

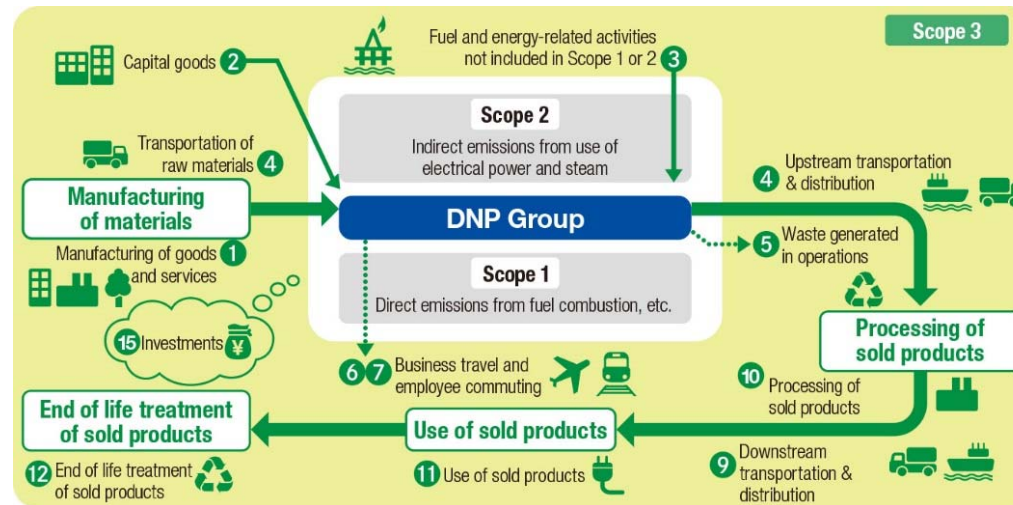
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Dai Nippon Printing Co., Ltd.

Companies' approach

① Background and purpose of accounting

A general picture of GHG emissions management across the entire supply chain



- As we believe it's important to reduce GHG emissions across the product life cycle, we have accounted not only GHG emissions from our production phase, but also indirect emissions (Scope 3) throughout our supply chain and implemented reduction countermeasures. As a result, GHG emissions have been getting reduced every year since FY 2010.
- To enable these efforts for emissions reduction, keeping track of and understanding GHG emissions across our business activities are key and essential, and therefore from 2014 our supply chain emissions accounting was based on the DNP Group as a whole, including overseas activities.
- Based on the accounting results, we will promote emissions reductions throughout the supply chain.

② Utilization of accounting results

- By establishing certain accounting methods for the DNP Group's overall emissions across the entire supply chain, including overseas business and production sites, we will be able to confirm the quantitative changes in emissions over time. In addition, we will be able to clarify the problems in data accuracy and thereby improve it.
- With respect to handling a wide range of products, we will be able to learn accounting methods for emissions for the entire supply chain, and will aim to create a database for volume data, etc.
- By gradually refining our emissions data for the entire supply chain for our overall corporate activities, we will be able to collect (carbon footprint) data by product group, customer, and individual product, so that we will be able to cope with customer's disclosure requests which are likely to increase in the future.

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Dai Nippon Printing Co., Ltd.

