

Book Journeys Project: The Story So Far

1 Background

In early 2021, the IPG set up a Sustainability Taskforce. It brought together stakeholders from across the publishing industry—including publishers, printers, distributors, wholesalers and booksellers—to seek ways to reduce the industry's environmental impacts.¹

The Taskforce commissioned sustainability consultants [Carnstone](#) to analyse the sources and levels of greenhouse gas (GHG) emissions and waste in six book journeys from their printer to the end-user. The research focused on the post-production movement of books, because this is where publishers have a high degree of influence.

2 About the research

The six book scenarios were chosen to represent different journeys in the downstream book supply chain after printing. They were:

- **Case study 1a and 1b:** A delivery of 5,000 shrink-wrapped books from a printer to a supermarket. This case study also analysed the same volume of books sent to the same supermarket via two distribution centres.
- **Case study 2:** A delivery of three hardbacks from a printer to an independent bookshop in a rural UK town via a distribution centre.
- **Case study 3:** A single high-price academic title, delivered from a printer to a high street retailer via a distribution centre.
- **Case study 4:** A single illustrated book printed in China, ordered online and transported to a customer in the UK, via international shipping routes and two distribution centres in the UK.
- **Case study 5:** Five print-on-demand paperback books delivered from a printer to a library, via a distribution centre and a library supplier.
- **Case study 6:** Seven copies of a paperback trade title delivered from a printer to a high street retailer via a distribution centre and the retailer's own distribution hub.

¹ Members of the Sustainability Taskforce are: Vicky Ellis, Clays; Meryl Halls, Booksellers Association; Colin James, Penguin Random House Distribution; Amanda Ridout, Boldwood Books; Bridget Shine, IPG; Kate Stilborn, Blackwell's; Nigel Wyman, Gardners.

Each case study measured GHG emissions and waste in areas including movement between printer, distributor and retailer; packaging waste; customers' journeys to buy the books; and end-of-life treatment. Data was provided by stakeholders and gaps or queries were addressed by Carnstone, including through interviews that provided a better understanding of delivery decisions and waste processes.

3 Key findings

3.1 GHG emissions

- Across the six case studies, average GHG emissions were 53 grams CO₂e. To put this in perspective, the average for the manufacturing of a book is 4,900 grams CO₂e. See *Figure 1*.
- GHG emissions varied widely according to the delivery and transportation methods involved. Case study 4—in which books are printed in China and shipped to the UK—recorded 183 grams CO₂e per book. Case study 3—in which books are transported from a UK printer to a retailer via a single distribution centre—recorded just 8 grams CO₂e per book.
- This shows that the overwhelming majority—over 99%—of GHG emissions come from two transportation stages: delivery and return. See *Figure 2*.

3.2 Waste

- Waste, from the packaging of products and any books returned, does not contribute a significant amount to total GHG emissions. Across the six case studies, total packaging waste totalled just 2.9kg. This is largely due to high levels of re-use and recycling of cardboard and wood pallets.
- Plastic shrink wrap accounted for the majority of packaging waste, weighing 2.5kg across the six case studies. Waste was particularly high in Case study 1, in which a large volume of books are transported in shrink wrap.

4 Conclusions

After discussing Carnstone's report, the Sustainability Taskforce agreed that reducing GHG emissions should be focused at transportation stages. The group acknowledged the scale of the challenge to reduce emissions here—not just for the publishing industry, but for the global transport and logistics industry.

The Taskforce also agreed that publishers and distribution partners had begun to tackle packaging waste, especially through new packaging techniques and greater recycling of materials—though it also identified areas for further improvement.

Conclusions from the research project were presented at the [IPG's 2021 Autumn Conference](#). They were also covered by [the Bookseller](#) and [BookBrunch](#).

5 Targets

Conclusions from the research have led to five targets for meaningful change.

