

1

United Parcel Service

	Company thinking
<input type="checkbox"/> Background and purpose for accounting	<ul style="list-style-type: none">● At UPS, we have been accounting for Scope 3 emissions (subcontracted logistics services) from railway transportation of packages since 2003, and we began accounting for the business travel category in 2008. We have been using the Scope 3 Standard of the GHG Protocol since 2010, and as of 2013 we report on all applicable Scope 3 accounting categories. The purpose of accounting for supply chain emissions is management of those emissions; but it can also be used to distinguish UPS from competitors by providing information on our supply chain emissions to customers.
<input type="checkbox"/> Utilization of accounting results	<ul style="list-style-type: none">● We disclose the results in a CSR Report, etc., and we also offer a service that provides data to help customers who wish to account for their own Scope 3 emissions.
<input type="checkbox"/> Advantages of accounting	<ul style="list-style-type: none">● It not only helps us optimize our own supply chain and reduce costs, but also lets us support optimization by our customers by providing data to many companies who use our logistics services.
<input type="checkbox"/> Internal accounting organization	<ul style="list-style-type: none">● We use a tool from Enablon for Scope 1 and 2, but our Scope 3 calculations are based on our own database. However, the emissions unit values that we use are basically those of the GHG Protocol. Our accounting results then receive third party verification.

Accounting methods

To reduce supply chain emissions

We take a comprehensive, global approach to reducing energy use and greenhouse gas emissions, including all our operations as well as major portions of our value chain (including customers and suppliers). Our strategy includes three components:

- In our global logistics network, we reduce the miles we travel to accomplish any given level of shipping; we reduce the fuel required to travel those miles; and we reduce the proportion of conventional fuels we use by expanding our fleet of alternative fuel and advanced technology vehicles.
- In our global facilities network, we reduce energy use and increase our use of renewable energy.
- In our value chain, we provide customers with services that help them reduce their carbon impact and we help suppliers increase their awareness about greenhouse gas emissions and how to reduce them.

Tasks to account for supply chain emissions

- We account for subcontracted logistics services under Category 4. It could also be handled under Category 1, considering that these are purchased services; but we decided to handle it under Category 4 after consulting with WRI, which developed the Scope 3 Standard. We multiply GHG Protocol data from distance, weight, and means of transportation by emissions unit values in accounting. Our approach to accounting in each category is explained in detail in the CSR Report.

Other items of note

- 2013 GHG Reporting as stated on page 93 of our 2013 CSR

GHG PERFORMANCE				
Global CO ₂ e Emissions ('000 tonnes)	2013	2012	% Change 12/13	Base Year
Scope 1	11,770	11,716	0.5%	11,713
Scope 2	828	823	0.6%	831
Gross Scope 1 & 2	12,598	12,539	0.5%	12,544
Scope 3	11,858	12,293 ⁽¹⁾	-3.5%	12,293
Gross Scope 1, 2 & 3	24,456	24,832	-1.5%	24,837
Voluntary carbon offsets for Scope 1 carbon neutral service (retired)	(35.9)	(36.0)		(2.7)
Voluntary carbon offsets for Scope 2 carbon neutral service (retired)	(3.3)	(3.2)		(0.2)
Voluntary carbon offsets for Scope 3 carbon neutral service (retired)	(9.3)	(4.4)		(0.3)
Net Global CO₂e Emissions	24,408	24,788	-1.5%	24,834
Biomass CO₂ Emissions Not Included in Above Totals ('000 tonnes)				
	2013	2012		
Mobile Combustion - Biomass CO ₂ (e.g. ethanol, bio-diesel)	45	38		
Stationary Combustion - Biomass CO ₂	0	0		
Total Biomass CO₂ (reported separately as per GHG Protocol)	45	38		

⁽¹⁾ Recalculated 2012 Scope 3 GHG emissions to include categories 1 and 2 enabling the ability to better compare results over time.

Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> ● i) Scope & Boundary: The upstream extraction, production, and transportation of goods and services purchased by all UPS operations, not otherwise included in Categories 2 – 8. Emissions factors used: Green Design Institute, Economic input-output life cycle assessment (EIO-LCA) model. GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. See iii below for activity data used. ● ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. ● iii) Methodology = The actual spend of purchased goods and services as reported in UPS annual 10-K filings, are inputted into the Economic Input-Output Life Cycle Assessment model, the model then estimates the GHG emissions 	<ul style="list-style-type: none"> ● Green Design Institute, Economic Input-Output Life Cycle Assessment
Category 2: Capital goods	<ul style="list-style-type: none"> ● i) Scope & Boundary: The upstream extraction, production, and transportation of capital expenditures purchased by all UPS operations, includes; buildings, aircraft, vehicles and information technology. Emissions factors used: Green Design Institute, Economic input-output life cycle assessment (EIO-LCA) model. GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. See iii below for activity data used. ● ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. ● iii) Methodology = The actual spend of capital goods as reported in UPS annual 10-K filings, are inputted into the Economic Input-Output Life Cycle Assessment model, the model then estimates the GHG emissions 	<ul style="list-style-type: none"> ● Green Design Institute, Economic Input-Output Life Cycle Assessment

Category	Accounting methods	
	Activity data	Emission factor
<p>Category 3: Fuel and energy related activities not included in Scope 1 or 2</p>	<ul style="list-style-type: none"> ● i) Scope & Boundary: Includes the upstream (well-to-pump) emissions from raw material extraction up to the point of (but excluding) combustion for the following global fuel sources: Jet-A, Diesel, Gasoline, CNG, LPG, LNG, natural gas, heating oil and propane. Includes the upstream emissions for the generation of purchased electricity and the transmission and distribution losses. Emissions factors used are from Network for Transport and Environment (NTM) and are the "well-to-pump" emissions associated with these specific fuel sources. GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. See iii below for activity data used. ● ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. ● iii) Methodology = Number of gallons consumed multiplied by the LCA Emission factor. The same primary data that is used to calculate the scope 1 emissions for these fuels are used to calculate the upstream emissions, the actual quantity of fuel consumed is multiplied by the appropriate life cycle emission factor. For example the total quantity of diesel fuel used (380,000,000 gallons) is multiplied by the appropriate LCA emission factor from NTM (10.98 kg CO₂e/gal) to calculate the total LCA emissions in metric tonnes from "well to wheel". The same methodology is applied to all other fuel/energy sources. 	<ul style="list-style-type: none"> ● CEN/TC 320/WG 10 Methodology and Carbon Trust Footprint Expert, Version 3.3

Category	Accounting methods	
	Activity data	Emission factor
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> i) Scope & Boundary: The Scope 3 emissions from purchased transportation (air, ground, rail & ocean modes of transportation) for the pick-up, transportation and delivery of packages/freight for our global operations. Emissions factors used: GHG Protocol Emission Factors from Cross-Sector Tools (August 2012). GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. Activity data used for this category is actual shipping data (weight, distance & mode) taken from various internal UPS shipping systems. ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. iii) Methodology = The primary method used to calculate the upstream emissions from purchased transportation is to multiply the actual weight and distance traveled for each shipment by the appropriate emission factor from the GHG Protocol. As an example, for purchased railroad transportation for UPS Small Package operation in the U.S., the actual ton-miles are calculated for each shipment made throughout the year (12,132,334,941 ton-miles). The ton-miles are multiplied by the appropriate emission factor (0.0252 kg CO₂/ton-mile) to estimate the total GHG emissions. Emission factors used for other modes of transportation are: Ocean = 0.01825 kg CO₂/ton-mile, Road = 0.297, and Air = 0.8953, the same methodology applies to the other transportation modes. 	<ul style="list-style-type: none"> GHG Protocol Emission Factors from Cross-Sector Tools Version 1.3 (Aug 2012) EPA SmartWay Carrier Rankings and Emission Rates (railroad only)

Category	Accounting methods	
	Activity data	Emission factor
Category 5: Waste generated in operations	<ul style="list-style-type: none"> i) Scope & Boundary: Includes the emissions that occur for landfilled, recycled, incinerated and recovered wastes streams in the U.S. only Emissions factors used: 2012 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting. GWP used are from SAR 2nd assessment report, CO2=1, CH4=21, N2O=310. Activity data used for this category is actual tonnage by waste stream as provided by the disposal vendor. ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. iii) Methodology = Number of metric tonnes of waste disposed by waste stream multiplied by the appropriate LCA Emission factor. For example, the method for waste that was landfilled, uses the actual metric tonnes of waste landfilled multiplied by the appropriate life cycle emission factor (199 kg CO2 per metric tonnes of waste disposed) to calculate the total LCA emissions for waste disposed of in landfills. The other waste streams follow the same methodology. 	<ul style="list-style-type: none"> 2012 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting

