

# Transportation

## ESG Evaluation Key Sustainability Factors

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### ANALYTICAL CONTACTS

**Bertrand Jabouley**

Singapore  
+65-6239-6303  
bertrand.jabouley  
@spglobal.com

**Luisina Berberian**

Madrid  
+34-91-788-7200  
luisina.berberian  
@spglobal.com

**Philip Baggaley**

New York  
+1-212-438-7683  
philip.baggaley  
@spglobal.com

**Julyana Yokota**

São Paulo  
+55-11-982-792-84734  
julyana.yokota  
@spglobal.com

**Kurt Forsgren**

Boston  
+1-617-530-8308  
kurt.forsgren  
@spglobal.com



## Approach

Our key sustainability factors identify the most material environmental and social risks assessed in our ESG Evaluation. We assess the materiality<sup>1</sup> of those risks across the industry’s value chain and reflect them in the weighting of our environmental and social factors. We also provide the quantitative<sup>2</sup> indicators used to assess a company’s performance relative to its industry peers on each of those factors. For further information, please refer to our [“Environmental, Social, And Governance Evaluation: Analytical Approach.”](#)

## Scope

The transportation industry is divided into transportation media (air, road, rail, sea/river), with further segmentation between passenger and freight transport.

Participants in each segment include infrastructure operators, and passenger and freight transport companies.




## Material Environmental Risks


Freight and passenger transporters and infrastructure providers are exposed to material environmental risks across their value chains:

- **Acute and chronic physical climate risks.** Climate-related risks from storms, flooding, and increasing average and extreme temperatures may shorten the useful life of vehicles and infrastructure, disrupt transportation routes, or increase the risk of accidents.
- **Operations’ energy intensity.** Carriers almost exclusively rely on hydrocarbons to propel vehicles, airplanes, and vessels. Likewise, some infrastructures use a lot of nonrenewable fuels and electricity. The industry’s energy intensity translates into considerable greenhouse gas (GHG) emissions as a result, both direct and indirect.
- **Waste management.** Waste and pollution stem from the combustion of fossil fuels, accidental spills of cargo, and the (single) use of packaging for freight and containers/accessories for passenger catering. An additional challenge for transporters is proper end-of-life equipment management.
- **Use of land and preservation of biodiversity.** Land use is important for companies or public enterprises operating infrastructure with a large footprint, especially toll road networks, which tend to be widespread. And this is likely to become more pronounced as regulation on ecosystem protection and restoration becomes more stringent. Risk of remediation for biodiversity or restitution for intensive land use may also be relevant for (air)ports, as expansion may prove a challenge given that operations are typically near urban areas.

## Environmental Factors: Weighting And KPIs





The weighting of environmental factors varies by sub-sector. We also use different quantitative performance indicators to inform our opinion of an entity’s management of its environmental impact relative to peers in the same sub-sector. Our opinion under our ESG Evaluation is also informed by qualitative indicators such as climate-related policy and company-specific commitments.

Factor	Airlines	Air freight and logistics	Shipping	Road (trucking/ car/ buses)	Rail freight	Rail tracks and rail passengers	Airports	Ports	Roads
 <b>Greenhouse gas emissions</b>	55%	50%	40%	45%	45%	55%	40%	30%	30%
 <b>Waste and pollution</b>	25%	30%	40%	35%	30%	20%	15%	30%	30%
 <b>Land use and biodiversity</b>	10%	10%	10%	10%	15%	15%	25%	30%	30%

Factor	Airlines	Air freight and logistics	Shipping	Road (trucking/ car/ buses)	Rail freight	Rail tracks and rail passengers	Airports	Ports	Roads
 Water	10%	10%	10%	10%	10%	10%	20%	10%	10%





## Airlines

Planes consume considerable volumes of fossil fuels, with no to very limited substitutes for the time being. This makes GHG emissions the most relevant environmental factor for passenger air carriers. Waste and pollution are the next most important parameter as fossil-fuel combustion emits air pollutants, and given cabin waste volumes. Water and land use are not that relevant to passenger air transportation.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	55%	<ul style="list-style-type: none"> <li>– Scope 1 emissions intensity (metric tonnes [mt] of carbon dioxide equivalent [tCO<sub>2</sub>e], per revenues [in US\$ million] and/or per Revenue Tonne Kilometre [RTK]/Revenue Passenger Kilometre [RPK])</li> <li>– Energy intensity (gigajoule [GJ] per revenues and/or per RTK/RPK)</li> </ul>	<ul style="list-style-type: none"> <li>– Scope 2 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per RTK/RPK)</li> </ul>
 Waste and pollution	25%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues, and/or RTK/RPK)</li> <li>– Air pollution (mt of NO<sub>x</sub>, SO<sub>x</sub>, and particulate matters per revenue and/or RTK/RPK)</li> </ul>	<ul style="list-style-type: none"> <li>– Cabin waste generated (mt of waste, per revenues and/or RTK/RPK or kg of waste per passenger)</li> <li>– Waste recycled (% total waste)</li> </ul>
 Land use and biodiversity	10%	<ul style="list-style-type: none"> <li>– Biofuels used (% total fuels)</li> </ul>	<ul style="list-style-type: none"> <li>– Traceability and third-party certification of biofuels with high deforestation risks (e.g. palm oil)</li> </ul>
 Water	10%	<ul style="list-style-type: none"> <li>– Water use intensity (cubic meters [m<sup>3</sup>] per revenues and/or per RTK/RPK)</li> </ul>	