- **Target 1: Efficient transportation.** Consolidate vehicle loads, reduce the number of stops in a book's journey and ensure the most direct delivery routes. Targets: 75% and 90% full load deliveries by 2030 and 2050 respectively.
- **Target 2: Greener logistics.** Electrify fleets and achieve zero-carbon transport in the UK. Targets: Suppliers to complete transport vehicle reviews, all vehicles to use Euro 6 engines by 2025, and 50% and 100% fleet electrification by 2030 and 2050 respectively.
- **Target 3: Better packaging.** Eliminate single-use plastic packaging. Targets: Find alternatives to shrink-wrap and other single-use plastics by 2025. Cut 75% and 100% of single-use plastics by 2030 and 2050 respectively.
- **Target 4: Localise printing.** Print locally (in the market of sale) where possible and move a high percentage of colour printing for UK and European markets from Asia to Europe. Targets: Scope potential to establish expertise and technology in key markets for localised colour and novelty printing, and agree set percentages for that printing by 2025; end air freight where possible, or create a robust carbon offset model, by 2030.
- **Target 5 Reach net zero.** All companies in the book industry to halve emissions by 2030 and be net-zero operations by 2050 at the latest.

6 Next steps

The IPG wants to hear **members' views** on the research and the five targets that have been set by the Sustainability Taskforce. We also want to get feedback from partners in printing, distribution and retail.

The IPG is now working on a **toolkit** that will help businesses reflect on their environmental impacts in the supply chains and take steps towards the five targets.

We are now moving on to a **second phase** of our research, with two areas of focus. We plan to investigate the ways that printed books are handled at the end of their life, and how we can reduce GHG emissions and waste at this stage; and to explore how publishers might engage with customers on sustainability.

IPG, July 2022

Figure 1: GHG emissions of six book journeys

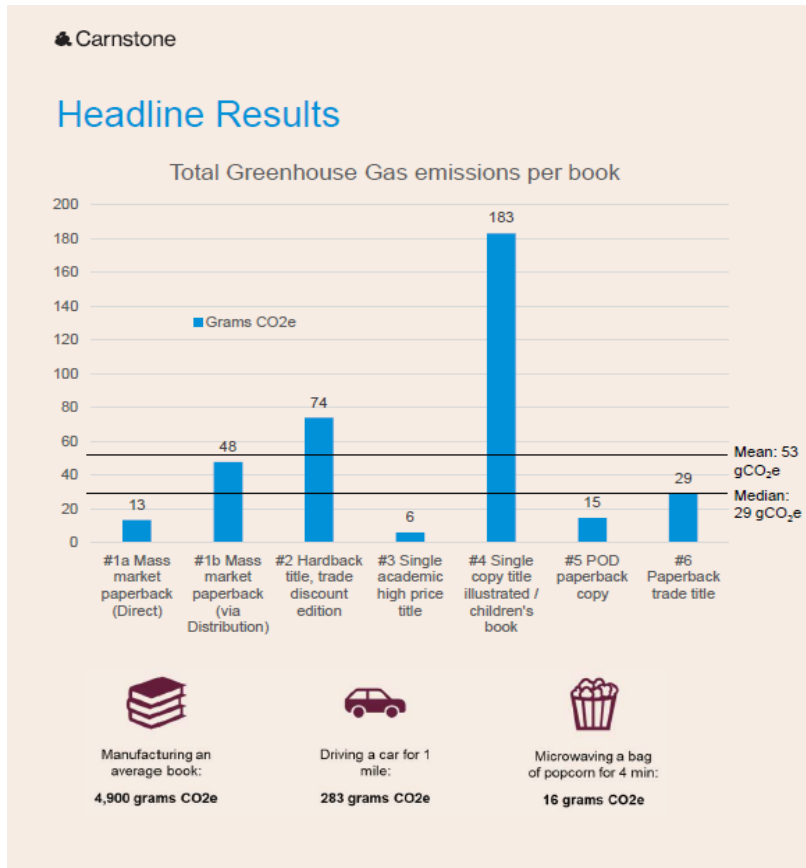


Figure 2: Breakdown of GHG emissions by journey leg

