White Paper

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The Value of Accounting for and Reporting Scope 3 Emissions

Supply Chain Accounting is a Must to Advance the Mission

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For the best of reasons

Introduction

Human activities have increased the global mean temperature by approximately 1.0°C since the industrial revolution. This anthropogenic global warming is currently increasing at approximately 0.2°C per decade due to the ongoing emission of carbon dioxide and other Green House Gases (GHG). It is well accepted within the scientific community that, by the year 2050, global carbon dioxide emissions must be reduced by as much as 85 percent of the total released in the year 2000 to limit global mean temperature increase to 2.0°C above pre-industrial levels. Temperature rise above this level will produce increasingly unpredictable and dangerous impacts for humans and the environment. As a result, the need to accelerate efforts to reduce anthropogenic GHG emissions is increasingly urgent.[1] To achieve the necessary reduction, public and private sector organizations must take action in an expeditious and unprecedented manner. Considering the response to the COVID-19 crisis, we know that it's possible to undertake this type of drastic change in a rapid manner, on an individual, organizational, national, and global scale.

The only way to achieve the required reduction in GHG emissions is to change daily operations at the organizational level and influence others to do the same. In the lexicon of GHG accounting, direct emissions are those from sources that are owned or controlled by the reporting organization. Indirect emissions are those that are the consequences of activities of the reporting organization but occur at sources owned or controlled by another organization. To achieve the needed reduction, organizations must evaluate their entire supply chains and produce user boundaries for opportunities to change. Failure to do so will result in inadequate reduction of GHG emissions and the world for future generations may look very differently than it does today. Noblis has extensive experience helping the federal government calculate their scope three emissions and design reduction strategies.

GHG Emissions Classification

Direct and indirect emissions are further classified as one of three "scopes." Scope 1 are direct emissions that occur from sources controlled in an organization such as emissions from the combustion of fuel in boilers, furnaces, or vehicles. Scope 2 are indirect GHG emissions associated with the production of electricity or other sources of energy that are purchased by the organization. Although scope 2 emissions are not generated by the reporting organization, they are accounted for in the GHG inventory because they are a result of the organization's energy use.

Scope 3 emissions include all sources not within an organization's Scope 1 and 2 boundaries. Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain. Scope 3 emissions, also referred to as value chain emissions, often represent the majority of an organization's total GHG emissions.[2] Scope 3 emissions occur from sources owned or controlled by other entities in the value chain including materials suppliers, third-party logistics providers, waste management contractors, travel suppliers, lessees and lessors, franchisees, retailers, employees, and customers. Examples include production of purchased products, transportation of purchased products, or use of sold products. Scope 3 emissions are associated with either upstream processes such as the acquisition of raw materials, goods, or

1 IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press

2 US Environmental Protection Agency, EPA Center for Corporate Climate Leadership, https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance#:~:text=Scope%201%20emissions%20are%20direct,boilers%2C%20furnaces%2C%20vehicles).

services as well as downstream processes including the use of the goods or services produced by the reporting organization (Figure 1). The Scope 3 emissions for one organization are the Scope 1 and 2 emissions of another organization.