## Air freight and logistics

Freight companies’ fleets emit large volumes of GHG and pollutants from fossil-fuel combustion. Waste comes from the extensive use of packaging, while water and land use are not as meaningful for the sector.

Factor	Weight	Key performance indicators	Other performance indicators
 Greenhouse gas emissions	50%	<ul style="list-style-type: none"> <li>– Scope 1 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per RTK)</li> <li>– Energy intensity (GJ by revenues and/or by RTK)</li> </ul>	<ul style="list-style-type: none"> <li>– Scope 2 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per RTK)</li> </ul>
 Waste and pollution	30%	<ul style="list-style-type: none"> <li>– Air pollution (mt of NO<sub>x</sub>, SO<sub>x</sub>, and particulate matters per revenue and/or RTK)</li> <li>– Waste intensity (mt of waste, per revenues and/or RTK)</li> </ul>	<ul style="list-style-type: none"> <li>– Packaging waste generated (mt of waste, per revenues and/or RTK)</li> <li>– Use of reusable/recycled/recyclable packaging (% total)</li> <li>– Waste recycled (% total waste)</li> </ul>
 Land use and biodiversity	10%	<ul style="list-style-type: none"> <li>– Biofuels used (% total fuels)</li> <li>– Warehouses in areas with biodiversity risks (% total square metres [sqm])</li> </ul>	<ul style="list-style-type: none"> <li>– Traceability and third-party certification of biofuels with high deforestation risks (e.g. palm oil)</li> </ul>
 Water	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m<sup>3</sup> per revenues and/or per RTK)</li> </ul>	





## Shipping

Ships carry potentially hazardous cargos or polluting commodities. Accidental spills can be damaging to land, water, and wildlife, especially given how much the average vessel size has grown. As the sector burns heavy fuels, GHG emissions are as important an environmental consideration as the emission of air pollutants.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	40%	<ul style="list-style-type: none"> <li>– Scope 1 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per tonne mile [TM])</li> <li>– Energy intensity (GJ per revenues and/or per TM)</li> </ul>	<ul style="list-style-type: none"> <li>– Scope 2 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per TM)</li> </ul>
 <b>Waste and pollution</b>	40%	<ul style="list-style-type: none"> <li>– Air pollution (mt of NO<sub>x</sub>, SO<sub>x</sub>, and particulate matters per revenue and/or TM)</li> <li>– Waste intensity (mt of waste, per revenues, and/or TM)</li> <li>– Hazardous waste (% total waste)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> <li>– Hydrocarbons and cargo spills (number and volumes involved)</li> <li>– Ship scrapping policy (number of ships sold to shipyards with a proven record in environmental management)</li> </ul>
 <b>Land use and biodiversity</b>	10%	<ul style="list-style-type: none"> <li>– Shipping in marine protected areas (number of routes, duration in days)</li> <li>– Portion of fleet equipped with ballast water treatment</li> </ul>	<ul style="list-style-type: none"> <li>– Biofuels used (% total fuels)</li> <li>– Traceability and third-party certification of biofuels with high deforestation risks (e.g. palm oil)</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m<sup>3</sup> per revenues and/or per TM)</li> </ul>	





