Improving Sustainable Development Outcomes Through Best Management Practices

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Abstract

Over the last several decades the world has undergone several economic, political, environmental, and cultural changes. Society is faced with countless challenges that surround sustainable development. Progress has been made with respect to world poverty, technological development, and environmental awareness. Nonetheless, we have an opportunity to improve the leadership, planning, implementation, and monitoring of sustainable development projects. Notwithstanding having better technology and increased access to more data and information, we are still not able to optimize sustainable development decisions. This paper addresses a few critical aspects of strategic management and some resulting challenges faced by policy makers, managers, and implementers of sustainable development projects who come from the private sector, public sector and NGOs. The paper offers some managerial recommendations on how to enhance the leadership, planning, implementation, and monitoring of sustainable development projects.

Author's Note

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1. Sustainable Development in a Complex and Dynamic World

Over the last several decades the world has undergone several changes. Globalization has undoubtedly modified the international economic and political landscape. We live in a world that has become increasingly integrated and interdependent. Technology has become fundamental to everything that we do. Advances in technology enable us to increase production and efficiency. Globalization, technology, and the availability of information have converged and yielded a much more complex and dynamic environment where knowledge remains

paramount to effective decision making. Managing and applying knowledge effectively have become even more critical in a hyper-competitive world. In the midst of all these dynamic forces we find people and the environment.

Society is faced with countless challenges that surround sustainability. We are well aware of the economic growth literature that suggests that even a relatively small growth rate over a long period of time can have large impact on a country. Countries are thus incentivized to grow economically as an expanding economy provides job prospects, income opportunities, and wealth for citizens. Contrariwise, economic growth can also lead to an increase in income inequality along with inadvertently yielding negative spillovers that hurt the environment as industries and firms in some cases may be more preoccupied with ramping up production rather than examining and managing the effects of their production on the physical environment.

During the last 30 years, researchers, scholars, agencies, and governments have increasingly explored and exchanged ideas, and worked closely towards building sustainable development practices as they realize that addressing issues such as poverty, food and agriculture, and climate change requires using an integrative, multi-disciplinary framework. In 1987, the United Nations World Commission on Environment and Development (the "Brundtland Commission") released *Our Common Future*[1]. This report placed environmental issues on the political agenda and attempted to discuss the environment and development as a single issue. The report also called for: "strengthen international cooperation on environment and development and to assess and propose new forms of cooperation that can break out of existing patterns and influence policies and events in the direction of needed change" (Our Common Future, 1987). Ultimately, the work of the World Commission on Environment and Development would lead to the emergence of the Rio Declaration on Environment and Development[2] (1992) and the United Nations Conference on Environment and Development (UNCED).

The Rio Declaration's 27 principles emphasize the role of man, capacity building for sustainable development, and public participation. Many scholars, researchers, policy makers, and community leaders have ever since worked tirelessly to eradicate poverty, decrease the disparities in standards of living, build up development capacity, and protect the environment during the development process. In the years since the Rio Declaration, numerous sustainability standards and certification systems have been established. Also, the Earth Charter [3] was formed. The Earth Charter is essentially "a global consensus statement on the meaning of sustainability and the principles by which sustainable development is to be achieved." (Earth Charter, 2014). Moreover, several international organizations and agencies have been working closely together to enhance sustainable development practices and procedures aimed at building a desirable future for society.

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[1] Our Common Future. http://www.un-documents.net/wced-ocf.htm
[2] Rio Declaration. http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm
[3] Earth Charter. http://www.earthcharterinaction.org/content/

2. The State of the World Today

In spite of increased international economic integration, amplified cooperative efforts amongst international agencies and governments, improved technological developments in transportation and communication, and greater access to more information, the world continues to endure poverty, inequality, political instability, and environmental degradation.

Exhibit 1 – Global Poverty between 1950 and 2012

Global number of people, in billions	1950	1970	1990	2000	2012
In absolute poverty on less US$(PPP)1.25 per day			1.95	1.78	1.17
Employed less US$1.25			0.83	0.69	0.38
Less US$2.15 per day			3.1	3.3	2.7
Below relative poverty line in developing world			2.5	2.7	2.8
Hungry		1.0	0.8	0.8	0.85
No safe drinking water			1.25		0.74
No access to sanitation			1.80		2.44
No access to electricity		1.8	2.0	1.65	1.27
Migrants			0.16		0.21
> 60 years of age	0.2	0.25	0.5	0.6	0.81
Slum dwellers			0.67	0.78	0.87
Urban residents	0.75	1.35	2.28	2.86	3.63
Least developed	0.20	0.31	0.51	0.66	0.88
World population	2.5	3.7	5.3	6.1	7.1
US dollars	**1950**	**1970**	**1990**	**2000**	**2010**
GDP (in trillion US$)		17	36	49	67
GDP per capita (1,000 int'l 1990 dollars)	2.1	3.7	5.1	6.1	7.8

Source: 2013 United Nations Global Sustainable Development Report[4].

