

Voices

Aligning Purchasing Power with Sustainable Production and Consumption

Governments and corporations have an opportunity to lead the transition toward sustainable consumption and production by shifting their purchasing power toward environmentally responsible supply networks. But this will require reliable information on complex global supply networks. What information and decision-support tools do governments and corporations need to galvanize this transition?

Credible ESG Data Disclosures



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The protection of labor rights, health and safety, and the environment across the global value chain of multinational companies—especially in the least developed economies—is contingent on the credibility of environmental, social, and governance (ESG) data made available to regulators and investors. According to the UN Sustainable Stock Exchanges initiative, the number of exchanges that require mandatory ESG disclosures from listed companies has more than doubled to 24 in the last 5 years. Moreover, the UN Conference on Trade and Development estimates investments of up to US\$1.3 trillion in ESG-themed financial products, such that investment funds that consider ESG were valued at US\$29 trillion globally in 2018. The recent push for ESG integration in stock exchanges and companies is necessary for achieving Sustainable Development Goal (SDG) 12.6, but a lack of consistency and transparency in the data collection for ESG disclosures by companies makes them incomparable and open to greenwashing. It is therefore imperative to establish ESG data-acquisition tools for companies to monitor, accumulate, and store high-quality, immutable data. Sustainability scientists and engineers have an essential role to play in creating such systems by building on advances in life-cycle methods to quantify the environmental and socio-economic impacts of production systems. State-of-the-art sensing technologies, integrated data repositories, and immutable data structures that minimize human error and bias can improve investor and regulator confidence in reported ESG indicators. Such data-acquisition and management systems will enable sector-specific benchmarking of companies and will be a first step in establishing harmonized ESG disclosures to monitor global supply chains.

Spending to Build Back Better



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The response to coronavirus disease 2019 (COVID-19) has seen unprecedented public spending. As economies reopen, we can expect even higher sums of public money to be spent on rebooting consumption and upgrading public infrastructure and services. To ensure this spending does in fact “build back better,” governments must tie their spending to sustainability targets or conditions. To put these targets into play, however, public entities must issue tenders that emphasize the performance or outcomes that they seek. For example, instead of prioritizing urban road upgrades specifically, tenders can ask for low-carbon and climate-resilient mobility solutions more generally. Innovative suppliers could then respond with designs such as permeable road surfaces to reduce flooding, urban gardens to improve aesthetics and demarcate pedestrian zones, or increased space for non-motorized traffic. The advantage of performance-based tenders is that they enable suppliers at the forefront of green innovation to propose solutions that procurers would be hard pressed to generate on their own. The EU’s Pre-Commercial Procurement arrangement goes even further and allows public entities to procure and field test early design prototypes of green and digital technologies. To make all this a reality, policymakers and investors need reliable information on the financial performance of sustainable public infrastructure. IISD designed the Sustainable Asset Valuation (SAVi) methodology to simulate the costs of both risks and externalities or the environmental and social costs of public assets. SAVi uses a combination of system dynamics and project finance modeling to provide holistic valuations of the types of infrastructure procurement that are at the core of both the post-pandemic recovery and the UN SDGs.

Not Reaching Escape Velocity



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Although global warming might be one of the greatest challenges of our time, I am more pessimistic than ever about meaningful advancement in environmental sustainability. The reasons are twofold: (1) consumers in developed countries are, by and large, not willing to pay more for sustainability, and (2) consumers in developing countries are striving for middle-class lifestyles that involve more carbon emissions. When consumers are not willing to “play ball” (and they are not despite what they say to pollsters in interviews), companies and governments are powerless. The French government realized this during the *gilets jaunes* movement, and every executive will tell you the same thing about her customers when not in a public forum. No company will sell what consumers are not willing to buy. Although most environmentalists call for behavioral changes, convincing a world accustomed to “more” that “less” is required is a losing proposition. So, we hear calls for corporations, investment funds, and governments to “do something.” Unfortunately, as a result of consumers’ and citizens’ preference of economy over sustainability, most, if not all, corporate and government pronouncements amount to little more than greenwashing or wishful thinking. Although the price of renewables is decreasing, their adoption rate is still insufficient, and they do nothing to reduce the carbon already in the atmosphere. Instead, I think the solution lies in the development of technology for carbon capture and storage, including direct air capture. Admittedly, this family of technologies is not yet operational at scale. However, some variant seems to be the only way to avoid the dire consequences of global warming.



e-Procurement Data Analytics



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Sustainable procurement involves the integration of economic, environmental, and social dimensions into purchasing considerations. Despite its significance in promoting sustainable development, sustainable procurement has yet to become an established practice. I attribute this mainly to three factors: practitioners' perception of it as a resource-intensive process, doubts among procurement managers about its effectiveness in improving sustainability performance, and a lack of supporting legislative mandates.

Overcoming these barriers to sustainable procurement requires that suppliers not only be mandated to follow certain sustainability norms but also be given preferential treatment, incentives, or subsidies to implement sustainability and share relevant information. Electronic procurement (e-procurement) and data analytics can galvanize this transition. For example, India's Government e-Marketplace provides government officers with online tools to filter and select goods that are either compliant with preferential market access or manufactured by small-scale industries.

e-Procurement data and analytics can facilitate efficient analysis of spending, costs and benefits, supply sources, and the development of smart contracts. Such detailed analysis can allow us to arrive at the most economically advantageous tender from the perspective of value for money. Further, algorithms can be used for analyzing e-procurement metadata and pre-empting potentially corrupt or negligent practices in public procurement.