

1 Hokuetsu Kishu Paper Co., Ltd.

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Companies' approach

□ Background and purpose of accounting

- Environmentally friendly management has been one of our ideals, and we have actively worked on preserving the environment by changing to environmentally friendly fuels and installing highly efficient facilities. We can obtain greater benefits, if we can implement these measures not only by our company but also throughout our supply chain.
- We attempt to reduce emissions more efficiently, by identifying GHG emissions throughout the supply chain, and its reduction potentials.
- Demands for environmental information from consumers and investors is expected to increase in the future, so we need to disclose information more concisely and clearly. We believe that Scope 3 emissions accounting is a needed tool, in order to disclose this kind of information.

□ Utilization of accounting results

- We utilize the results on GHG emissions reductions activities throughout the supply chain.
- In the future, we will account GHG emissions for each product, and aim for a more detailed emissions reductions.
- We use the results to disclose them on our corporate reports and websites, to respond to information disclosure demands, and to answer to external company assessment questionnaires.

□ Benefits of accounting

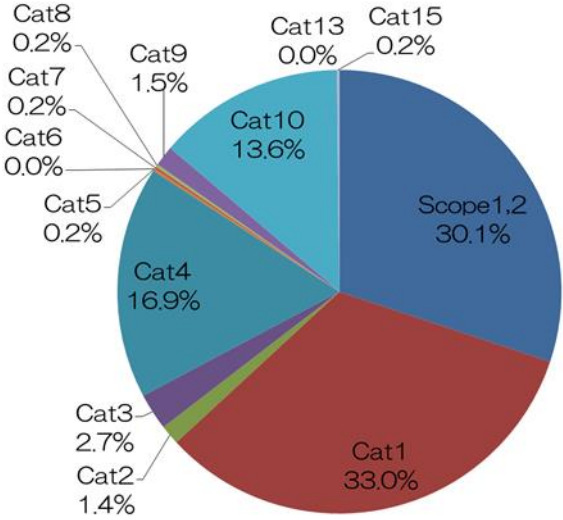
- We can clarify the categories of which GHG emissions were achieved.
- We can assess the secular changes of the emissions for each category.
- Scope 3 emissions accounting is recognized as a standard accounting tool domestically and overseas, so a highly transparent information disclosure is possible.

□ Internal system for accounting

- The environment department collects activity data from each division and accounts the emissions.
- Categories 1,4 are collected from the procurement division, Categories 2,10,15 are collected from the accounting division, Categories 3,5 are collected from the environment division, Categories 4,8,9 are collected division, and Categories 6,7 are collected from the affairs and personnel division.



Companies' approach	
<p>Efforts to reduce supply chain emissions</p>	<ul style="list-style-type: none"> Category 1: Purchased goods and services represents 33% of our overall emissions. We believe that we need to change from the chemicals that we use to a more environmentally friendly alternative product, in order to reduce emissions. Category 4: Transportation and delivery (upstream) represents 17% of our overall emissions. We have been considering activities such as promoting modal shifts to transportation modes of railways and ships, of transportation modes (e.g. enlarging or reducing fuel of ships). We will proceed on further reducing Scope 1 and Scope 2 emissions by reducing energies and enhancing productivity in facilities.
<p>Issues in supply chain emissions accounting</p>	<ul style="list-style-type: none"> The usages for our products are diverse, so it is difficult to identify the details of our emissions at the downstream of our supply chain. Accounting of emissions from the downstream are mainly based on scenarios, so the emissions will largely differ, depending on the scenario. Therefore, we realize that we cannot compare our Scope 3 emissions with other companies.
<p>Other</p>	<ul style="list-style-type: none"> We will further enhance the accuracy of our accounting, by focusing on the categories that realistically have reduction potential. The accounting results are disclosed every year, through are corporate reports and environmental journals. (http://www.hokuetsu-kishu.jp/en/ir/ir_library.html)



Accounting Results (FY 2016)



Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> Procurement amount of materials 	<ul style="list-style-type: none"> MOE DB*¹, CFP - DB*²
Category 2: Capital goods	<ul style="list-style-type: none"> Procurement amount of capital goods 	<ul style="list-style-type: none"> MOE DB*¹
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> Amount of electrical and steam energy used 	<ul style="list-style-type: none"> MOE DB*¹
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> Fuel consumption related to cargo owners' transportation Purchased volume and shipping volume (not related to the cargo owner) 	<ul style="list-style-type: none"> Fuel method, ton - kilometers method
Category 5: Waste generated in operations	<ul style="list-style-type: none"> Emissions per waste type and disposal method 	<ul style="list-style-type: none"> MOE - DB*¹
Category 6: Business travel	<ul style="list-style-type: none"> Number of employees 	<ul style="list-style-type: none"> MOE - DB*¹
Category 7: Employee commuting	<ul style="list-style-type: none"> Transportation expenses paid 	<ul style="list-style-type: none"> MOE - DB*¹
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> Total floor space of leased property 	<ul style="list-style-type: none"> Emission factor per leased property
Category 9: Transportation and delivery (downstream)	<ul style="list-style-type: none"> Shipping amount of the relative products 	<ul style="list-style-type: none"> Ton - kilometers method
Category 10: Processing of sold products	<ul style="list-style-type: none"> Sales volume 	<ul style="list-style-type: none"> Emission factors per processing method
Category 11: Use of sold products	<ul style="list-style-type: none"> Not applicable because there were no emissions during usage 	<ul style="list-style-type: none"> —
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> There were zero emissions because it was carbon neutralized 	<ul style="list-style-type: none"> —
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> Total floor space of leased property 	<ul style="list-style-type: none"> Emission factor per leased property
Category 14: Franchises	<ul style="list-style-type: none"> Not applicable because there are no franchises 	<ul style="list-style-type: none"> —
Category 15: Investments	<ul style="list-style-type: none"> Emissions from investee companies 	<ul style="list-style-type: none"> —
Other	<ul style="list-style-type: none"> Not calculated (too small) 	<ul style="list-style-type: none"> —

※1 "Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain, (Ver. 2.3)"

※2 "Carbon Footprint Communications Program Basic Database, Ver. 1.01"