## Road (trucks/parcel delivery/buses)

GHG emissions are an important factor given the sector’s energy intensity and evolving regulatory landscape. Non-GHG pollution is also subject to existing or potential regulation. Freight road hauling can likewise translate into polluting incidents, but on a smaller scale compared to shipping, and sometimes uses large volumes of packaging, such as for parcel delivery. This translates into waste, which justifies an emphasis on waste and pollution, while passenger road transport would be less affected.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	45%	<ul style="list-style-type: none"> <li>– Scope 1 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per RTK or RPK)</li> <li>– Energy intensity (GJ per revenues and/or per RTK or RPK)</li> </ul>	<ul style="list-style-type: none"> <li>– Scope 2 emissions intensity (tCO<sub>2</sub>e, per revenues and/or per RTK or RPK)</li> </ul>
 <b>Waste and pollution</b>	35%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues and/or RTK or RPK)</li> <li>– Air pollution (mt of NO<sub>x</sub>, SO<sub>x</sub>, and particulate matters per revenue and/or RTK or RPK)</li> </ul>	<ul style="list-style-type: none"> <li>– Accidental releases (number and volumes of cargo involved)</li> <li>– Waste recycled (% total waste)</li> <li>– Use of reusable/recycled/recyclable packaging (% total)</li> </ul>
 <b>Land use and biodiversity</b>	10%	<ul style="list-style-type: none"> <li>– Biofuels used (% total fuels)</li> <li>– Traceability and third-party certification of biofuels with high deforestation risks (e.g. palm oil)</li> </ul>	<ul style="list-style-type: none"> <li>– Warehouses/stops in areas with biodiversity risks (number or % total square metres [sqm])</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m<sup>3</sup> per revenues and/or per RTK, or RPK)</li> </ul>	





## Rail freight

As rail operators typically use diesel or electric power to operate their trains, scope 1 and 2 GHG emissions remain a dominant topic, depending on the type of power and the local grid’s carbon intensity. Freight can generate significant pollution in case of accidents and via ongoing pollution at rail yards and maintenance facilities.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	45%	<ul style="list-style-type: none"> <li>– Scope 1 and 2 emissions intensity (tCO2e, per revenues and/or per RTK)</li> <li>– Energy intensity (GJ per revenues and per RTK or passenger)</li> </ul>	<ul style="list-style-type: none"> <li>– Energy sourced from renewable sources (% total)</li> </ul>
 <b>Waste and pollution</b>	30%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues, and/or RTK)</li> <li>– Air pollution (mt of NOx, SOx, and particulate matters per revenue and/or RTK)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> <li>– Non-accident and accident releases (number and volumes involved)</li> </ul>
 <b>Land use and biodiversity</b>	15%	<ul style="list-style-type: none"> <li>– Rails in protected areas (kilometres and % total network)</li> </ul>	<ul style="list-style-type: none"> <li>– Warehouses/stops in areas with biodiversity risks (number or % total square metres)</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m3 per revenues and per RTK)</li> </ul>	



### Rail tracks and passengers/mass transit



The exposure to GHG emissions is sizeable, regardless of whether it is direct (for diesel locomotives) or indirect (scope 2 emissions for trains that operate on electricity). Consumables and passenger food contribute to waste volumes.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	55%	<ul style="list-style-type: none"> <li>– Scope 1 and 2 emissions intensity (tCO2e, per revenues and/or per RTK/RPK/passenger)</li> <li>– Energy intensity (GJ per revenues and per RTK/RPK or passenger)</li> </ul>	<ul style="list-style-type: none"> <li>– Energy sourced from renewable sources (% total)</li> </ul>
 <b>Waste and pollution</b>	20%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues, and/or RTK/RPK or passenger)</li> <li>– Air pollution (mt of NOx, SOx, and particulate matters per revenue and/or RTK/RPK or passenger)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> </ul>
 <b>Land use and biodiversity</b>	15%	<ul style="list-style-type: none"> <li>– Underground network (% total network)</li> </ul>	<ul style="list-style-type: none"> <li>– Spending (in US\$ million) on biodiversity protection nearby network</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m3 per revenues and/or per RTK/RPK or passenger)</li> </ul>	

### Airports





Airports emit considerable GHG volumes given the energy intensity of their operations. They also have to handle waste, which comes from their own operations, shop owners, and passengers. As they need extensive land, airports' management of surrounding nature is attracting growing attention from stakeholders.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	40%	<ul style="list-style-type: none"> <li>– Scope 1 and 2 emissions intensity (tCO2e, per revenues and/or per million passengers)</li> <li>– Energy intensity (GJ per revenues and per million passengers)</li> </ul>	<ul style="list-style-type: none"> <li>– Energy sourced from renewable sources (% total)</li> <li>– Scope 3 emissions intensity (tCO2e, per revenues and/or per million passengers)</li> </ul>
 <b>Waste and pollution</b>	15%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues, and/or per million passengers)</li> <li>– Air pollution (mt of NOx, SOx, and particulate matters per revenues and/or per million passengers)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> <li>– Hazardous waste (% total waste)</li> <li>– Wastewater treatment (de-icing, oil contaminants)</li> </ul>

