### Measuring and Reporting Sustainability: The Role of the Public Sector

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The Earth Institute Research Program on Sustainability Policy and Management provides a rigorous analytic base to help inform sustainability decision-making. Our research addresses the fundamental issues facing professionals and policy makers implementing sustainability strategies. We seek to better understand the mechanisms behind sustainability management, in order to develop and promote more effective public policies and organizational practices. We analyze sustainability strategies and initiatives, examine methods of valuing sustainability practices, and study the impact of policies that stimulate sustainability innovations and trends. The goal of the program is to develop models to overcome barriers to institutionalizing sustainability in organizational operations. We aim to hasten the integration of sustainability principles in the management of organizations by providing the data necessary for decision-making.

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### Measuring and Reporting Sustainability: The Role of the Public Sector

#### **Executive Summary**

The public sector plays a critical role in advancing and supporting sustainability metrics, measurement, and reporting. It can be useful in mandating and monitoring various forms of sustainability reporting, and in guiding the development of specific information that private businesses, as well as public and non-profit organizations, ought to measure and communicate externally. Government must also establish and maintain national indicators of sustainability including measures of "green jobs" or the "green economy."

Over a dozen countries require some type of mandatory sustainability reporting. France, South Africa, India and Sweden, for example, are experimenting with policies of varying strength and requirements to both encourage sustainable practices and ensure the public has accurate and adequate disclosures about material sustainability issues. While these efforts are relatively recent, mandatory measures are growing and their impacts, at early analysis, seem positive. Studies have found that mandated reporting influences management practices, with larger impacts in countries with stronger enforcement and assurance mechanisms. Integrated reporting – the next stage of

sustainability reporting – is likely to have an even greater effect on management decisions because it raises environmental issues up to the same level as financial disclosures.

In the United States, sustainability reporting is not required, although there are many voluntary efforts at the company, industry, and city levels, as well as other efforts to evaluate environmental, social, and governance issues. To advance global progress on sustainability, the U.S. must move towards environmental disclosure mandating and sustainability reporting. Before we can do that, however, we need consensus on what to measure and report, which is no easy task. A federally-led initiative to help determine the metrics that organizations would be required to disclose can assist in this process, much like the decades-long process that resulted in generally accepted accounting principles. The U.S must also implement and enforce programs to measure the performance of the country itself. To date, this has included measuring "green jobs", which it should continue doing, but it must also look to other standard metrics and commit to measurement and disclosure of these indicators.

#### Introduction

The advancement and support of sustainability metrics, measurement, and reporting in the United States is rooted in the public sector, which plays a crucial part in mandating, monitoring, and guiding the development of sustainability management. We define sustainability management as the economic production and consumption that minimizes environmental impact and maximizes resource conservation and reuse. These principles are built on an understanding of the importance of environmental sustainability in economic progress and development as well as the wellbeing of humanity. Increasingly, leaders and managers must realize and address the environmental implications of their business processes, through the implementation of sustainability management practices.

In order for the measurement, reporting, and communication of sustainability to occur efficiently and systematically, it is important that government establish and maintain indicators of sustainability.

#### Why is mandated sustainability reporting necessary?

This includes regulating and monitoring various forms of sustainability reporting, guiding the development of specific information that private businesses, as well as public and non-profit organizations, ought to measure and communicate externally. It also includes direct measures of "green jobs" as proxy measures for the "green economy." This white paper describes the role of government in sustainability measurement and metrics, first examining mandated sustainability reporting as it exists in other countries, and then comparing that to the state of sustainability reporting in the U.S. Finally, we look at the role of the U.S. federal government in measuring sustainability at the national level, and present an argument for an expanded role.

#### Mandated Corporate Sustainability Reporting

Why is mandated sustainability reporting necessary? One of the most important outcomes of the move towards mandated disclosure of sustainability metrics is that it increases the importance of environmental issues reviewed by sustainability officers, environmental health and safety managers, corporate social responsibility managers and governmental relations managers. It can even bring those officers to parity with chief compliance officers, chief operations officers, and chief financial officers. When this occurs, sustainability is inevitably more directly linked to core business decisions and values. It can also benefit from the support of more established processes and teams in the financial and compliance functions. When sustainability becomes part of regular business and regulatory compliance functions, increased funding and management attention is dedicated to it.