The data shown in exhibit 1 indicates that between 1990 and 2012, the total number of people living in absolute poverty, less than US $(PPP) 1.25 per day, decreased from 1.95 billion to 1.17 billion. Moreover, the number of people earning less than US (PPP) $1.25 has also decreased from approximately 830 million to 380 million between 1990 and 2012. Geographic areas where poverty has decreased include East Asia and Pacific (mainly in countries such as China and Thailand) and to a lesser extent the Middle East and North Africa. However, geographic regions such as Sub-Saharan Africa, South Asia, and Latin America and Caribbean continue to experience consistently high levels of poverty.

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[4] United Nations (2013). Global Sustainable Development Report – Executive Summary: Building the Common Future We Want. New York: United Nations Department of Economic and Social Affairs, Division for Sustainable Development.
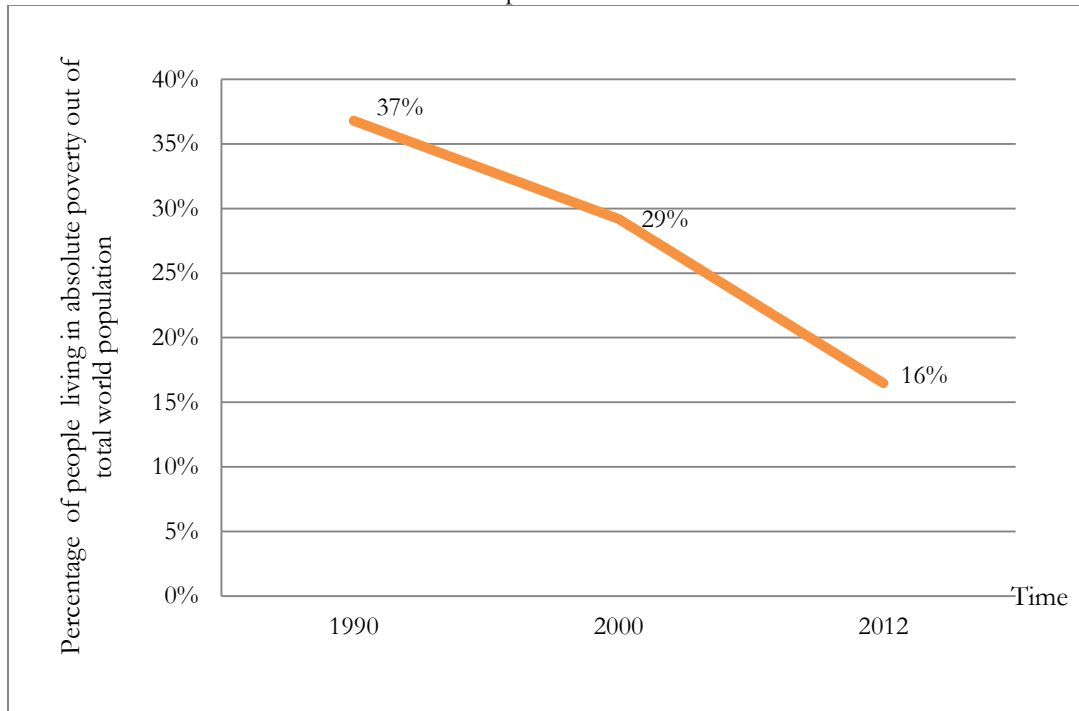http://sustainabledevelopment.un.org/globalsdreport/