	Companies' approach
③ Benefits of accounting	<ul style="list-style-type: none"> Through the above usage methods, we will be able to clarify reduction potential, refine accounting methods, and cope with customer requests for disclosing data.
④ Internal system for accounting	<ul style="list-style-type: none"> Data is collected from the relevant departments and divisions across the company and the associated companies, and then calculated by the Environmental Department. Responsible dept. and company collecting data for each Categories Procurement : Category 1,4 Accounting : Category 2 Environment : Category 3,4,5 Labor : Category 6,7 Administration : Category 9,11,12 the associated companies : Category15
⑤ Efforts to reduce supply chain emissions	<ul style="list-style-type: none"> We are making efforts to reduce emissions by promoting "green" procurement, development and sales of environmentally friendly products, and using more efficient means of transportation as a cargo owner. In particular, for Category 1 emissions from the "procurement of materials," which represent more than 50% of our total GHG emissions, we will be looking to reduce these emissions as a priority target area.
⑥ Issues in supply chain emissions accounting	<ul style="list-style-type: none"> Because many Dai Nippon Printing products are intermediate products, it is difficult to account for our emissions from use (Category 11) of those products we have sold downstream, so only emissions from the domestic use of PET bottle preforms (i.e. energy used to cool products made into PET bottles and sold as drinks) were accounted for. With respect to the processing and use of other parts, either their part of the overall weight of the finished product is small or no energy is used in processing and use, so these were not included.
⑦ Other	<ul style="list-style-type: none"> To ensure the validity and transparency of the accounting, we received third party verification.

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Dai Nippon Printing Co., Ltd.

Category	Accounting methods ※Accounting period : April 2016 – March 2017	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> Materials procurement amount (in both weight and value terms) (The priority should be weight over value) 	<ul style="list-style-type: none"> CFP Basic, and other available DB 3EID(Use CFP before 3EID)
Category 2: Capital goods	<ul style="list-style-type: none"> Amount of money needed to purchase land/buildings and machinery 	<ul style="list-style-type: none"> 3EID
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> Fuel, electricity and steam energy usage 	<ul style="list-style-type: none"> Emission factor DB* CFP Basic DB (for overseas)
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> Cargo owner shipments (ton-km) and estimated supplier shipments (ton-km) (*) (* Scenarios should be set up for load capacity, load percentage and shipment distances to estimate the ton-km based on purchased weight. For items for which purchased weight is not know, the unit price per weight for known items should be used. The weight will be estimated by the purchased amount.) 	<ul style="list-style-type: none"> CFP Basic DB
Category 5: Waste generated in operations	<ul style="list-style-type: none"> Weight of waste by type and disposal method 	<ul style="list-style-type: none"> Emission factor DB*
Category 6: Business travel	<ul style="list-style-type: none"> Estimated travel expenses for business trips and nearby travel (*), nearby transportation expenses paid, days spent in accommodations (* Set up scenarios for typical travel routes by means of transportation, and calculate from the number of times used.) 	<ul style="list-style-type: none"> Emission factor DB*
Category 7: Employee commuting	<ul style="list-style-type: none"> Commuting expenses paid by means of transportation 	<ul style="list-style-type: none"> Emission factor DB*
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> Energy consumed for leased assets (calculated in scope 1 and scope 2) 	<ul style="list-style-type: none"> —
Category 9: Transportation and delivery (downstream)	<ul style="list-style-type: none"> Estimated shipment ton-km (*), sales volume and sales prices by type for five types of products, including paper printed products. (* Set up scenario for each type of accounting subject based on the CFP system PCR.) 	<ul style="list-style-type: none"> CFP Basic DB
Category 10: Processing of sold products	<ul style="list-style-type: none"> Not accounted for because the sold products were not processed or because their percentage of the final product was very small. 	
Category 11: Use of sold products	<ul style="list-style-type: none"> Estimated electric power used domestically to refrigerate drinks in PET bottles. (* Estimated based on PCR.) 	<ul style="list-style-type: none"> CFP Basic DB
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> Amount of waste discharged, by disposal method, for five types of products including paper printed products. (* Estimated based on PCR.) 	<ul style="list-style-type: none"> CFP Basic , and other available DBs
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> Not included in the scope of calculations, because there are no relevant activities 	
Category 14: Franchises		
Category 15: Investments	<ul style="list-style-type: none"> GHG emissions of the associated companies (Equity-method affiliate) 	
Other	<ul style="list-style-type: none"> Not included in the scope of calculations, because it is an option category 	

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Dai Nippon Printing Co., Ltd.

Supply chain emissions : Accounting results

- DNP Group's GHG emissions profile across the entire supply chain, including key sites overseas

