, including households.

The chart shows that agriculture accounts for more than 10% of greenhouse gas emissions in Noord Brabant, despite the sector accounting for less than 3% of output.

Among the regions that can be compared, Emilia Romagna has the highest proportion of greenhouse gas emissions from manufacturing, although, at 30%, this is lower than the proportion of output produced by manufacturing in the region.

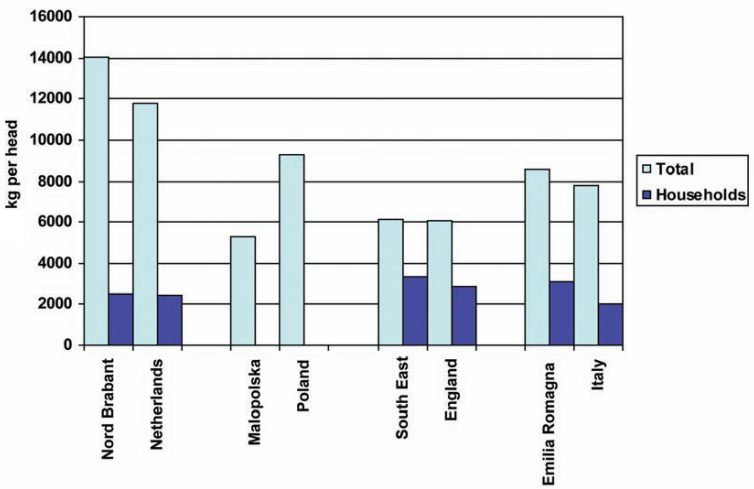


As would be expected, electricity, gas and water supply in the regions accounts for a far higher proportion of greenhouse gas emissions compared to output. In Noord Brabant, emissions from this sector account for 36% of all greenhouse gas emissions in the region. In Emilia Romagna the sector accounts for 19% of all greenhouse gas emissions, and in South East England 10%. Clearly, emissions from this sector are dependent on the location and type of power stations.

Although households account for less than 10% of greenhouse gas emissions in Noord Brabant, they are estimated to account for more than 25% in Emilia Romagna, and more than 50% in the South East of England. A number of influences are relevant here, including fuel mix and size of population, as can be seen in the next section.

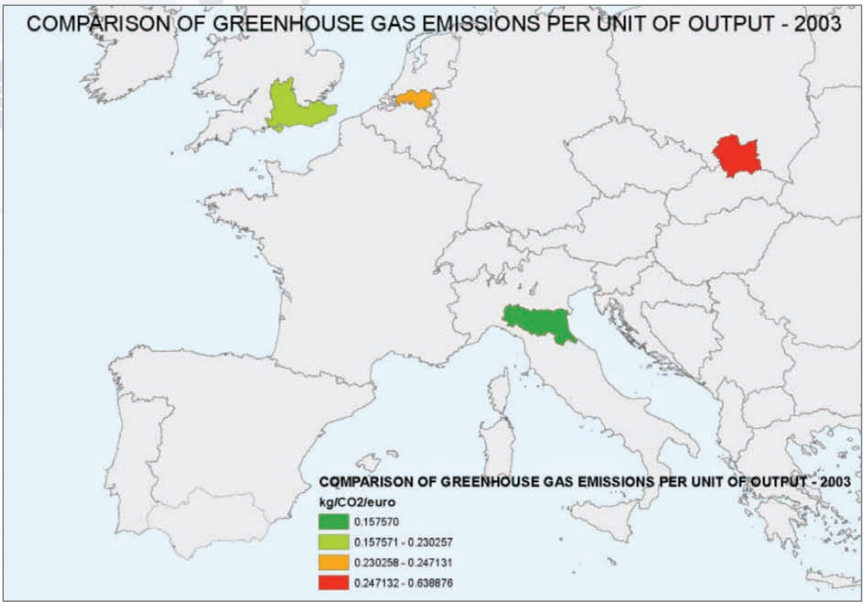
Chart 1.3 compares greenhouse gas emissions per head in the regions and their respective national emissions. This shows that total emissions per head in both Noord Brabant and the Netherlands as a whole are estimated to be higher than in the other regions and countries (although, as mentioned above, the data for Malopolksa and Poland are incomplete, so their total emissions cannot be compared).

CHART 1.3: GREENHOUSE GAS EMISSIONS PER HEAD

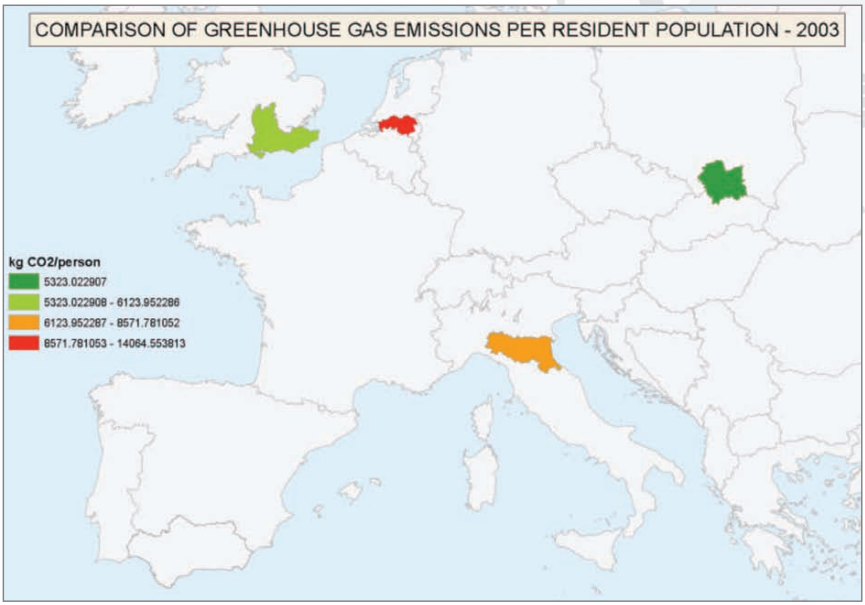


Total greenhouse gas emissions per head in South East England are similar to the average for England as a whole, and are relatively low compared to the other areas in the study. In Noord Brabant and Emilia Romagna total greenhouse gas emissions are estimated to be higher than the average for their respective countries.

However, whereas the household emissions for South East England were almost twice those of Emilia-Romagna, the emissions per head from households South East England, England and Emilia Romagna are all much closer. Overall Italy appears to produce the lowest household emissions per head at 2,000 kg. These variations per capita may be due to a combination of differences such as climate and fuel mix.



The chart above highlights the differences between the regions in terms of the emission of greenhouse gases from economic activity per unit of output.



The chart above highlights the differences in household emissions per head of population.