Exhibit 2 – Number of People Living on Less than US$ (PPP) 1.25 per day
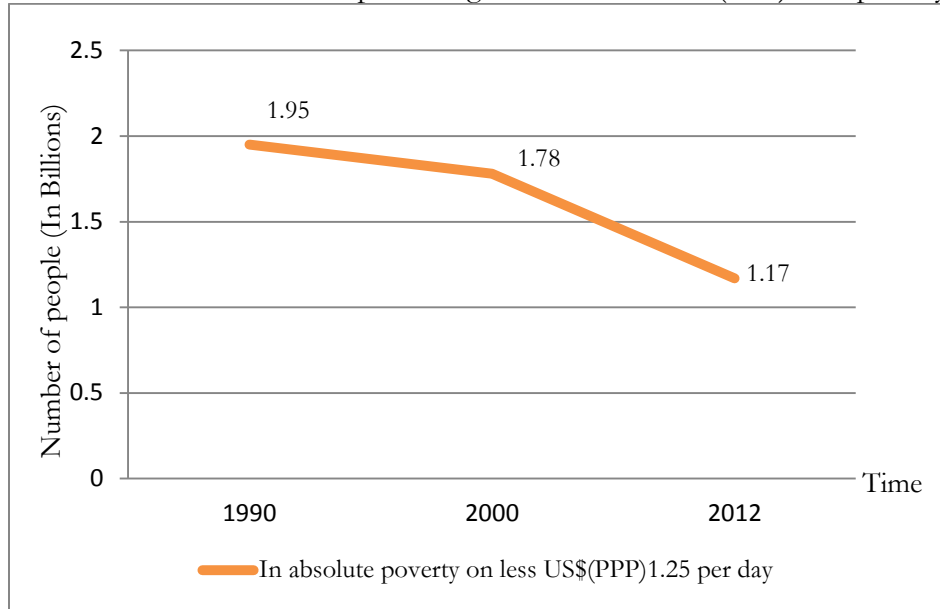
Source: Author calculation

Exhibit 2 was created using data presented in the 2013 United Nations Global Sustainable Development Report. This exhibit suggests that progress has been made in terms of reducing absolute poverty around the world. Despite the overall poverty reduction reflected above, China's stunning economic growth in recent decades must be factored into the analysis. Had China's economy not grown at such a high rate during the last several years, we would expect to have several more million people living on less than US$ (PPP) 1.25 per day.

Exhibit 3 – Percentage of People Living in Absolute Poverty Out of Total World Population


Source: Author calculation

Exhibit 3 was created using data presented in the 2013 United Nations Global Sustainable Development Report. The exhibit suggests that the percentage of people living in absolute poverty out of the total world population has steadily decreased during the last 25 years. The declining percentage proposes that there have been important achievements in the global fight against poverty. Nonetheless, it is important to factor in China's economic growth. If we were to remove China's figures from the analysis, the resultant overall percentage of people living in absolute poverty would be substantially higher. It is also important to underscore that the world population has continuously grown in recent decades. Hence, although the percentage of people living in absolute poverty has declined, China included, the world's population has steadily increased during the same period of time.

World poverty is without a doubt a pressing issue. Yet, there are other issues of significant global concern. One of the most pressing matters affecting us today is climate change. Exhibit 4 below taken from NASA[5] shows the atmospheric CO_2 levels on earth during the past 650,000 years. Since 1950, atmospheric CO_2 has increased exponentially. The heat-trapping nature of carbon dioxide has increased the levels of greenhouse gases and caused the Earth to warm up significantly. The increased level of CO_2 has led to the melting of glaciers and the shrinking of ice sheets which raise sea levels and increase ocean acidification. Ultimately, rising global temperatures, warmer oceans, and declining Artic sea ice will converge to represent dire consequences for millions of people around the world.

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[5] Global Climate Change. http://climate.nasa.gov/evidence

Exhibit 4 – Levels of Atmospheric CO_2 on Earth during the Last 650,000 Years
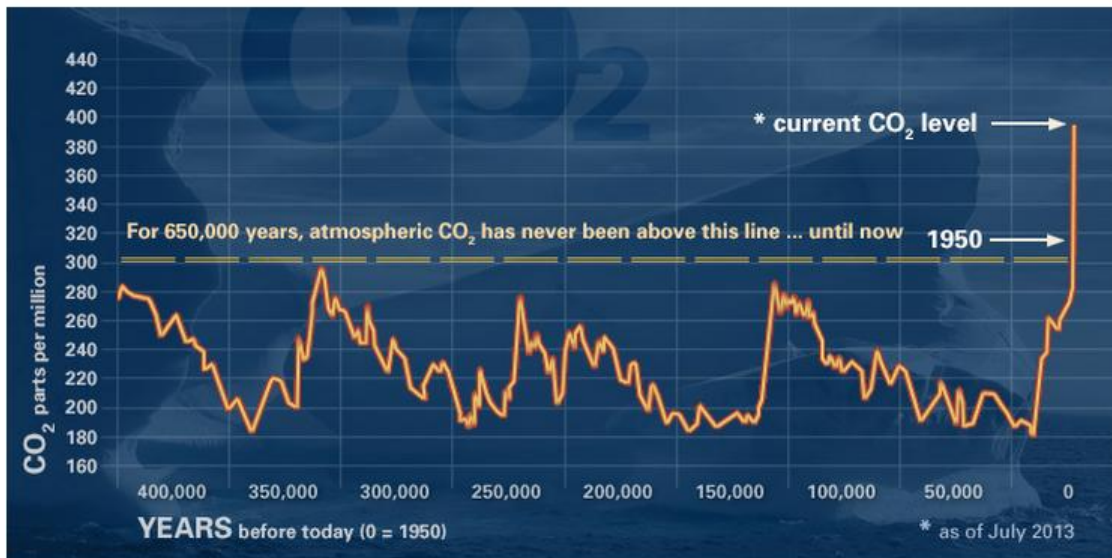