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Land use and biodiversity</b>	25%	<ul style="list-style-type: none"> <li>– % of assets in sensitive areas or specially protected areas for biodiversity</li> <li>– Number of incidents of non-compliance with environmental permits, standards, and regulations</li> </ul>	<ul style="list-style-type: none"> <li>– Spending (in US\$ million) on biodiversity protection nearby facilities</li> </ul>
 <b>Water</b>	20%	<ul style="list-style-type: none"> <li>– Water use intensity (m3 per revenues and/or per million passengers)</li> </ul>	<ul style="list-style-type: none"> <li>– Use of reclaimed /recycled water for watering, washing roadways, and hygiene (% total water use)</li> </ul>





## Ports

On top of managing their carbon emissions and the waste their activities generate, ports face the additional challenge of minimizing how their operations affect fragile coastal and marine ecosystems.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	30%	<ul style="list-style-type: none"> <li>– Scope 1 and 2 emissions intensity (tCO2e, per revenues and/or per volumes handled [in mt])</li> <li>– Energy intensity (GJ per revenues and/or volumes handled)</li> </ul>	<ul style="list-style-type: none"> <li>– Energy sourced from renewable sources (% total)</li> <li>– Scope 3 emissions intensity (tCO2e, per revenues and/or per volumes handled [in mt])</li> </ul>
 <b>Waste and pollution</b>	30%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues, and/or volumes handled)</li> <li>– Air pollution (mt of NOx, SOx, and particulate matters per revenue and/or volumes handled)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> <li>– Hazardous waste (% total waste)</li> </ul>
 <b>Land use and biodiversity</b>	30%	<ul style="list-style-type: none"> <li>– Spending (in US\$ million) on biodiversity protection nearby facilities</li> <li>– Number of incidents of non-compliance with environmental permits, standards, and regulations</li> </ul>	<ul style="list-style-type: none"> <li>– Assets in sensitive areas or specially protected areas for biodiversity (% total)</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m3 per revenues and/or volumes handled)</li> </ul>	

## Roads

Road operators grapple with large direct and indirect carbon emissions, while their operations can generate significant (hazardous) waste, notably from road maintenance. Their impact on neighboring ecosystems also drives their sustainability performance.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Greenhouse gas emissions</b>	30%	<ul style="list-style-type: none"> <li>– Scope 1 and 2 emissions intensity (tCO2e, per revenues and/or per total distance travelled by users, in million kilometres [mkm])</li> <li>– Energy intensity (GJ per revenues and/or per total distance travelled by users)</li> </ul>	<ul style="list-style-type: none"> <li>– Energy sourced from renewable sources (% total)</li> <li>– Scope 3 emissions intensity (tCO2e, per revenues, and/or per total distance travelled by users, in mkm)</li> </ul>
 <b>Waste and pollution</b>	30%	<ul style="list-style-type: none"> <li>– Waste intensity (mt of waste, per revenues and/or total distance travelled by users)</li> <li>– Air pollution (mt of NOx, SOx, and particulate matters per revenue and/or total distance travelled by users)</li> </ul>	<ul style="list-style-type: none"> <li>– Waste recycled (% total waste)</li> <li>– Cement/asphalt used with recycled materials (% total)</li> </ul>
 <b>Land use and biodiversity</b>	30%	<ul style="list-style-type: none"> <li>– Spending (in US\$ million) on biodiversity protection nearby facilities</li> <li>– Number of incidents of non-compliance with environmental permits, standards, and regulations</li> </ul>	<ul style="list-style-type: none"> <li>– Assets in sensitive areas or specially protected areas for biodiversity (% total network)</li> </ul>
 <b>Water</b>	10%	<ul style="list-style-type: none"> <li>– Water use intensity (m3 per revenues and/or per total distance travelled by users)</li> </ul>	





## Material Social Risks

Transportation companies are exposed to material social risks across their value chains:

- **Safety in operations.** The health and safety of employees and passengers is critical given that the transportation industry sees regular incidents and accidents, especially on roads. Air transport accidents are much rarer.
- **Exposure to epidemic disease outbreaks.** As the pandemic has clearly shown since last year, widespread disease can halt passenger transport. Freight transportation can be somewhat disrupted but is much less affected in most cases.
- **Reliance on a skilled and diverse workforce.** Operators need a trained and motivated workforce to provide a reliable service. In some sub-sectors, the workforce is largely unionized, which means that sound management of labor relations is needed to support worker commitment and retention.
- **Risk to social license to operate.** Community engagement is key as infrastructure players' operations directly affect their neighbors, whose unrest or dissatisfaction may translate into blockages, demonstrations, or problems getting permits. Community engagement is particularly relevant for expansion projects such as airport runways or port terminals given that the governing bodies responsible for providing permits are having to respond to increasingly vocal communities.
- **Transportation services tend to be largely commoditized.** This makes customer engagement a secondary social driver of sustainability, particularly for freight transportation. However, operators own increasing volumes of customer data, which calls for the careful management and protection of this information.

