

## Companies' approach

### □ Background and purpose of accounting

- We have been aggressively involved in eco-friendly projects since our founding, centered on "printing," and have been defining our original environmental activities as "Eco-communications." As part of those activities, we started LCA activities for our products in 2011. Within those activities we have also been aggressively involved in CFP activities and received high praise from our customers. This, in turn, has led us to enlarge our scope to include reducing the environmental load of our products and organizational LCA based on the GHG Protocol.
- Because it is not mandatory for our company to report to CDP, we have not been involved in Scope 3 emissions accounting because of any obligations. We have decided to disclose our environmental information aggressively because we felt that finding an original approach would help us in the future, and also from a social point of view and as an element that can have a new impact on our business. From an objective viewpoint, we have been promoting supply chain emissions accounting, in order to consider new directions for our company.

### □ Utilization of accounting results

- The accounting results will be used in many ways. We will include them in our integrated reporting for the next business period, and we will post it on our company's web site to disclose the information to our stakeholders.
- From this fiscal year, we utilized the results for voluntary responses to CDP surveys to receive an objective evaluation.
- We will also differentiate ourselves from our competitors by further reinforcing our efforts in environment related problems.
- We will need to respond to requests for disclosure assuming that anything can happen in business in the future.

### □ Benefits of accounting

- With regard to our overall activities, by collecting volume and monetary data we can present figures that are not biased towards individual products, so that when we introduce our product loads we can respond to requests for proposals with a firm foundation.
- In order to be able to present firm expenses against reduction results by comparing categories with high loads and categories with low loads, we are finding our direction for the future by reducing costs and by analyzing differences over time.

### □ Internal system for accounting

- The IR/CSR Planning Promotion Office has total control over the entire accounting process.
- Data on Category 1 is collected from the Purchasing Department, for Categories 2 and 6 from the Accounting Department, for Category 7 from the General Affairs Department, and for all of the categories from the ISO Promotion and Environmental Promotion.

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<p><b>□ Efforts to reduce supply chain emissions</b></p>	<ul style="list-style-type: none"> <li>We have accounted for our emissions under 14 Categories (excluding investments). As in past years, about 70% of our total emissions come from Category 1. Of our Category 1 emissions, paper represents 95%, the highest, and therefore environmental consideration for paper becomes all the more important. To reduce the environmental impacts of our paper products, we have been promoting the use of “forest thinning-derived paper” that enables the use of forest thinning generated in Gifu Prefecture, the papermaking by Gifu-based paper companies, and then the print processing by our company being a printing company also based in Gifu, in addition to our recycled paper and FSC (Forest Stewardship Council)-certified paper products.</li> <li>In regard to the digital printer, which was officially introduced in 2013, emissions from category 2 temporarily increases due to procurement of capital goods, but as a mechanical performance, spare paper is hardly needed, so it is capable of reducing supply chain emissions from category 1 and category 4, due to continuous operation.</li> </ul>
<p><b>□ Issues in supply chain emissions accounting</b></p>	<ul style="list-style-type: none"> <li>Because at present it is difficult to acquire data from our suppliers with respect to Category 1, we decided to make the calculations by using emission factor. However, because there is only one kind of emission factor for paper, using environmentally-friendly products will not be reflected in the numbers. As a result, promoting environmental considerations for paper has its weaknesses.</li> <li>Because Category 4 involves procurement of materials from a wide range, we adopted the waterless printing PCR scenario of the CFP communications program. However, we hope to improve the accuracy of accounting in the future because the movement distance may seem longer than the actual numbers depending on the interpretation.</li> <li>Because collecting data for consigned production (at subcontractors) is difficult, we have not included it in the calculations at this time. For the future, we ourselves will set emission factors and consider ways to improve accuracy.</li> </ul>
<p><b>□ Other remarks</b></p>	<ul style="list-style-type: none"> <li>From this fiscal year, we participated in the Ministry of Environment’s support programs on calculating and disclosing emissions in the past years, and utilizing the accounting results. We calculated reduced emissions including the reduced emissions in the supply chain due to digital printers. We publicized the effects in another chapter of this website.</li> </ul>

Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> <li>Weight, and monetary value, of main raw materials and other materials procured</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of the Environment DB*</li> </ul>
Category 2: Capital goods	<ul style="list-style-type: none"> <li>Procurement amount of capital goods</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of the Environment DB*</li> </ul>
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> <li>Fuel, electricity and gas energy usage</li> </ul>	<ul style="list-style-type: none"> <li>CFP Basic, and other available DBs</li> <li>Ministry of the Environment DB*</li> </ul>
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> <li>Estimated in ton-kilometers by using the printing matter PCR scenario based on waterless printing of the CFP communications program that includes transportation for the procurement, consignment and disposal phases.</li> </ul>	<ul style="list-style-type: none"> <li>CFP Basic, and other available DBs</li> <li>Emission factor per fuel used</li> </ul>
Category 5: Waste generated in operations	<ul style="list-style-type: none"> <li>Amount of waste discharged, by type</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of the Environment DB*</li> </ul>
Category 6: Business travel	<ul style="list-style-type: none"> <li>Amount of travel and transportation expenses paid</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of the Environment DB*</li> </ul>
Category 7: Employee commuting	<ul style="list-style-type: none"> <li>Amount of commuting expenses paid</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of the Environment DB*</li> </ul>
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> <li>Not relevant</li> </ul>	
Category 9: Transportation and delivery (downstream)	<ul style="list-style-type: none"> <li>Estimated in ton-kilometers by using the printing matter PCR scenario based on waterless printing of the CFP communications program that includes transportation for the procurement, consignment and disposal phases.</li> </ul>	<ul style="list-style-type: none"> <li>CFP Basic, and other available DBs</li> <li>Emission factor per fuel used</li> </ul>
Category 10: Processing of sold products	<ul style="list-style-type: none"> <li>Because most of the products sold are finished products, we are assuming that there is no processing at a later time.</li> </ul>	
Category 11: Use of sold products	<ul style="list-style-type: none"> <li>We consider emissions when using paper products to be nil.</li> </ul>	
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> <li>Waste amounts are calculated by using the printing matter PCR scenario based on waterless printing of the CFP communications program.</li> </ul>	<ul style="list-style-type: none"> <li>CFP Basic, and other available DBs</li> </ul>
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> <li>Not relevant</li> </ul>	
Category 14: Franchises	<ul style="list-style-type: none"> <li>Not relevant</li> </ul>	
Category 15: Investments	<ul style="list-style-type: none"> <li>Because we are not relevant to the applied enterprise provided in the basic guideline</li> </ul>	
Other	<ul style="list-style-type: none"> <li>Not calculated because it is an option</li> </ul>	

\* Official name "Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (ver.2.0)"

## Sun Messe's Scope 3 emissions

