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	Company thinking
☐ **Background and purpose for accounting**	• Sumitomo Forestry Group operates broad range of businesses derived from wood, the core element of our products, which include forest management, timber/building materials trading, construction of wooden houses, etc.. So, when we consider environmental impacts, the coverage is not limited to ourselves but reaches entire supply chain, including suppliers and customers. As for CO_2 emissions, we also take actions from lifecycle viewpoint, such as development of LCCM houses. We perform Scope 3 accounting with the purpose to expand the scope and enhance our actions, as our contributions to slow global warming. • Through Scope 3 accounting for business areas that are important for both our company and stakeholders, we assess potentials for emission reductions, while using the result as a reference to develop mid- to long-term emission reduction goals for our group.
☐ **Utilization of accounting results**	• To identify areas with potentials to cut emissions over the supply chain (categories with large emissions) and emission points we should focus on, in order to achieve further reductions. • To disclose accounting results through our website, CSR reports and external surveys by such as the CDP.
☐ **Advantages of accounting**	• As described above, by identifying emission points that we should focus on, contributions can be made effectively in volume (i.e., emission reductions) to slow global warming.
☐ **Internal accounting organization**	• With data collected from each division and group company, the head office (Environmental Management Department) performs accounting collectively.

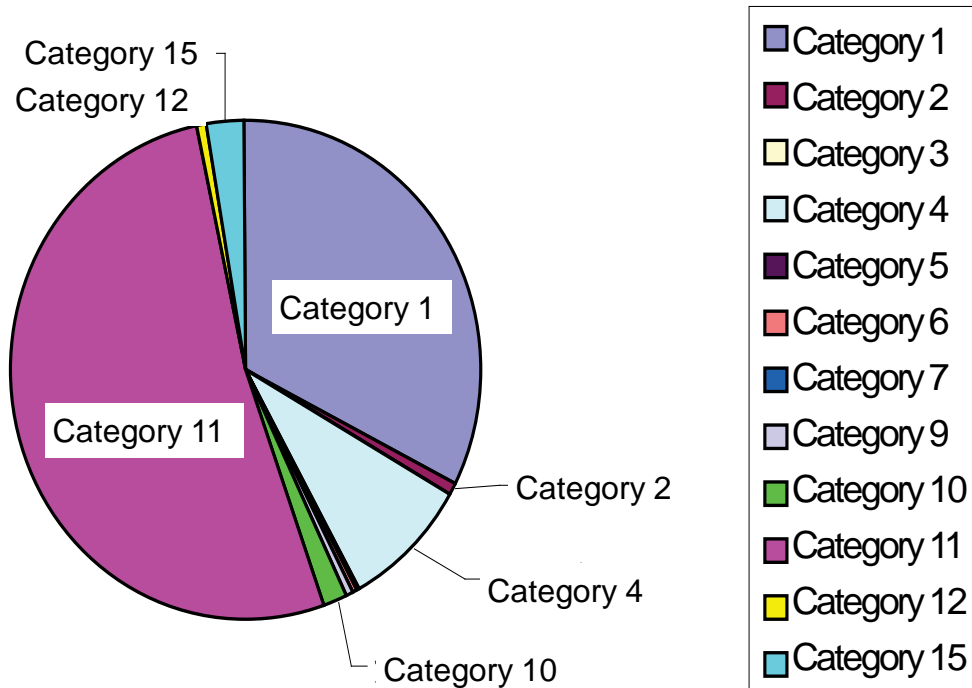|	Company thinking
☐ **To reduce supply chain emissions**	• We will discuss to set a goal in mid-term plan for the group's environmental management. • We proceed development of lifecycle carbon minus (LCCM) house, which controls to curb lifecycle CO2 emissions to below zero.
☐ **Tasks to account for supply chain emissions**	• As our business reaches various stages from upstream to downstream in a lifecycle, it is hard to differentiate our emissions between Scope 1 & 2 and Scope 3. • In the Timber & Building Materials Division, which handles various types of products in various commercial distribution, it is rather difficult to obtain emission data on downstream transportation and processing of sold products. • For setting emission reduction targets, we need to review or sophisticate accounting methods, as current results are not necessarily accurate, depending on categories, in both activity data and emission factor. • An accounting standard has not yet been established in our industry, and therefore each company has to make their own way. We wish to have official guidelines that are exclusively designed for construction industry.