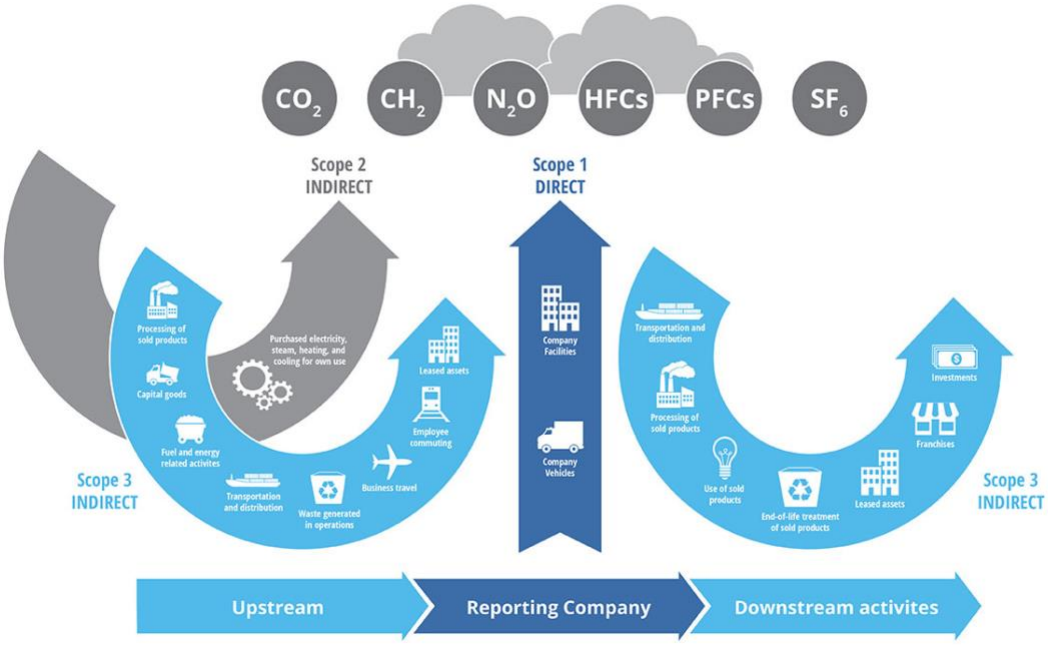

Figure 1. Scope 1, 2, and 3 Emissions (Source: Dewberry)

Value-Chain Emissions Assessment

The crux of the issue is that according to the GHG corporate protocol, all organizations should quantify and report Scope 1 and 2 GHG emissions but not those classified as scope 3[3], yet Scope 3 represents the majority of an organization's emissions. A complete GHG inventory therefore includes Scope 1, Scope 2, and Scope 3.[3] While an organization has control over its direct emissions, it has influence over its indirect emissions. It is critical that organizational leadership exercises that influence to ensure GHG reduction goals are met. Because the global carbon reductions needed are so large, the only way they can be achieved is if public and private sector organizations move to measure and include Scope 3 in their reduction targets.

Since GHG accounting started in the early 1990s, organizations have focused on emissions from their own operations. More recently, organizations increasingly understand the need to also account for GHG emissions along their value chains and product portfolios to comprehensively manage GHG-related risks and opportunities. This shift has been influenced by the mission of the Intergovernmental Panel on Climate Change (IPCC) that prepares comprehensive assessment reports on climate change, its causes, potential impacts and response options. As GHG accounting expertise has grown, so has the realization that significant emissions – and associated risks and opportunities – result from value-chain activities not captured by Scope 1 and Scope 2 inventories. By developing a Scope 3 inventory, an organization can better understand the overall emissions profile of their

3 Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, P. Bhatia, C. Cummis, A. Brown, D. Rich, L. Draucker, H Lahd, (World Business Council for Sustainable Development WBCSD, 2011)

upstream and downstream activities and therefore have a broader impact in the GHG reduction efforts. The Scope 3 data provides the organization with an understanding of where potential emission reduction opportunities lie in the value chain. Scope 3 inventories also provide detailed information on the relative size and scale of emission-generating activities within and across the various Scope 3 categories. This information may be used to identify the largest emission sources in the value chain and focus efforts on the most effective emission-reduction opportunities.[3]

Conclusion

Engaging value chain partners in GHG management is necessary to reach the 85 percent emissions reduction target the scientific community says is necessary to avoid a global climate catastrophe. While the quantification and reduction of Scope 1 and Scope 2 emissions is necessary, it is not sufficient to make the necessary impact on the effects of GHG emissions. The Scope 3 inventory provides a quantitative tool for an organization to identify and prioritize emissions-reduction opportunities along their value chain. Organizations must be willing to influence vendors and suppliers to do their part to reduce GHG emissions or make the hard decision to break ties with them. It will only be through broad and rigorous Scope 3 emissions management that a meaningful impact can be made to reduce GHG emissions and alter the planet's current climate trajectory.

Noblis has years of experience calculating Scope 1, 2 and 3 emissions for the federal government and designing reduction strategies. For more on how Noblis experts are promoting sustainable and resilient mission solutions, visit our website at noblis.org/energy-environment/.

Doing What's Right and What Works for Our Clients

Noblis fosters a culture of collaboration. Our research centers drive scientific outcomes to address our Nation's most pressing challenges, and our centers of excellence deliver technology and strategic management domain authority. These centers connect our staff so that they may better serve our clients. Their focus areas span the needs of federal organizations and are easily accessible to our client-facing teams, ensuring the right capabilities, people, tools and expertise are applied to our work. This enables us to offer every client the best solutions to fit their needs and challenges.

About Noblis

We exist to enrich lives and make our nation safer with our shared passion for excellence and innovation. For more than 25 years, Noblis has been an innovator within the federal government, committed to solving the challenges of today and investing in the missions of tomorrow. As a nonprofit, Noblis works for the public good, bringing together the best possible capabilities, including science and technology expertise and solutions, in an environment of independence and objectivity to deliver enduring impact on federal missions.

Working with Us

Government agencies can access Noblis through a variety of contracting mechanisms. We have several contracts in place and available to Government agencies. We are also a GSA Schedule holder.

For a full list of vehicles, visit **noblis.org/contracting**, call us at 703.610.2000, or email **answers@noblis.org**.

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