This is not to minimize the importance of motivated companies whose commitment to sustainability precedes government regulation. We know these companies are leaders in the field, but mandated disclosure sets rules and establishes a level playing field, allowing established leaders and innovators to clearly demonstrate their competitive advantage. There will also always be companies who will not act established. until mandates are Instituting mandatory indicators could overcome a company's reluctance to disclose performance and would ensure comparability (Searcy, 2012, 251). Regulations set the minimum bar that can help organizations improve performance as organizations and jurisdictions seek to improve their reported metrics over time. Required reporting is a prerequisite to any serious effort at improving performance.

Mandated reporting can also lead to innovative measurement and assessment tools as and regulators adapt to organizations new requirements for transparency and assurance. Even for organizations who already voluntarily publish sustainability reports, their procedures for data collection, measurement and assessment will likely need to be refined to meet standardized verification rules. They may need to create new tools, programs and processes to meet the expectations set by government regulation.

### The Growth of Mandatory Reporting Globally

Countries around the globe, including many developing countries, are beginning to experiment with legislation that requires sustainability reporting and disclosures of environmental risks. A 2013 report by the Global Reporting Initiative (GRI), the United Nations Environment Programme, KPMG Climate Change & Sustainability Services, and the Centre for Corporate Governance in Africa examined the growth of mandatory reporting measures globally. They found that in 2006, 58 percent of the 60 policies across 19 countries and regions regarding organizational disclosure of sustainability were mandatory (with the rest being voluntary efforts for public disclosure of sustainability information), but in 2013, 72 percent of the 180 policies across 45 countries and regions were mandatory (2013, 8). This represents a significant trend in the field that going forward, more and more sustainability reporting policies will be issued by the government as mandatory. They also note this trend is likely to continue and call out the need for standardization: "As reporting organizations voice their concerns about the various frameworks they may use or need to comply with, there will be increasing calls for the alignment and harmonization of frameworks" (2013, 9).

Many of these laws pertain only to specific environmental issues, such as climate change, or apply only to state-owned enterprises or specific industries, like the mining or financial sectors.

## Required reporting is a prerequisite to any serious effort at improving performance.

In the United States, sustainability reporting is not required, although there are many voluntary efforts at the company, industry, and city levels to evaluate environmental, social, and governance issues. Internationally, however, over a dozen countries require some type of mandatory sustainability reporting.

Countries that specifically target state-owned companies for reporting include Brazil, China, France, India, Russia, South Africa, Spain, and Sweden (GRI et al., 2013, 17). Still, other, more comprehensive, regulations are more far-reaching. The following examples are just a few of these efforts at mandated reporting.

France is considered a leader in corporate sustainability reporting. Since 2001, France has required public companies to report on social and environmental impacts in their annual reports. In 2010, it passed a new law, Grenelle II, expanding the entities that must adhere to this requirement. It now extends beyond listed companies on French stock exchanges to subsidiaries of foreign companies that are listed in France and unlisted companies with subsidiaries located in France. This new requirement is significant in that it is not limited to domestic companies, and could therefore have serious impacts on many international companies that operate in France. The regulations, which will be phased in by company size, also require that companies have their data verified by an independent third party auditor (Ernst & Young, 2012, 1-2). This new law is particularly strong, requiring disclosure of up to 42 environmental, social and governance indicators.

