

Computing footprints

Technology, Information Technology



Computing Footprints

In week 6 class, Prof. Norris discussed the two articles we have read and demonstrated how a spreadsheet will be helpful to compute our footprints, involving use of bottom up life cycle assessment data.

One of the articles had the main punch line that three sectors of economy viz., housing, transport and food together account for 50% of household spending on the average, and at the same time account for 70-75% of climate change and often other impacts. The rest of the paper is more on methodology side, essentially supporting this finding. This finding is valid for different countries, different cities, and even different continents. Further, it is also valid across different methodologies and in particular across the two methodologies of LCA, viz., input and output base study, which is also called the ‘ top down’ approach and process life cycle inventory data base study, termed the ‘ bottom up’ approach. While both methodologies are for life cycle assessment, top down study is more popular.

Emphasizing the differences between top down and bottom up studies, Prof. Norris explained that the top down approach uses input and output data based on consumption. Within the input and output data base study, we compare purchasing categories. Top down study is based on uniform data source, uniform coverage and approach, while the bottom up study has to combine data from different studies and methodologies. Secondly, the bottom up study relates

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strictly to inventory portion of LCA. The model we create to generate data of resources consumed and pollutants released covers the full supply chain. It

neither relates to the impact assessment nor shows how we can translate the flow of pollutants or resources into a summary measure of impact.