Climate action in the printing and publishing industry – best practices

With the increased global focus on climate change issues, many actors in the paper, printing and publishing sector have started to act and improve their climate mitigation efforts. Several different projects and initiatives are supporting the industry's actors in measuring their greenhouse gas (GHG) emissions. However, a substantial lack of consistency and alignment around climate action in the industry still prevails. The aim of this document is to align the industry on best practices regarding corporate climate action. This is a living document which will be updated as required as new best practices and regulations emerge.

What constitutes ambitious climate action?

Ambitious climate action is based on a holistic perspective of a company's GHG emissions. Therefore, this priority list should be followed when a company wants to use best practice:

1. GHG accounting – establishing a robust climate footprint
2. Ambitious yet realistic emission reduction targets
3. Emission reduction measures
4. Offsetting unavoidable emissions with high-quality projects

Increased public awareness and media coverage will most likely lead to increased pressure from different stakeholders; authors may prefer to work together with publishers that have a strong focus on sustainability and reducing emissions, while certain customers may prefer to buy books that are climate neutral. Lastly, even though the impact of the publishing and printing industry is small compared to other industries, it is nonetheless important that every company engages in climate action.

GHG accounting – establishing a robust climate footprint

The 'Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard' ('GHG Protocol') by the World Resources Institute and the World Business Council for Sustainable Development is the most widely used and accepted standard for corporate GHG emission inventories.

The GHG Protocol gives guidance on the following aspects:

- The GHGs to be included (i.e. all six gases that are included in the Kyoto Protocol[1]): these GHGs and their different global warming potential are summarised in the unit (metric) tonnes carbon dioxide equivalents (tCO_2e).
- Organisational system boundary (equity, operational, or financial control approach): for the publishing/printing industry, it can be assumed that the control approach will be

[1] Carbon dioxide, CO_2; methane, CH_4; nitrous oxide, N_20; hydrofluorocarbons, HFCs; perfluorocarbons, PFCs, and sulfur hexafluoride, SF_6

the most applicable approach in most cases – i.e. covering all activities over which the entity has control.

- Emission sources: include all relevant direct emissions from mobile and stationary combustion as well as refrigerants leakage (scope 1) and indirect emissions from purchased electricity, heating, cooling, and steam (scope 2). Use preferably market-based approach (residual mix) instead of location-based (grid-average) when accounting for the emissions of purchased electricity. The market-based approach differentiates between the residual mix and renewable electricity while the location-based approach only applies the grid-average.
- According to the GHG Protocol, scope 3 is an optional scope. Most companies assess their scope 3 emissions to a certain degree as in most cases it constitutes the largest emission source. It is best practice to include at least the most material scope 3 emission categories because procurement often has some degree of choosing suppliers with a lower emission intensity. Oftentimes, scope 3 emissions sources are more difficult to calculate and require increased collaboration with other stakeholders in the value chain; it is acceptable to iteratively improve the calculation approach in order to Improve the data quality.

Ambitious yet realistic emission reduction targets

Based on the results of the GHG accounting, emission hotspots should be identified, and appropriate emission reduction targets defined. To set credible and ambitious reduction targets, an alignment with the targets set out in the Paris Agreement is best practice. Via the Science Based Targets (SBTs), the Science Based Targets initiative (SBTi) offers a credible framework and validation process for corporate reduction targets.

For larger corporations, SBTs are the most widely accepted approach for setting mid-term reduction targets (2025–2035). The SBTi will soon publish a methodology on how to set credible net zero targets for long-term reduction (2040–2050).

For independent small and medium-sized enterprises (SMEs), the SBTi offers a simplified target-setting process that only covers scope 1 and 2 emissions. Based on the fact that scope 3 is the largest emission source, measuring scope 3 emissions and setting internal reduction targets should nonetheless be carried out.

Emission reduction measures

For publishers and printers, the majority of emissions are caused by paper production, energy consumption during printing processes, and transportation. Focusing on these three emission sources will be a crucial aspect of any emission reduction plan and requires strong collaboration throughout the supply chain. For most companies, the majority of the emission reduction potential will be found in scope 3. Based on this assessment, actors in the publishing and printing industry should focus on the following aspects to reduce their emissions:

- Procure paper with low GHG emissions: the Transition Pathway Initiative (Transition Pathway Initiative, n.d.) calculated that 0.43 tCO_2e per tonne of pulp, paper, and cardboard should be the goal for 2025 in order to keep the long-term temperature increase below 2 degrees. The Paper Profile documents provide good information on the CO_2 emissions of different paper brands.

- Switch to renewable energy: procuring renewable electricity is a relatively uncomplicated way of reducing emissions by a large amount, especially for electricity-intensive processes. However, switching from fossil fuels to renewable energy can often be a bit more challenging as changes in equipment are needed, e.g., when switching from natural gas heating to district heating, or buying electric cars to replace petrol- or diesel-driven cars. The energy sector plays a key role in reducing global GHG emissions (International Energy Agency (IEA), 2021). Therefore, replacing fossil energy with renewable energy should be done by every company.
- Transport is usually the most complex area for implementing emission reduction measures. Keeping transport distances low is generally a good first step to reduce emissions. However, transporting 1 tonne of books from Italy to Sweden causes more emissions than transporting 1 tonne of books with a containership from China to Sweden – so road transport is really the mode of transport that should be kept to low distances.
- Further emission reductions can be exploited by applying these best practices:
    - Format: select a format that is economical from a sheet-format/cut-off perspective. This can reduce paper waste, costs, and emissions.
    - State in your imprint how the product can be re-used or recycled.
    - Try to extend the production schedule. This allows for co-transporting the paper with other shipments from the paper mill and gives more flexibility with delivery dates.

As climate change becomes a more prominent issue, external pressure could lead to a cascading effect when paper producers, printing facilities, transport companies and publishing companies further prioritise climate change in their business decisions. Therefore, the best practices laid out in this document should contribute to an improvement in the sector's climate action by improving collaboration in the value chain as well as facilitating data collection and enhancing data quality.

Offset unavoidable emissions with high-quality projects

Once a company has accounted its GHG emissions, implemented an emissions reduction plan and reduced its emissions as much as possible, it should offset its unavoidable GHG emissions. This should be done through high-quality and third-party verified emission reduction projects in accordance with international standards and programmes such as the United Nations' Clean Development Mechanism, REDD, Verra and Gold Standard.

These standards are widely recognised as the most rigorous by experts and policymakers. They include criteria to ensure that the purchasable carbon credits (also known as Verified Emission Reductions, or VERs) meet the highest criteria to safeguard they are real, measurable, unique, independently verified, permanent and additional. These standards all have external registries that allow the carbon credits to be tracked using their serial numbers from origination to retirement.

References

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