In China, the number of sustainability reports increased considerably after recent government policies were enacted to build up sustainability reporting and disclosure. This increase is chiefly on environmental sustainability factors, rather than

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other measures of sustainability. The 2007 Environmental Information Disclosure Act requires public disclosure of compliance with regulations, requiring reporting of any serious environmental pollution releases or failure to comply with requirements. In addition to this mandatory component, the act encourages companies to voluntarily disclose environmental information, including emission and pollution levels, reduction targets, resource use, investment in environmental technologies, and other related environmental programs. The government provides incentives for compliance with the voluntary programs, including priority for grants (GRI et al., 2013, 57). China's stock exchanges, in partnership with government agency initiatives, also encourage, and in some cases require, disclosure of environmental and corporate social responsibility information. In 2008, China adopted the Green Securities Policy, which sought to link environmental and financial policies, and was codeveloped by the Ministry of Environmental Protection and the China Securities Regulatory Commission. It requires Chinese listed companies in 14 highly polluting industries that trade on the Shenzhen Stock Exchange and the Shanghai Stock Exchange to report certain environmental information to the public (Wang and Bernell, 2013, 343-344). As a result, in 2012, over 1,600 sustainability reports were published, a 20 fold increase over 2007. However, there is still very little auditing of these reports, with only 5% assured by third parties, and the quality of the reports remains low, often with little or insufficient quantitative data on specific metrics like greenhouse gas emissions or energy efficiency (GRI et al., 2013, 27-28). Despite formal requirements, pollution levels these throughout China continue to grow, and there is clearly a large gap between policy intent and implementation.

In India, in 2011, the Ministry of Corporate Affairs issued revised National Voluntary Guidelines on Social, Environmental, and Economical responsibilities of Business. While the efforts themselves are voluntary, they provide broad principles for businesses to follow and are complemented by the Securities and Exchange Board of India's 2012 requirement that the 100 top prepare "Business Responsibility companies Reports" requiring responses to each of the Voluntary Guidelines. Requirements for other companies will be phased in over time. Also in 2012, India passed its first law on sustainability reporting, the 2012 Companies Bill, which requires companies to develop corporate social responsibility policies and to spend two percent of the previous three years' average net profit on implementing those policies (German Society for International Cooperation et al., 2012, 26-27). This funding requirement is a unique approach to environmental reporting and management.

We see additional evidence of reporting requirements throughout the world. South Africa has emerged as a leader in integrated reporting, which incorporates sustainability and other nonfinancial issues with financial information in a single report. In 2002, South Africa first required, through the King Code on Corporate Governance, that all companies report annually on social, transformation, ethical, safety, health and environmental management policies and practices, and in 2009, updated its regulation to require companies to produce an integrated report with this information (GRI et al., 2013, 35).

The European Union has also been active in sustainability reporting, as it is incorporated into broader corporate social responsibility their disclosure requirements and rules. For example, the 2003 EU Modernisation Directive required that European companies include non-financial information in their annual report if it is "necessary understanding of the for an company's development, performance or position" (GRI et al., 2013, 51). The directive leaves the decision of materiality up to the company, and does not go so far as to mandate non-financial information disclosure across the board. In 2013, however, legislation was proposed that would require all large companies in the EU to disclose policies, risks and results relating to environmental, social, and governance issues. If a company did not believe an area was material to them, they would be required

to specifically explain the lack of reporting on that issue (GRI et al., 2013, 30).

Elsewhere in Europe, Denmark's Corporate Social Responsibility (CSR) reporting is voluntary, but large companies and state-owned businesses must take a position on CSR and disclose it in their annual report. If they do not have a sustainability policy, they must explicitly say that in the report. This law, while not an outright requirement to disclose specific sustainability initiatives, can serve to encourage organizations without sustainability programs to establish them (GRI et al., 2013, 29). In addition to disclosing Corporate Social Responsibility policies, in 1996 Denmark established a Green Accounting Scheme, mandatory for large businesses and heavy polluters to publicly disclose their environmental impacts (material input, emissions and waste) (GRI et al., 2013, 29). Subsequent analyses of the Green Accounts in Denmark found that the public had little confidence in the published accounts, and so while about half of the complying firms achieved environmental improvements, they were failing to effectively communicate those results (Jorgensen and Holgaard, 2004, 9). The law was later strengthened to focus on more holistic accounting, increased detailed and guantified information, as well as improved communication. Revisions of the

law also required forward-thinking disclosures, such as environmental policies and pollution prevention programs. It is not simply enough to report their impacts; Denmark wants its companies to show leadership and management-level commitment to sustainability principles (Jorgensen and Holgaard, 2004, 14-17).