Category	Accounting methods	
	Activity data	Emission factor
Category 6: Business travel	<ul style="list-style-type: none"> i) Scope & Boundary: Represents business travel from UPS's global operations (Small Package Domestic, Small Package International and Global Supply Chain & Freight). Business travel CO₂e includes travel from the following sources; air travel, rail travel, rental car usage and use of personnel vehicles for work related activities. Emissions factors used: GHG Protocol Emission Factors from Cross-Sector Tools (August 2012). GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. See iii below for activity data used. ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. iii) Methodology for each source: Air/Rail Travel - air/rail travel is managed by American Express Travel Services. Each year they provide a detailed report of UPS's air/rail travel, this report details each trip with the actual distance traveled. Air/Rail travel is calculated by multiplying the distance traveled by the appropriate emission factor. Air travel GHG is based on different values for short, medium and long-haul flights. Protocol for length of trip (short-haul is under 300 miles; medium haul is under 2300 miles and long-haul is over 2300 miles. The GHG emissions factor for each length of trip: short is 0.286 kg CO₂ per passenger-mile; medium is 0.168; long is 0.194. Rail travel GHG is based on the emission factor 0.185 kg CO₂ per passenger-mile. Rental cars are managed by American Express Travel services, each year they provide a detailed report of UPS's rental car GHG emissions. Rental car GHG emissions are based on actual distance traveled by an appropriate emission factor for each class of vehicle. For example the emission factor for an intermediate class C car is 292.7 grams of CO₂ per mile. Each class vehicle has a specific emission factor. Personnel vehicle used for business is managed and calculated by UPS. The distance traveled is captured from UPS's accounting system that is used to reimburse employees for any miles traveled for business. These miles are then multiplied by the appropriate emission factor (0.39156 kg CO₂ per vehicle-mile) to estimate total GHG emissions. 	<ul style="list-style-type: none"> GHG Protocol Emission Factors from Cross-Sector Tools Version 1.3 (Aug 2012)

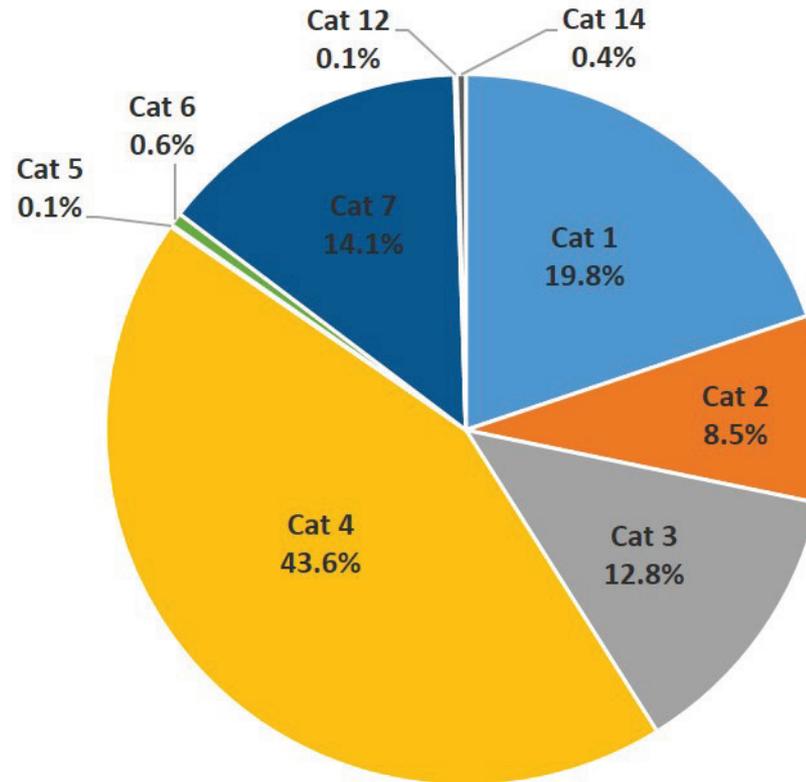
Category	Accounting methods	
	Activity data	Emission factor
Category 7: Employee commuting	<ul style="list-style-type: none"> ● i) Scope & Boundary: Includes the emissions that occur for the transportation of our employees between their homes and their workplace for our global operations. Emissions factors used: GHG Protocol Emission Factors from Cross-Sector Tools (August 2012). GWP used are from SAR 2nd assessment report, CO₂=1, CH₄=21, N₂O=310. See iii below for activity data used. ● ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. ● iii) Methodology used = Actual number of employees multiplied by average gallons used per employee (UPS calculated this factor) multiplied by the emission factor for gasoline (8.81 kg CO₂ per gallon): The actual number of employees were captured from the UPS census for all global business units. The UPS factor for estimated gallons per employee was created by combining information from the following; US Census data (average commute times by state), the 2010 Urban Mobility report from the Texas Transportation Institute (peak and off peak arterial and highway speeds of domestic US cities) and composite fuel efficiency results from the Department of Transportation and the Federal Highway Administration. An iterative Monte Carlo simulation was then performed to provide a 95% uncertainty interval. The formula for estimating employee commuting CO₂ = 'number of employees' multiplied by 'UPS factor for average gallons per employee' multiplied by emission factor for gasoline (8.81 kg CO₂/gallon). 	<ul style="list-style-type: none"> ● GHG Protocol Emission Factors from Cross-Sector Tools Version 1.3 (Aug 2012)

