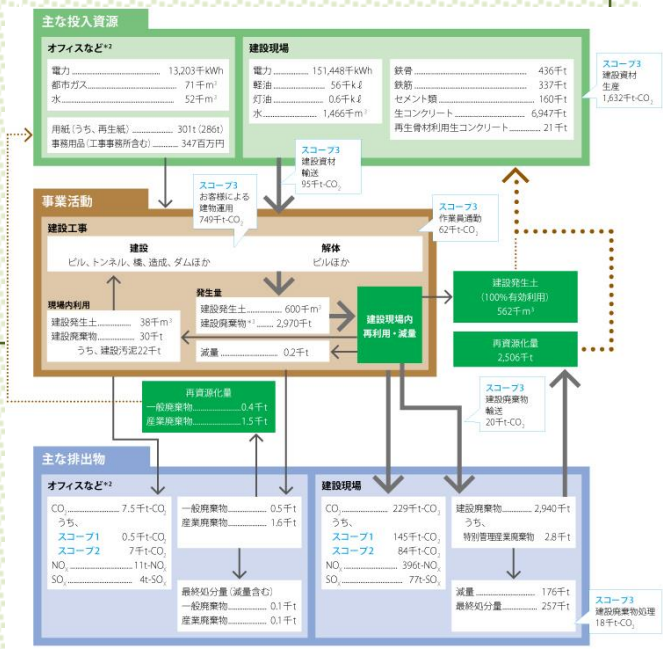
1 OBAYASHI CORPORATION

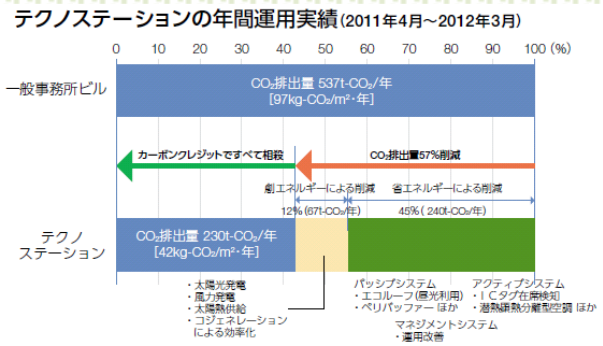
	Companies' approach
Background and purpose of accounting	• When the Kyoto Protocol became effective in 2005, we examined and publicized our emissions including part of our supply chain in order to determine the greenhouse gas emissions within our company and find what we needed to do. • Since then, we have been accounting every year in order to check on the effectiveness of our measures. • Understanding emissions helps to know our progress and to establish important sectors, so that establishing long-term goals is possible.
Utilization of accounting results	• The accounting results are used to determine which measures to emphasize and as material to discover priorities for the measures. • With regard to external use, we are showing how much construction companies emit and describe the reasons for our measures. • We also use the accounting results when environmental considerations are a requirement for bids. We use the results to show the types of measures we take and the reasons for them.
Benefits of accounting	• In order to contribute to global climate change countermeasures, we can clarify what is important from the point of view of emissions and what we should do.
Internal system for accounting	• The headquarters Environment Department collects overall data. • With regard to materials, energy used by buildings based on design, energy used at work sites, waste, and labor related data, the data is collected by the various departments responsible for these areas.



Source: Obayashi Corporate Report 2014

OBAYASHI CORPORATION 2

	Companies' approach
☐ **Efforts to reduce supply chain emissions**	• Construction material production: Changing to an alternative to cement (development and use of a low-carbon concrete that reduces CO_2 emissions during production by 80 percent), resource-saving design that reduces the use of materials. • Construction: Energy-saving tower cranes and elevators, and reduced boring for civil engineering projects. • Operation of customer buildings: Energy-saving design, etc.
☐ **Issues in supply chain emissions accounting**	• Primary subcontractors can provide data, but it is difficult for others. • The accounting results show that 80 of calculations are estimates and only 20 are from actual results. We sometimes question if this is meaningful. • Other than CO_2, it is also necessary to examine the affects of resources, recycling and costs. Costs are especially important; otherwise, the results cannot be used as management criteria. • It is necessary to make data collection as automatic as possible and with as little effort as possible. Basically, with respect to monetary data, collecting data from forms for checking is possible. • When more accurate data is collected, there is a tendency for emissions to increase. Improving accounting methods leads to higher emissions, so it is difficult to assess the effectiveness of reduction measures. • Our current mechanism does not allow for sufficient assessment, and we can only know the overall figures.
☐ **Other remarks**	



Source: Obayashi Corporate Report 2012

3 OBAYASHI CORPORATION

Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<Construction material production> • Procurement of major materials (collected by the head office, weight basis) <Construction> • Diesel and electricity usage (sample about 40 percent of all construction sites to collect data and extrapolate)	<Construction material production> • CO_2 emission factor when producing materials (weight basis) <Construction> • Emissions coefficient of greenhouse gas emissions calculations, reporting and publicizing system
Category 4: Transportation and delivery (upstream)	• Main material weight x Average transportation distance	• CO_2 emission factor per ton-km
Category 5: Waste generated in operations	<Disposal > • Waste disposal amount <Transport> • Main material weight x Average transportation distance	<Disposal> • Processing and disposal CO_2 emission factor <Transport> • CO_2 emission factor per ton-km
Category 7: Employee commuting	• Fuel usage when two employees use one vehicle for a round trip commute of 30 km	• Emissions coefficient of greenhouse gas emissions calculations, reporting and publicizing system
Category 11: Use of sold products	• Construction area by building type x Energy usage per area unit by building type	• Emissions coefficient of greenhouse gas emissions calculations, reporting and publicizing system