Reporting on greenhouse gas emissions is one of the most common sustainability metrics, although this is only one aspect of the global sustainability challenge. For example, in June 2012, the UK Department for Environment announced that it was requiring all companies listed on the Main Market of the London Stock Exchange to report their greenhouse gas emissions in their annual reports beginning October 1, 2013. The UK is the first country to require greenhouse gas emissions reporting for all companies, regardless of size or industry. Methodologies for calculation must be included and any missing information must be noted with an explanation of why it could not be obtained. The measure is required to include "at least one ratio which expresses the guoted company's annual emissions in relation to a quantifiable factor associated with the company's activities," commonly referred to as carbon intensity (UK Government, 2013).

While these efforts vary from country to country, it is possible to detect some broad trends:

- 1) efforts are evolving over time, strengthening in each iteration, working towards more quantified, verified, and stakeholder-useful information as well as increasingly requiring the disclosure of information to demonstrate that sustainability is being integrated into core management decision-making;
- 2) policies are collaborative efforts between different public agencies and stock exchanges, using a variety of tools at the country's disposal;
- 3) many efforts are still industry specific; and
- 4) policies typically mandate general disclosure of environmental impact, but the state of this field is not yet at the point where countries are specifying a set of indicators that are universally mandated. Most of the focus is on corporate behavior, although we see some efforts to improve the sustainability of government operations and a growing use of comprehensive urban sustainability plans. These plans often require periodic reporting of progress toward specific sustainability goals.

#### The Impact of Mandated Reporting

What is the impact of these efforts? In 2012, Harvard Business School's George Serafeim and Ioannis Ioannou of London Business School looked at data from 16 countries that have adopted some level of mandatory corporate sustainability reporting and compared those to 42 countries that had not. While much of their analysis focused on the impact of social and governance factors, they found that for companies that began to disclose sustainability practices only after a sustainability reporting law was enacted, their energy use, waste and water consumption declined significantly (5). They also found that mandated corporate sustainability reporting does affect management practices, and that the impact is larger for countries with stronger enforcement mechanisms and where assurance of the disclosures is more frequent (laonnou and Serafeim, 2012, 28). They also predict that integrated reporting would have an even greater effect than mandated reporting alone. Integrated reports bring environmental issues up to the same level as financial disclosures and, according to Serafeim, "forces companies to explain the relationship between financial and nonfinancial measures and how managing these nonfinancial issues contributes the long-term profitability the to of company" (Blanding, 2011).

A 2010 study by researchers at Uppsala University looked at the impact of Sweden's 2007 requirements for state-owned companies to develop sustainability reports using GRI guidelines. They found that the impact varied based on the companies' previous experience in sustainability: those that hadn't ever produced sustainability reports went through a more extensive change process than those that had. The report, commissioned by the Swedish Ministry of Enterprise, Energy and Communications, concluded, "sustainability reporting requirements have first and foremost improved procedures for reporting on sustainability issues rather than bringing about far reaching changes in practical sustainable activities. This leads us to the conclusion that sustainability reporting primarily strengthens and improves reporting procedures, whereas the step to changes in practical sustainability activities is a long one" (Borglund, Frostenson and Windell, 2010, 19). They found that general awareness about sustainability increased and that this knowledge is a critical part of the process ultimately leading to longterm change. The requirements are thus setting the stage for transitional behavior by companies. The study also concluded that state-owned companies were adapting the GRI guidelines to meet their own needs further serving as a foundational condition of strategic sustainability planning.