## Social Factors: Weighting And KPIs





The weighting of our social factors varies by sub-sector. We use relatively similar indicators to inform our opinion of an entity's management of its social impacts relative to peers in the same sub-sector, although some may vary. Our opinion under our ESG Evaluation is also informed by qualitative indicators. Examples of qualitative indicators include the quality and effectiveness of an entity's policy on safety and community engagement.

Factor	Airlines	Air freight and logistics	Shipping	Road (trucking/ car/ buses)	Rail freight	Rail tracks and rail passengers	Airports	Ports	Roads
 Safety management	35%	25%	50%	40%	35%	35%	35%	30%	30%
 Workforce and diversity	30%	35%	30%	30%	40%	20%	15%	20%	10%
 Customer engagement	25%	30%	10%	20%	10%	25%	15%	20%	30%
 Communities	10%	10%	10%	10%	15%	10%	35%	30%	30%

### Airlines





Most air accidents have dramatic, even tragic, consequences and hit the headlines, so safety is imperative. Operators also need to ensure they have the right personnel with a wide set of skills,

from pilots to warehouse workers. Airlines must engage with their customers to protect their market share. Exposure to epidemics is significant across the industry, although airlines that operate international routes tend to be more at risk. Operations can also be disrupted by war and terrorism.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	35%	<ul style="list-style-type: none"> <li>– Lost time injury frequency rate (LTIFR), including contractors</li> <li>– Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>– Accidents and incidents (number)</li> <li>– Comprehensiveness of occupational health and safety oversight</li> </ul>
 <b>Workforce and diversity</b>	30%	<ul style="list-style-type: none"> <li>– Voluntary/involuntary turnover rate (% workforce)</li> <li>– Women (% workforce, % management)</li> <li>– Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>– Employees taking part in the employee survey (% workforce)</li> <li>– Gender pay gap</li> <li>– Employees covered by collective bargaining agreements (% total)</li> </ul>
 <b>Customer engagement</b>	25%	<ul style="list-style-type: none"> <li>– Satisfied customers (% of total customers responding to company's survey)</li> <li>– Customer complaints (number received yearly)</li> <li>– Customers participating in the company's loyalty programme (% total customers)</li> </ul>	<ul style="list-style-type: none"> <li>– Comprehensiveness of data privacy policies (number of policies)</li> <li>– Load factor (%)</li> <li>– Past anticompetitive practices cases (numbers)</li> <li>– Customer data breaches (number)</li> </ul>
 <b>Communities</b>	10%	<ul style="list-style-type: none"> <li>– Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>– Breakdown of philanthropic contributions (%)</li> </ul>


### Air freight and logistics

In a highly competitive industry with limited product personification, having the right people to deliver a positive experience is a key differentiator. Likewise, safety management matters to ensure smooth operations, while operators' impact on communities is not as meaningful.




Factor	Weight	Key performance indicators	Other performance indicators
 <b>Workforce and diversity</b>	35%	<ul style="list-style-type: none"> <li>– Voluntary/involuntary turnover rate (% workforce)</li> <li>– Women (% workforce, % management)</li> <li>– Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>– Employees taking part in the employee survey (% workforce)</li> <li>– Gender pay gap</li> <li>– Employees covered by collective bargaining agreements (% total)</li> </ul>
 <b>Customer engagement</b>	30%	<ul style="list-style-type: none"> <li>– Satisfied customers (% of total customers responding to company's survey)</li> <li>– Customer complaints (number received p.a.)</li> </ul>	<ul style="list-style-type: none"> <li>– Load factor (%)</li> <li>– Customer data breaches (number)</li> <li>– Comprehensiveness of data privacy policies (number of policies)</li> </ul>
 <b>Safety management</b>	25%	<ul style="list-style-type: none"> <li>– LTIFR, including contractors</li> <li>– Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>– Aviation and road accidents (number)</li> <li>– Comprehensiveness of occupational health and safety oversight</li> </ul>
 <b>Communities</b>	10%	<ul style="list-style-type: none"> <li>– Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>– Breakdown of philanthropic contributions (%)</li> </ul>

### Shipping

Safety is the main driver for an industry characterized by typically limited crew numbers to steer colossal vessels. The industry is exposed to tough working conditions (long hours and low wages and benefits) making good workforce management a differentiator.





Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	50%	<ul style="list-style-type: none"> <li>– LTIFR, including contractors</li> <li>– Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>– Number of serious marine incidents</li> <li>– Comprehensiveness of occupational health and safety oversight</li> </ul>



Factor	Weight	Key performance indicators	Other performance indicators
 <b>Workforce and diversity</b>	30%	<ul style="list-style-type: none"> <li>– Voluntary/involuntary turnover rate (% workforce)</li> <li>– Women (% workforce, % management)</li> <li>– Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>– Employees taking part in the employee survey (% workforce)</li> <li>– Gender pay gap</li> <li>– Employees covered by collective bargaining agreements (% total)</li> </ul>
 <b>Customer engagement</b>	10%	<ul style="list-style-type: none"> <li>– Satisfied customers (% of total customers responding to company’s survey)</li> <li>– Customer complaints (number received yearly.)</li> </ul>	<ul style="list-style-type: none"> <li>– Customer data breaches (number)</li> <li>– Comprehensiveness of data privacy policies (number of policies)</li> <li>– Record of market share on key routes</li> </ul>
 <b>Communities</b>	10%	<ul style="list-style-type: none"> <li>– Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>– Breakdown of philanthropic contributions (%)</li> <li>– Ship scrapping policy (number of ships sold to shipyards with a proven record in human rights management)</li> </ul>



### Road (trucking/parcel delivery/buses)



Most accidents in the transportation industry occur on roads, which underscores the importance of safety in this segment. This relates to some extent to workforce management, as the industry has seen cases of very long working hours and limited training, contributing to more hazardous working conditions.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	40%	<ul style="list-style-type: none"> <li>– LTIFR, including contractors</li> <li>– Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>– Road incidents and accidents (number)</li> <li>– Comprehensiveness of occupational health and safety oversight</li> </ul>
 <b>Workforce and diversity</b>	30%	<ul style="list-style-type: none"> <li>– Voluntary/involuntary turnover rate (% workforce)</li> <li>– Women (% workforce, % management)</li> <li>– Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>– Employees taking part in the employee survey (% workforce)</li> <li>– Gender pay gap</li> <li>– Employees covered by collective bargaining agreements (% total)</li> <li>– Drivers classified as independent contractors (% total)</li> </ul>
 <b>Customer engagement</b>	20%	<ul style="list-style-type: none"> <li>– Satisfied customers (% of total customers responding to company’s survey)</li> <li>– Customer complaints (number received p.a.)</li> </ul>	<ul style="list-style-type: none"> <li>– Customer data breaches (number)</li> <li>– Comprehensiveness of data privacy policies (number of policies)</li> </ul>
 <b>Communities</b>	10%	<ul style="list-style-type: none"> <li>– Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>– Breakdown of philanthropic contributions (%)</li> </ul>

### Rail freight





While an essential contributor to logistical chains, rail is less directly exposed to communities or customers as this segment focuses on freight and typically B-to-B relationships. Accordingly, safety and workforce management are prevailing themes.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Workforce and diversity</b>	40%	<ul style="list-style-type: none"> <li>– Voluntary/involuntary turnover rate (% workforce)</li> <li>– Women (% workforce, % management)</li> <li>– Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>– Employees taking part in an employee survey (% workforce)</li> <li>– Gender pay gap</li> <li>– Employees covered by collective bargaining agreements (% total)</li> </ul>
 <b>Safety management</b>	35%	<ul style="list-style-type: none"> <li>– LTIFR, including contractors</li> <li>– Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>– Comprehensiveness of occupational health and safety oversight</li> <li>– Number of accidents and incidents (rail crossing collisions, trespassers, and so on)</li> </ul>

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Communities</b>	15%	<ul style="list-style-type: none"> <li>Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>Breakdown of philanthropic contributions (%)</li> </ul>
 <b>Customer engagement</b>	10%	<ul style="list-style-type: none"> <li>Satisfied customers (% of total customers responding to a company's survey)</li> <li>Customer complaints (number received yearly)</li> </ul>	<ul style="list-style-type: none"> <li>Customer data breaches (number)</li> <li>Comprehensiveness of data privacy policies (number of policies)</li> </ul>





