

Chapter 12

Evaluating Sustainability on Projects Using Indicators

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ABSTRACT

The concept of balancing people, planet, and profit to maximize the absolute value of an enterprise is known as sustainability. It is concerned with the economic, social, and environmental effects of an enterprise in the long term. However, in practice, this definition does not provide companies with a meaningful framework to integrate sustainability into their projects, which by definition are one-off endeavors. Given this divide between the long-term nature of sustainability and the temporary nature of projects, companies have found it difficult to incorporate relevant sustainability indicators into project baselines. In this chapter, the authors examine a methodology for integrating sustainability into project baselines for consultants in the industrial and resource extraction fields. The methodology is comprised of an indicator set and a procedure for using the indicator set. This chapter's goal is to help standardize the sustainability process, making it easier to implement and more mainstream.

The objectives of this chapter are: (1) identify different sustainability indicator sets and their strengths and weaknesses; (2) explain what a multi-level analytical hierarchy project is and why it is important to integrating sustainability into such projects; and (3) state the steps in a procedure to integrate sustainability into project baselines.

INTRODUCTION

The 1987 World Commission on Economic Development, the Brundtland Commission (Brundtland, 1987), provided the most common working definition of sustainability as the balancing of people,

planet, and profit to maximize the absolute value of an undertaking. This definition forms the foundation of sustainability programs at the executive level in many corporations. A majority of major corporations now provide a public sustainability report, or a sustainability section in their annual

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report, that is organized around the Bruntland definition and outlines how the company incorporates sustainability in their operations.

One problem with the Bruntland definition is that it does not provide good day to day guidance for attempting to integrate sustainability into a company's operations and/or projects. One definition of a project is a temporary undertaking that has a specific objective and a definite beginning and end, with the key focus often being the creation of a unique product or service (Labuschagne & Brent, 2005). Sustainability, however, has a long term orientation and this direct contrast with the short term nature of projects creates an imbalance that makes it challenging to incorporate sustainability into projects in a meaningful and measureable way.

It is becoming more common for project organizations to drive sustainability deep into their organizations by conducting projects such as building new facilities or designing new production methods to achieve internal sustainability objectives or targets. These projects are usually very company-specific and are not applicable outside the organization, except in a general sense. There are few, if any, large consulting companies in the resource extraction or industrial sphere that have driven sustainability deeply into their processes and, therefore, can offer their clients a range of sustainability services within their project execution philosophies. It is also very rare to find a large engineering company with sustainability offerings that contain documented processes, procedures, indicators, and methodologies.

This chapter examines sustainability indicators through the lens of one global engineering, consulting, and project management services organization. This organization is one of the leaders in its peer group in regards to sustainability and for a number of years has been the world sector leader on the Dow Jones Sustainability World Index. This organization works on world scale projects for many global resource companies, which are very advanced organizations when it

comes to corporate sustainability and therefore demand high sustainability acumen from their consultants. In addition to these highly advanced sustainability clients, this consulting organization also has clients that are not yet mature in the sustainability field. These clients are looking to their consultants to guide them in improving their sustainability practices.

Given the global landscape, there is an opportunity for this consulting firm to be a leader in driving sustainability deeper, and perhaps fully, into its processes and project execution. Doing this would differentiate this firm from its competitors when pursuing new projects, both from a reputational standpoint and, for some clients, from a material standpoint.

The goal of this chapter is to assist in standardizing the sustainability process, making it easier to implement and more mainstream. Along with an examination of a number of current indicator sets in use, this chapter will show a proposed indicator set for use by consulting engineers and their resource extraction and industrial clients on projects in industries such as oil and gas, mining, manufacturing, and pulp and paper. The indicator sets examined will include those used by the International Federation of Consulting Engineers (PSM), the Global Reporting Initiative (G3), the US Green Building Council (LEED), the International Finance Corporation (IFC), the Ceres and Tellus Institute (FRP), and the Mining Association of Canada (TSM). The proposed indicator set is a sub-set of indicators that are used by existing sustainability indicator sets and is tailored to be applicable to industrial or resource extraction projects.

The chapter will conclude by evaluating the implementation of the indicator set and implementation process against a current design build project in the transportation industry.

Because each project is, by definition, unique, the proposed indicator has been developed to be broader in scope than the majority of projects would require. Project dimensions such as industry

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