Category	Accounting methods	
	Activity data	**Emission factor**
Category 1: Purchased goods and services	• [Timber & Building Materials Div.] ・Purchased volume or sales amount of products. [House construction] ・Out of wooden houses completed, number of houses entrusted to contract builders who are not in our group. ・Energy consumption related to construction per wooden house.	• [Timber & Building Materials Div.] EF per volume based on accumulation (Basic DB for CFP); EF per amount based on 3EID (MoE's DB) • [House construction] EF per energy used (Global Warming Countermeasures Act, MoE's DB)
Category 2: Capital goods	• Purchased amount for capital goods	• EF per purchased amount based on 3EID (MoE's DB)
Category 3: Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	• Energy consumption from use of fuel, electricity or steam • Tap-water consumption	• EF per energy used; EF per water used (Basic DB for CFP, MoE's DB)
Category 4: Upstream transportation and distribution	• [Domestic transportation] Fuel consumption from transportation by cargo owner *Transportation of waste is included in Cat. 5. • [Marine transportation] ・Purchased volume of import products. ・Transportation distance from cargo origin	• [Domestic transportation] EF per fuel used (Global Warming Countermeasures Act) • [Marine transportation] EF per volume (Basic DB for CFP)
Category 5: Waste generated in operations	• Waste generation by type of waste	• EF by type of waste (MoE's DB)
Category 6: Business travel	• Number of employees	• EF per employee (MoE's DB)
Category 7: Employee commuting	• Commutation expense that the company	• EF per commutation expense (MoE's DB)

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Category	Accounting methods	
	Activity data	**Emission factor**
Category 9: Downstream transportation and distribution	● [Timber & Building Materials Div.] ・Out of plywood and fiberboard sold, a portion delivered to clients (excluding those delivered in our cargo)	● EF per fuel used (Global Warming Countermeasures Act)
Category 10: Processing of sold products	● Number of raw wood and timber sold to wood processing companies	● EF per sales (based on historical LCA data from wood processing companies or from our wood processing plants.)
Category 11: Use of sold products	● Energy consumption in a year per house ● Number of wooden houses completed * Duration of residence assumes 60 years.	● EF per energy used (IDEA, Global Warming Countermeasures Act)
Category 12: End-of-life treatment of sold products	● Waste generation at demolition per house ● Fuel consumption at demolition per house ● Number of wooden houses completed	● [demolition] EF per fuel used (Global Warming Countermeasures Act) ● [Waste treatment (including transportation)] EF by type of waste (MoE's DB)
Category 15: Investments	● Σ (Scope 1 & 2 emissions from companies we invested in X our shareholding ratio)	

* Primary data show actual performance for FY2013, with some exclusions.

Accounting result

☐ Accounting result

Sumitomo Forestry Group FY2013 Scope 3 emissions

Legend:
- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6
- Category 7
- Category 9
- Category 10
- Category 11
- Category 12
- Category 15

Pie chart labels: Category 15, Category 12, Category 1, Category 11, Category 2, Category 4, Category 10

● Analysis by category clarifies that a considerable portion of upstream emissions (most of Category 1 & 4) comes from Timber & Building Materials Division, while downstream (all of Category 11) is from Housing Division.

* We suspended to account for raw-material procurement and processing & production stages for building parts (Category 1) in the Housing Division, as they have overlaps with Scope 1 & 2 emissions which are difficult to separate to each other. (However, even included in accounting, these overlaps are likely to be small scale compared to Category 1 emissions from Timber & Building Materials Division.)