Category	Accounting methods	
	Activity data	Emission factor
Category 8: Leased assets (upstream)	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard. All GHG emissions from upstream leased assets are already captured in scope 1 and 2. 	<ul style="list-style-type: none"> Not applicable
Category 9: Transportation and delivery (downstream)	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard. UPS does not have any downstream transportation and distribution. All transportation and distribution is purchased by UPS and captured in category 4 (upstream transportation and distribution) 	<ul style="list-style-type: none"> Not applicable
Category 10: Processing of sold products	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard, UPS does not have a product. 	<ul style="list-style-type: none"> Not applicable
Category 11: Use of sold products	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard, UPS does not have a product. 	<ul style="list-style-type: none"> Not applicable

Category	Accounting methods	
	Activity data	Emission factor
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> i) Scope & Boundary: Includes the emissions for the end-of-life for UPS branded and supplied packaging materials globally. Emissions factors used: 2012 Guidelines to Defra/DECC's GHG Conversion Factors for Company Reporting. GWP used are from SAR 2nd assessment report, CO2=1, CH4=21, N2O=310. Activity data used for this category is actual tonnage of purchased packaging by UPS. ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. iii) Methodology = Number of metric tonnes of purchased packaging multiplied by the appropriate LCA Emission factor (landfilled = 553 kg CO2/metric tonne and recycled=21kg CO2/mt). It is assumed that 63% of the packaging is recycled (source www.epa.gov). For example, the method for packaging that was landfilled, uses the actual metric tonnes of purchased packaging multiplied by 36% multiplied by the appropriate life cycle emission factor (553 kg CO2 per metric tonnes) to calculate the total LCA emissions for end-of-life of UPS packaging disposed of in landfills. The packaging recycled follows the same methodology. 	<ul style="list-style-type: none"> 2012 Guidelines to DEFRA/DECC's GHG Conversion Factors for Company Reporting
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard. This category does not meet the criteria for relevance based on absolute quantity of emissions, risk, influence or relevance to UPS's service 	<ul style="list-style-type: none"> Not applicable

Category	Accounting methods	
	Activity data	Emission factor
Category 14: Franchises	<ul style="list-style-type: none"> i) Scope & Boundary: Estimated electricity and natural gas usage for over 4,700 UPS Stores serving the U.S., Canada and India. Emissions factors used: EPA EnergyStar. GWP used are from SAR 2nd assessment report, CO2=1, CH4=21, N2O=310. See iii below for activity data used. ii) The data quality of the reported emissions is considered 'good'. The uncertainty of the reported scope 3 emissions of all categories combined is +/- 8%. iii) Methodology = Using actual square footage of the UPS Store franchises multiplied by an average energy emission factor of 86,891 BTU's/sf (energy usage per square foot established by the Energy Star Program for a comparable building type and published as a Probability Distribution function), an estimated GHG from the UPS Store franchises can be calculated. 	<ul style="list-style-type: none"> GHG Protocol Emission Factors from Cross-Sector Tools Version 1.3 (Aug 2012)
Category 15: Investments	<ul style="list-style-type: none"> This category is not relevant as defined by the GHG Corporate Value Chain Scope 3 Accounting and Reporting Standard. This category does not meet the criteria for relevance based on absolute quantity of emissions, risk, influence or relevance to UPS's service. 	<ul style="list-style-type: none"> Not applicable
Others	<ul style="list-style-type: none"> Not relevant, all scope 3 emission are accounted for in the defined 15 categories 	<ul style="list-style-type: none"> Not applicable

Accounting result – Scope 3 Breakdown



- Categories 8, 9, 10, 11, 13 and 15 are not applicable to UPS
- Represents 2013 calendar year results