### Rail tracks and passengers/mass transit

Passenger rail transportation has a huge social impact given the sheer numbers of people carried. To that extent, the safety of both employees and customers is pivotal. Likewise, customer engagement matters because it helps players secure market share in competitive environments, and monopoly operators manage social well-being and connectivity.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	35%	<ul style="list-style-type: none"> <li>LTIFR, including contractors</li> <li>Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>Aviation and road accidents (number)</li> <li>Comprehensiveness of occupational health and safety oversight</li> <li>Rail incidents and accidents (number)</li> </ul>
 <b>Customer engagement</b>	25%	<ul style="list-style-type: none"> <li>Satisfied customers (% of total customers responding to company's survey)</li> <li>Customer complaints (number received yearly)</li> <li>Delays in train schedule (frequency and duration)</li> </ul>	<ul style="list-style-type: none"> <li>Customer data breaches (number)</li> <li>Comprehensiveness of data privacy policies (number of policies)</li> </ul>
 <b>Workforce and diversity</b>	20%	<ul style="list-style-type: none"> <li>Voluntary/involuntary turnover rate (% workforce)</li> <li>Women (% workforce, % management)</li> <li>Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>Employees taking part in the employee survey (% workforce)</li> <li>Gender pay gap</li> <li>Employees covered by collective bargaining agreements (% total)</li> </ul>
 <b>Communities</b>	10%	<ul style="list-style-type: none"> <li>Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>Breakdown of philanthropic contributions (%)</li> </ul>





### Airports

Airports strive to minimize operational disruptions (including terrorism, war, and cyber risk threats), given the huge numbers of passengers and volume of freight they handle and the tight slots they manage. Employees have an important role to play to that extent. Airports are also typically key local employers and need to compensate their neighbors for nuisance, especially noise.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	35%	<ul style="list-style-type: none"> <li>LTIFR, including contractors</li> <li>Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensiveness of occupational health and safety oversight</li> <li>Passenger incident rate before/after boarding (number per million passengers)</li> <li>Accidents (number)</li> </ul>
 <b>Communities</b>	35%	<ul style="list-style-type: none"> <li>Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>Breakdown of philanthropic contributions (%)</li> <li>Project delays because of community opposition (number, duration in days, and estimated cost [in US\$ million])</li> </ul>
 <b>Customer engagement</b>	15%	<ul style="list-style-type: none"> <li>Satisfied customers (% of total customers responding to company's survey)</li> <li>Customer complaints (number received yearly)</li> <li>Flight delays (number and % total flights)</li> </ul>	<ul style="list-style-type: none"> <li>Customer data breaches (number)</li> <li>Comprehensiveness of data privacy policies (number of policies)</li> </ul>
 <b>Workforce and diversity</b>	15%	<ul style="list-style-type: none"> <li>Voluntary/involuntary turnover rate (% workforce)</li> <li>Women (% workforce, % management)</li> <li>Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>Employees taking part in the employee survey (% workforce)</li> <li>Gender pay gap</li> <li>Employees covered by collective bargaining agreements (% total)</li> </ul>





## Ports

Port logistics are complex given the high and growing volumes of goods they handle. And safety is of paramount importance to ensure smooth operations. Some ports operate in somewhat remote places, where they are important local employers, meaning they have a key role to play in their sphere of influence's economic development.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Safety management</b>	30%	<ul style="list-style-type: none"> <li>- LTIFR, including contractors</li> <li>- Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>- Comprehensiveness of occupational health and safety oversight</li> <li>- Number of accidents and incidents (trespassers for example)</li> </ul>
 <b>Communities</b>	30%	<ul style="list-style-type: none"> <li>- Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>- Breakdown of philanthropic contributions (%)</li> <li>- Project delays because of community opposition (number, duration in days, and estimated cost [in US\$ million])</li> </ul>
 <b>Customer engagement</b>	20%	<ul style="list-style-type: none"> <li>- Satisfied customers (% of total customers responding to company's survey)</li> <li>- Customer complaints (number received yearly)</li> </ul>	<ul style="list-style-type: none"> <li>- Customer data breaches (number)</li> <li>- Comprehensiveness of data privacy policies (number of policies)</li> </ul>
 <b>Workforce and diversity</b>	20%	<ul style="list-style-type: none"> <li>- Voluntary/involuntary turnover rate (% workforce)</li> <li>- Women (% workforce, % management)</li> <li>- Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>- Employees taking part in the employee survey (% workforce)</li> <li>- Gender pay gap</li> <li>- Employees covered by collective bargaining agreements (% total)</li> </ul>

## Roads

Road operators need to run profitable operations, while providing both value to their customers (through free services like tire inflation stations or restaurants) and keeping affordability in mind. The layout of the road, the type of coating (asphalt, concrete, other), and the operation of bridges or tunnels all influence safety. In addition, given often extensive networks, road operators must ensure communities benefit from their operations, through direct employment or other contributions.

