

Figure 62. Distribution of the CO<sub>2</sub>eq of the direct inputs to the Finnish publishing sector.

The climate impacts of the direct inputs are distributed quite evenly. It is noteworthy that in the Publishing sector's carbon footprint, Printing accounts for 11% of the direct inputs. Transport, paper from abroad, electricity and business services make the greatest contributions (Figure 62). The carbon footprint profile of Printing is naturally very different. Paper manufacturing dominates, followed by chemicals (Figure 61).

## 10.2 Impacts of printed products consumed by households in 2005 compared to the overall climate impacts of consumption

Statistics Finland investigates the expenditure of Finnish households annually. The results are presented by the classification of COICOP (Classification of Individual Consumption by Purpose). The environmental impacts of the consumption of households can be assessed by the ENVIMAT model based on the same classification. In COICOP, printed products are included in the category of Newspapers, books and stationery (CO95). All the other categories used in the

## 10. Carbon footprint of print products and their role in Finnish consumption

ENVIMAT model can be seen in Figure 63. The ENVIMAT model includes several environmental impacts, but only the climate impacts related to consumption of paper products are presented and discussed in this report.

The results describe actual individual consumption, abbreviated as AIC, including consumer goods and services purchased by households, in addition to services provided by non-profit institutions and general government for individual consumption, for example, health and education services. In other words, AIC covers all goods and services actually consumed by households (Eurostat). Housing (28%), foodstuffs (16%) and car driving (13%) caused the major part of the environmental impacts of actual individual consumption in Finland in 2005 (Figure 63).

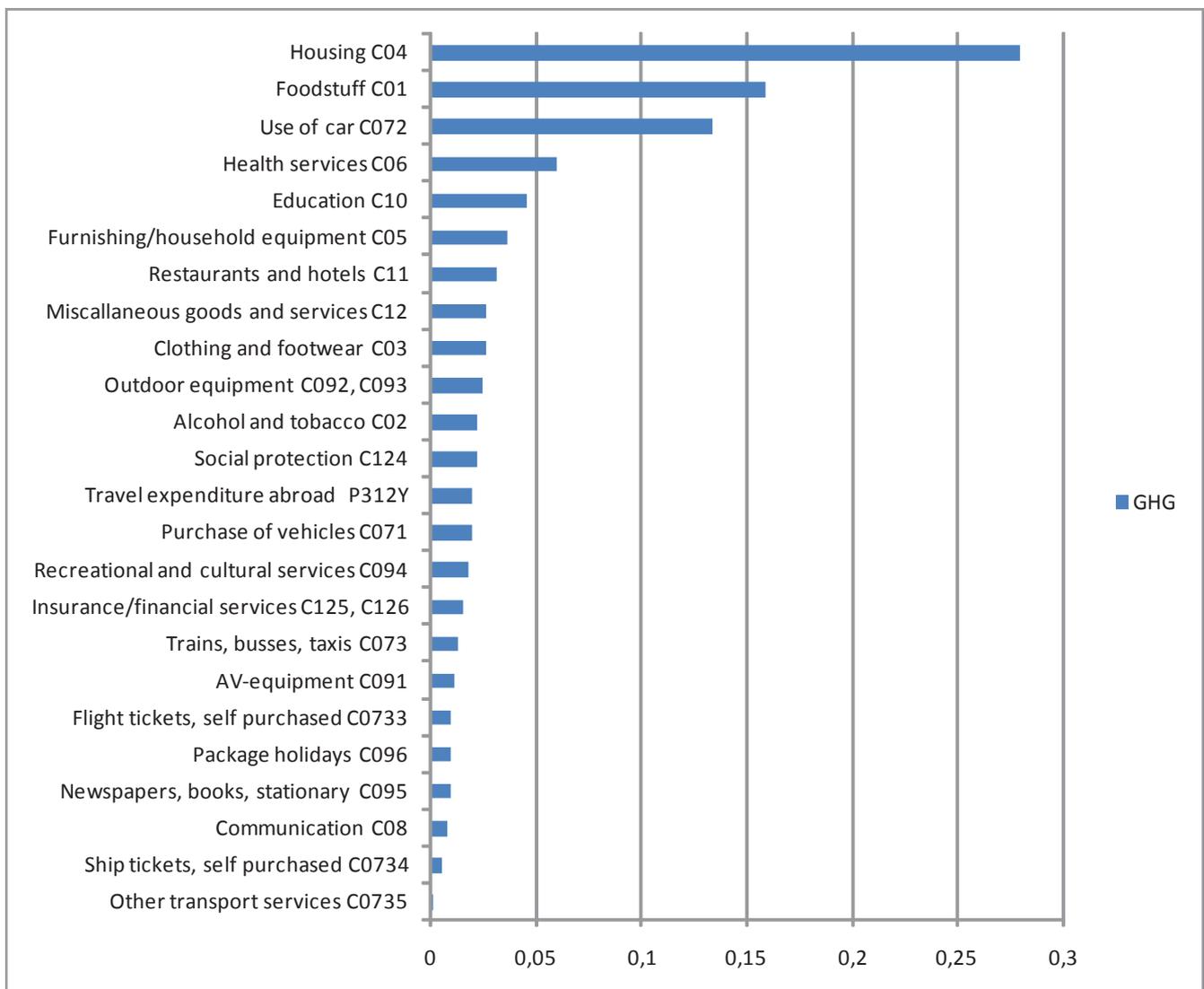


Figure 63. Climate impacts (GHG emissions) of actual individual consumption according to commodities in Finland in 2005. The values are normalized so that the value of the total impact is 1 (Seppälä et al. 2009).

## 10. Carbon footprint of print products and their role in Finnish consumption

Focusing on printed products, Finns spent EUR 1 331 million on purchases of newspapers, books and stationery in 2005. It is 1.29% of the entire consumption expenditure (Table 32). The contribution of these purchases to climate impacts is slightly lower, being 0.89%. A comparison of the impacts of the category CO95 to certain other categories, such as Operation of personal transport equipment (CO72) and Recreational and cultural services (CO94), shows that it has lower impacts than these other categories. The results are presented in Table 32.

Table 32. The climate impact of consumed newspapers, books and stationery by households and expenditure compared to some other COICOP categories in 2005. (COICOP = Classification of Individual Consumption by Purpose).

COICOP	CO <sub>2</sub> eq. 1000 tonnes	Consumption expenditure M€
<b>CO95 Newspapers, books, and stationery</b>	<b>471</b>	<b>1 331</b>
Contribution to actual individual consumption expenditure of households	0.89%	1.29%
<b>CO72 Operation of personal transport equipment</b>	<b>7 072</b>	<b>4 623</b>
Contribution to actual individual consumption expenditure of households	13.4%	4.5%
<b>CO94 Recreational and cultural services</b>	<b>921</b>	<b>4 312</b>
Contribution to actual individual consumption expenditure of households	1.7%	4.2%

### 10.3 Conclusions

An environmentally extended input-output model, such as the ENVIMAT model, provides results for the final products at an aggregated level including several similar products, and thus does not indicate results for a single product. However, the ENVIMAT model can assess the magnitude of the contribution of printed products as a group via printing and publishing to the overall climate impact caused by the Finnish economy. The contribution of these two sectors totalled 0.54% in 2005: 0.39% for Publishing and 0.15% for Printing.

From the private consumption viewpoint, the highest contributors to climate impacts are housing (28%), foodstuffs (16%) and car driving (13%). The share of newspapers, books and paper products (stationery) is not very significant in this broad perspective. Only about 1% of the GHG emissions caused by the consumption of Finnish households originate from newspapers, books and paper products.