#### Sustainability Reporting in the U.S.

When compared to these countries, the United 2010). The guidance, which covers three areas: States lags behind on mandated sustainability regulatory risks, indirect effects of regulation or reporting. In the U.S., businesses themselves have business trends, and physical impacts, was in led the effort to encourage action by federal response to business pressure to clarify climate risk regulators. In 2010, the Securities and Exchange information in corporate disclosures. According to Commission (SEC) provided guidance on disclosing Ceres, a network of investors, companies and public climate change risk in existing requirements. This does not constitute a new institutional investors representing over \$7.6 trillion requirement, but was issued to provide clarity and supported a petition to the SEC requesting that it ensure that the rules are followed consistently (SEC, issue this guidance (Ceres, 2014, 1).

disclosure interest groups committed to sustainability; over 100

#### A U.S. National Commission on Sustainability Metrics

Requiring sustainability reporting is a critical step towards advancing sustainability, but before that can happen we need consensus on what should be reported. Although many of the above-mentioned countries have adopted some forms of mandatory reporting, they universally fail to identify a set of indicators that individual entities have to report on. Therefore, we believe the logical next step for the U.S. is federally-led action to help determine the metrics that organizations would be required to disclose. Like the decades-long process that resulted in generally accepted accounting principles, we believe the process to settle on a set of mandated generally accepted sustainability metrics, including standard methods of collection, reporting, and verification, will take years. First, businesses, stakeholder groups and academics must come to agreement on a recommended set of core sustainability metrics, and those metrics must be selected based on the current state of environmental, earth and management sciences. Second, the federal government must develop policy tools and regulations needed for compliance, monitoring, and enforcement of mandatory sustainability reporting.

The U.S. federal government can play a role not only in mandating and monitoring the reporting of sustainability metrics, but first can serve as the forum to bring together interested stakeholders to develop consensus around a set of generally accepted metrics. To ensure their adoption and widespread use, the federal government can use its convening power to generate momentum for a standardized set of metrics. The absence of such an authoritative moderator of the discussion stunts the drive to develop robust, universal sustainability metrics.

The federal government, through the Department of Commerce, for example, could establish a National Commission on Sustainability Metrics. Such a Commission could include a variety of federal agencies, including the Environmental Protection Agency, Department of Energy, Department of Department of Defense, Labor, Office of Management and Budget, Securities and Exchange Commission, and the Office of Science and Technology Policy, and would serve to bring together a coalition of leading experts from top universities, non-profit organizations, advocacy groups, think tanks, and industry to lead a coordinated national effort to develop and build consensus around a set of mandated, generally accepted sustainability metrics. Such a commission would bring together the top minds in the field for information sharing, collaborative research, and outreach relating to the importance of this critical field. The federal government has a unique ability to assemble top leaders in the field to communicate and coordinate their activities across disciplinary, organizational, and geographic boundaries.

# The U.S. federal government has this key role to play.

The commission would be an authoritative and potentially objective moderator of the discussion on sustainability metrics. Academia, corporations, think tanks, environmental interest groups, and others would be key stakeholders in developing metrics, but none can have the final word. The U.S. federal government has this key role to play. Analyses developed by experts would form the basis for recommendations to a national commission, but this commission's report would subsequently propose legislation that could serve as the final authority on sustainability metrics. The commission would develop a recommended set of nationally mandated metrics, a defined reporting framework and requirements, and a detailed plan to implement the collection, auditing and reporting of these indicators. The commission would then advise on proposed legislation, policy tools and regulations to create and enforce mandatory measurement and reporting of generally accepted sustainability metrics.

#### An Historical Example: Generally Accepted Accounting Principles

The evolution of sustainability reporting can be compared to that of generally accepted accounting principles (GAAP). There was a time when financial accounting was not uniform, nor expected, of all organizations. In the 1930s, following the stock market crash of 1929, the American Institute of Accountants began a long process to establish standard accounting principles, what ultimately became known as GAAP. GAAP focused on governing how financial statements are organized and presented. The Financial Accounting Standards Board (FASB) is the organization in charge of overseeing the development of new standards and ultimately issuing the final statement when a new standard is being addressed. Currently, each country has their own set of accounting standards, but this has become problematic with the globalization of companies and the exponential increase in financial statement workloads to accommodate reporting for multiple nations. The International Accounting Standards Board (IASB) is currently working with FASB to create a single, high-quality set of standards to be used on a global scale for financial reporting purposes, and is set to take place in 2014. It would eventual replace GAAP in the U.S.