Factor	Weight	Key performance indicators	Other performance indicators
 <b>Customer engagement</b>	30%	<ul style="list-style-type: none"> <li>- Satisfied customers (% of total customers responding to company's survey)</li> <li>- Customer complaints (number received yearly)</li> </ul>	<ul style="list-style-type: none"> <li>- Customer data breaches (number)</li> <li>- Comprehensiveness of data privacy policies (number of policies)</li> <li>- Average spend per user on ancillary facilities (restaurants, hotels, and so on) in US\$ million</li> </ul>
 <b>Safety management</b>	30%	<ul style="list-style-type: none"> <li>- LTIFR, including contractors</li> <li>- Number of fatalities (per 10,000 employees or million hours worked), including contractors</li> </ul>	<ul style="list-style-type: none"> <li>- Comprehensiveness of occupational health and safety oversight</li> <li>- Number of accidents (for workforce, contractors, and road users) and incidents (trespassers for example)</li> </ul>
 <b>Communities</b>	30%	<ul style="list-style-type: none"> <li>- Amount of cash contributions, employee volunteering, and in-kind giving (in US\$ million)</li> </ul>	<ul style="list-style-type: none"> <li>- Breakdown of philanthropic contributions (%)</li> <li>- Project delays because of community opposition (number, duration in days, and estimated cost [in US\$ million])</li> </ul>
 <b>Workforce and diversity</b>	10%	<ul style="list-style-type: none"> <li>- Voluntary/involuntary turnover rate (% workforce)</li> <li>- Women (% workforce, % management)</li> <li>- Average annual hours (number) and spend (US\$) per full-time-equivalent employee on training and development</li> </ul>	<ul style="list-style-type: none"> <li>- Employees taking part in the employee survey (% workforce)</li> <li>- Gender pay gap</li> <li>- Employees covered by collective bargaining agreements (% total)</li> </ul>

## Submit Feedback

You can submit your feedback [online](#), or by [email](#).

Please specify which sector you are commenting on when submitting feedback.

We would particularly like to hear from you regarding:

1. Which risks are missing or not relevant?
2. Which KPIs are missing, could be enhanced, or are not relevant?
3. What views do you have on the suggested factor weights for the environmental and social analysis?
4. Do you have additional feedback(s) on this document?

## Endnotes

<sup>1</sup> Events and issues are material for the ESG Evaluation when in our view they could meaningfully affect the entity's business operations, cash flows, legal or regulatory liabilities, access to capital, reputation, or relationships with key stakeholders and society more generally, either directly or through its value chain (upstream or downstream).

<sup>2</sup> We are mindful that some may be produced using different methodologies and scopes.

## Related Research

- [“The ESG Risk Atlas: Sector And Regional Rationales And Scores.”](#) published July 22, 2020
- [“Our Updated ESG Risk Atlas And Key Sustainability Factors: A Companion Guide.”](#) published July 22, 2020
- [“Environmental, Social, And Governance Evaluation: Analytical Approach.”](#) published Dec. 15, 2020
- [“How We Apply Our ESG Evaluation Analytical Approach: Part 2.”](#) published June 17, 2020

## Analytical Contacts

### Bertrand Jabouley

Sustainable Finance  
Singapore  
+65-6239-6303  
bertrand.jabouley  
@spglobal.com

### Luisina Berberian

Sustainable Finance  
Madrid  
+34-91-788-7200  
luisina.berberian  
@spglobal.com

### Philip Baggaley

Corporate Ratings  
New York  
+1-212-438-7683  
philip.baggaley  
@spglobal.com

### Julyana Yokota

Infrastructure Ratings  
São Paulo  
+55-11-982-792-84734  
julyana.yokota  
@spglobal.com

### Paul Munday

Sustainable Finance  
London  
+44-20-7176-0511  
paul.munday  
@spglobal.com

### Kurt Forsgren

Sovereign IPF Ratings  
Boston  
+1-617-530-8308  
kurt.forsgren  
@spglobal.com

### Trevor D'Olier-Lees

Infrastructure Ratings  
New York  
+1-212-438-7985  
trevor.dolier-lees  
@spglobal.com

### Patrice Cochelin

Sustainable Finance  
Paris  
+33-1-4020-7325  
patrice.cochelin  
@spglobal.com

### Florence Devevey

Sustainable Finance  
Paris  
+33-1-4075-2501  
florence.devevey  
@spglobal.com

### Michael Ferguson

Sustainable Finance  
New York  
+1-212-438-7670  
michael.ferguson  
@spglobal.com

### Bernard de Longevialle

Sustainable Finance  
Paris  
+33-1-4075-2517  
bernard.delongevialle  
@spglobal.com

### Hans Wright

Sustainable Finance  
London  
+44-20-7176-7015  
hans.wright  
@spglobal.com

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