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 direct 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 directly to a consumer 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.

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[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 Autumn Conference on Wednesday 3 November. 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 stops in a book's journey and ensure the most direct routes. Targets: 75% and 100% full load deliveries by 2030 and 20250 respectively.

- **Target 2: Greener logistics**. Electrify fleets and achieve zero-carbon transport. Targets: 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: cut 75% and 100% of single-use plastics by 2030 and 2050 respectively.

- **Target 4: Localise printing**. Move a high percentage of colour printing *for UK and European markets* from Asia to Europe. Targets: 75% and 100% of colour printing for these markets done in the UK and Europe by 2030 and 2050 respectively; end air freight or create a carbon offset model by 2030.

- **Target 5 Reach net zero**. All companies in the book industry to be net zero operations by 2040.

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, and to that end we are seeking to host **a cross-industry event** in early 2022.

The IPG is now starting work on a **toolkit** that will help businesses in their overall quest to be net zero by 2040. We plan to share this with members in early 2022.

We are also 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 end consumers' journeys.

The first follow-up to the project's findings and targets is an online meeting of the IPG's **Sustainability Action Group** at 10am on Friday 10 December. All members are welcome.

IPG, November 2021

Figure 1: GHG emissions of six book journeys

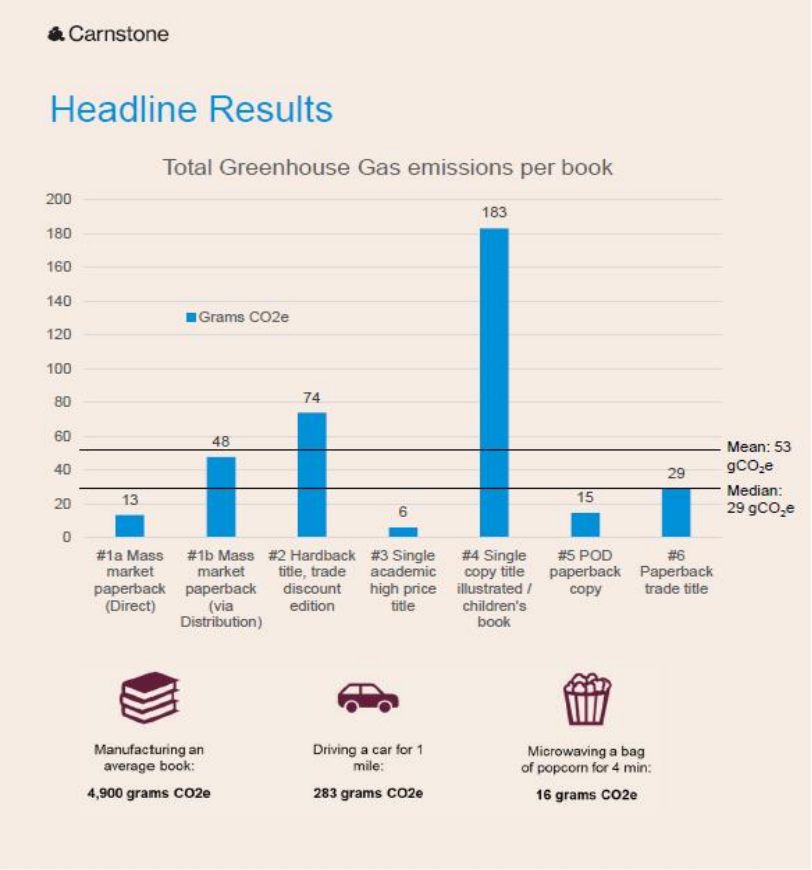

Figure 2: Breakdown of GHG emissions by journey leg