The implementation of GAAP and the creation of the FASB did not come quickly or easily, much like the early challenges we are observing today with sustainability reporting. Although the standardization process began in the early 20th century, it wasn't until the 1970s, with the onset of a growing global economy, that attention focused on a set of global accounting principles. In the following decades, the International Accounting Standards Board began to create a set of standards, and have very recently started to coordinate with the FASB in regards to reaching converging goals. It is likely that sustainability reporting will follow a similar timeline of slow progression towards a common universal standard. However, with the advancement of the field of sustainability, accelerated research, and more enhanced awareness, it is possible that a similar process could take less time, if we take the time to learn from the process that brought GAAP to where it is today.

#### Measuring the Green Economy

Another role for the U.S. federal government in sustainability measurement is the development of local, state, and national sustainability indicators. It will be important to aggregate the various efforts at the individual, corporate, and city-level efforts up to a national level to understand the environmental performance of the U.S. as nation.

It is safe to say that many governments and organizations share the goal of a "greener economy", but without proper collective action and a global consensus on how to achieve this, a transformation will be difficult. The role of the government, in this case, is to focus on large-scale, environmental innovation to lead global transformation towards sustainability. This could arguably begin with a global standard for environmental performance. In order for a "green economy" to emerge, a combination of top-down regulations and policies with bottom-up, incentivized solutions must be established. International efforts that define patterns for green entrepreneurship and green jobs, in combination with policy interventions to promote it, can produce a proper base for employment growth (Farinelli 2011). A green economy can be a sustainable one. One metric to measure a green economy, one that has recently received attention by economists and environmentalists is "Green GDP", which attempts to account for the value of nature on an equal footing as the market economy. But, problems arise with measuring nature without existing market indicators of its value or a general consensus between ecological and economic theories (Boyd 2007).

Another example of a national sustainability metric was the Labor Department's effort to measure and report on green jobs. Unfortunately, this very important project was suspended in the spring of 2013 due to the budget reductions mandated by the sequestration process. This effort should be restored immediately, and other aggregate measures of sustainability at the macro level need to be developed and implemented.

Why is it so important to measure green jobs? Green jobs can be used as a proxy measure for the green economy, and we believe that the green economy is the key to a sustainable future. Measuring sustainability performance at the national level can help us understand how we are progressing and spur action to make changes. However, as we've noted, measuring sustainability is difficult, and because sustainability cuts across industries and sectors of the U.S. economy, defining the green economy (and green jobs) is a challenge. The United Nations Environment Programme defined green jobs as those that "protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high efficiency strategies; decarbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution" (UNEP, 2008, 3). However, not all green jobs are equal in their environmental impact and questions arise about where thresholds exist to define "green" jobs.

Where the bar is set substantially changes the size and scope of the green economy. Some businesses only spend part of their time on green practices or products, making it especially difficult to measure. Similarly, some individuals work on green projects as only a portion of their responsibilities. Furthermore, industries and activities that help green the economy are harder to define and capture than easily identifiable ones such as energy auditing or solar manufacturing. For example, many of the new technologies and process shifts that will yield environmental benefits will occur in existing companies and industries, and so are difficult to separate out when attempting to measure the green economy or the jobs associated with that work

### Why is it so important to measure green jobs?

(UNEP, 2008, 36). How should these be counted when looking at the green economy? Additionally, differences in definitions exist over whether or not to include "process" jobs that make a business greener regardless of whether its output is green (Pollack, 2012, 5). For all of these reasons, isolating and counting green jobs is problematic, yet necessary to make informed short- and long-term policy and business decisions.

