

## Chapter 35

# Managing Project Sustainability: A Tool for Project Managers

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### **ABSTRACT**

*Managing project sustainability is becoming important in the last two decades since the Earth Summit in 1992. An increasing number of projects have built in sustainability considerations into project design and implementation. Recent research findings show that lack of sustainability knowledge for project managers is a key barrier to drive projects and programs contributing towards a sustainable society. Definitions and approaches (pillar-based and principles-based) to sustainability in project management together with project manager competence requirements are discussed. The purpose of this chapter is to devise an assessment tool for project managers incorporating the concept of pillar-based and principles-based sustainability approaches as well as the EIA-driven and objectives-led assessment methodologies. Criteria for selecting assessment scheme appropriate to various project initiatives are developed. Integrating selected assessment methodology into sustainability evaluation framework within the project life cycle forms a complete tool. This chapter contributes to devising a practical assessment tool for project managers in managing project sustainability.*

### **INTRODUCTION**

*Apart from the threat of hostilities and terrorism, it seems certain that climate change and the exhaustion of natural fossil fuel resources will provide the biggest challenges in the future. We shall need effective project managers to deal with these challenges if humankind is to survive. (Lock, 2007, p. 5)*

Lock raises concern about sustainability of humankind (Lock, 2007). He is well aware that project managers need to face the kind of challenges like climate change and lack of fossil fuel in the days to come. Project managers are becoming part of the solution to human survival or sustainable development – a popular term after Gro Harlem Brundtland releasing the well-known “Brundtland Report” in 1987. She puts down the definition of sustainable development as “the development that meets the needs of the

DOI: 10.4018/978-1-5225-0196-1.ch035

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present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). Her basic emphases are on long-term aspects of the concept of sustainability and equity between the present and future generations. The context in which Brundtland’s definition is embedded indicates that ‘needs’ include a sound environment, a just society and a healthy economy (Diesendorf, 2000). It links to what people perceive for a change in behavior, attitudes, and consumption patterns, etc. towards sustainability and equity, and how society perceives and values the environment. In the eyes of Diesendorf, ‘Development’ covers social and economic improvement in a broad sense and which may or may not involve economic growth. The emphasis is on ‘qualitative improvement in human-being’ or ‘unfolding of human potential’ as discussed by the ecological economist, Herman Daly (Diesendorf, 2000).

The Agenda 21, which is a comprehensive blueprint of action as adopted by more than 178 governments at the United Nations in the 1992 Earth Summit in Rio de Janeiro, Brazil, called for global partnership and drove governments, business and industry for sustainable development (UNCED, 1992). While most discussions on sustainability and sustainable development focus on political or policy level issues and global concerns, a research supported by the U.S. Agency for International Development (USAID), the United Nations Environment Programme (UNEP) and the University of Minnesota addressed the equally important focus at the project level – how to conduct project for better performing sustainable development. Gregersen, Lundgren and White (1994) in their policy brief suggested changing the project approach to assure more sustainable benefit flows through project activities for the sake of improving the contribution of projects to sustainable development and avoiding unsustainability (Gregersen, Lundgren, & White, 1994).

Project exists in a relatively turbulent environment and change is the purpose of the project itself and uncertainty is inherent in the objectives of that project. A Guide to the Project Management Body of Knowledge, PMBoK (4<sup>th</sup> edition) published by the Project Management Institute (PMI) recognizes “... Projects can also have social, economic, and environmental impacts that far outlast the projects themselves” (PMI, 2008). Munier (2005, p. 21) in his book “Introduction to Sustainability: Road to a Better Future” mentions that “Sustainability as a process often involves making an analysis to determine the best course of action when several projects, plans, programs, and options are considered” (Munier, 2005). The Association for Project Management (APM) in their “APM Supports Sustainability Outlooks” (APM, 2006) recognizes that many people involved in projects and programmes have the ability and capacity to be involved and influence at personnel, corporate, government and project level. Since project management is becoming a common way of managing business (Bredillet, 2000; Turner, 2009), the awareness of project manager and his/her team members to meeting the challenges of sustainability in project delivery would have made contributions to mankind.

Sustainability is a broad and subjective concept (Lim & Yang, 2009). Project managers need to understand sustainability and its relationship to project management before they can make contributions towards a sustainable world. In the project management community, sustainability emerges as a subject in the recent academic research. For instance, Gareis, Huemann and Martinuzzi (Gareis, Huemann, & Martinuzzi, 2009) presented a paper titled “Relating sustainable development and project management” at The International Research Network on Organizing by Projects (IRNOP) in the IRNOP IX Research Conference (Berlin, Germany, 11-13, October 2009) and another paper of related topic was presented at the Project Management Institute (PMI) Research and Education Conference 2010 (Washington, D.C., USA, 11-14, July 2010) (Gareis, Huemann, & Martinuzzi, 2010); and Silvius, van den Brink and Köhler (2010) presented a paper titled “The concept of sustainability and its application to project management” at the International Project Management Association (IPMA) International Expert Seminar

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