The U.S. Bureau of Labor Statistics (BLS) began measuring green jobs in 2010. This Green Jobs Initiative was an effort to gather data on "(1) the number of and trend over time in green jobs, (2) the industrial, occupational, and geographic distribution of the jobs, and (3) the wages of the workers in these jobs" (BLS, 2012a). Without a standard industry definition, the BLS developed a definition of green jobs based on the interpretations of academics, business leaders, and government actors. It defined green jobs as either: "(A) Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources, or (B) Jobs in which workers' duties involve making their production establishment's processes more environmentally friendly or use fewer natural resources" (BLS, 2012a). Across sectors, 333 industries have been identified through BLS as potential producers of green goods and services (BLS, 2012b).

According to the first Bureau of Labor Statistics survey data, in 2010, 3.1 million jobs in the U.S. were associated with the production of green goods and services, accounting for 2.4% of total U.S. employment in that year. Of the total, 2.3 million jobs were in the private sector, and 860,300 in the public sector (BLS, 2012c, 1). Using then-current BLS data, the Economic Policy Institute noted that 1-in-20 federal jobs was a green job, and 1-in-50 private sector jobs was a green job (Pollack, 2012, 5). The most recent report by the BLS on Green Goods and Services was released in September 2012 and is based on data from 2010 and 2011. Underscoring the idea of "shades of green" jobs, the BLS further subdivided into "all-green" jobs, meaning their core purpose is producing a green good or providing a green service. The report notes that roughly threefifths (or 1.9 million) of the 3.1 million green jobs in 2010 were in establishments that received all of their revenue from green goods and services (BLS, 2012e, 1).

These data indicate that we are moving toward a green economy. The 2010 data serves as a

benchmark from which we can measure our progress, but we can only do so if the Bureau of Labor Statistics resumes its Green Jobs Initiative. The federal government is the only entity capable of collecting this type of data across the whole of the U.S. and until we find other robust measures for national-level sustainability, green jobs will remain a key component of measuring our green economy. The federal government must continue to play this critical role, and expand its initiatives as our understanding of the green economy continues to expand.

#### **Moving Forward**

The federal government has a critical role to play in measuring sustainability at both the national and organizational level. To advance global progress on sustainability, the United States must move towards mandating environmental disclosure and sustainability reporting. Before we can feasibly do that, we need consensus on what to measure and report. We believe convergence on a set of generally accepted sustainability metrics will drive momentum towards a change in organizational focus from simply reporting, disclosure and transparency to uncovering real opportunity, competitive advantage financial and non-financial benefits of and sustainability. As sustainability becomes clearer and more accessible to a greater number of users, its uptake will expand. A federal effort to develop generally accepted standards can uncover decisionmaking tools and models that can be made available to a variety of stakeholders who are eager to incorporate the physical dimensions of sustainability into their management practices. Deciding what indicators to track and to report is a critical step in engaging organizations, particularly in the private sector, in the transition to a sustainable economy. With consensus on metrics, the U.S. government can then mandate disclosure, drawing upon the many examples of other nations that now require sustainability reporting.

The U.S must also establish processes and programs to measure the performance of the country itself. Complex sustainability challenges do not follow political borders or corporate boundaries. They cut across ecological and organizational systems, and so to truly understand our impacts, we must look at our performance at a higher level. It is not enough to know how well Wal-Mart performed in comparison to Target this year. We need to know how their collective impacts are improving or damaging the country's sustainability performance overall. We must understand how the individual actions of companies, nonprofits and governments in the United States are aggregated at a national level. To date, this has meant measuring green jobs, which it should continue doing, but it must also look to other standard metrics and commit to the measurement and disclosure of these indicators.

The federal government has critical roles to play in each of these processes. Top U.S. corporations and major U.S. cities already understand the importance of sustainability management, and as this momentum continues to build, we believe the U.S. federal government will emerge as a strong force in building a green economy that uses data-driven metrics to advance its sustainability goals. We fully expect to see the U.S. emerge as a leader in sustainability measurement.

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