This graph, based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO_2 has increased since the Industrial Revolution. (Source: NOAA)

Sustainable development is faced with the ongoing challenge of balancing many domains (ecological, economic, political and cultural). The data tells us that there have been some improvements in poverty alleviation. Nonetheless, there are still several million people who are poor. Additionally, the environment and its sustainability are of great concern. Will there be enough food for the entire world population to be sustained while ensuring that the planet's resources are not eradicated? In order to answer questions such as this, the ecological, economic, political and cultural domains must be examined and reconciled. All of them are equally important.

Exhibit 5 below is a visual representation of the Circles of Sustainability[6], a comprehensive method used for assessing sustainability from multiple perspectives – an approach also referred to as 'engaged theory'. It is certainly appropriate that policy makers employ an integrated, multi-domain perspective when assessing sustainability and managing projects directed towards socially sustainable outcomes. Such an approach should help to enhance human society's needs without undermining the sustainability of the environment.

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[6] UN Global Compact Cities Programme. http://citiesprogramme.com/archives/resource/circles-of-sustainability-urban-profile-process

Exhibit 5 – Circles of Sustainability by UN Global Compact Cities Programme
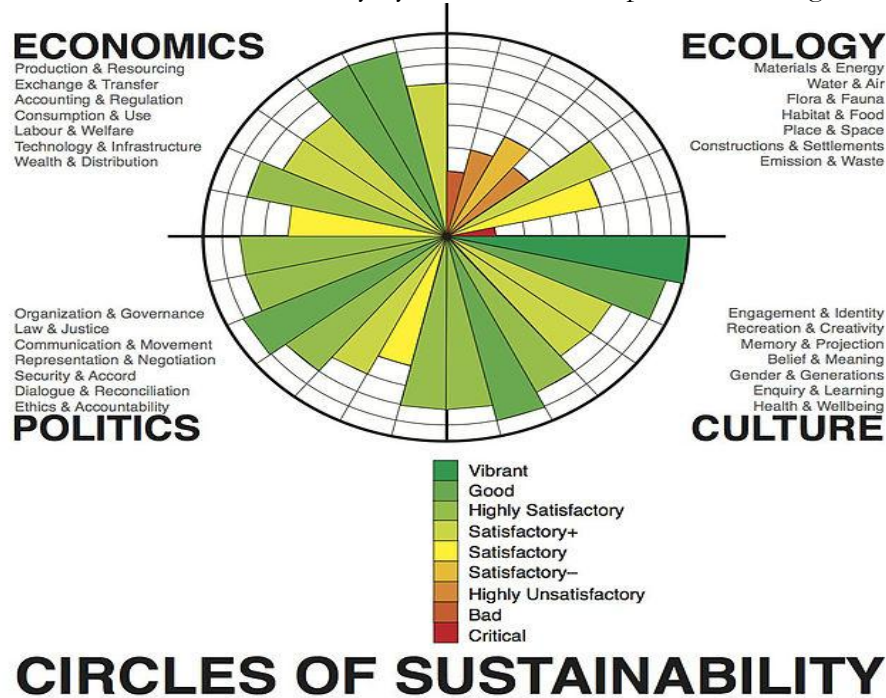
Source: UN Global Compact Cities Programme

3. We Have Made Progress but Can Still Improve

        In the last 25 years, much progress has been made. Several organizations and individuals have contributed towards building a more sustainable world while incorporating the environment, economics, politics, and People into a cohesive and integrated sustainable development approach. Although much has been accomplished, there are certainly opportunities to improve our leadership, planning, implementation, and monitoring of sustainable development projects. Notwithstanding having better technology and increased access to more data and information, we are still not able to optimize sustainable development decisions. Although we utilize advanced technical analysis tools to aid us in sustainable development projects, often times project results turn out different from what we intended and expected. This begs the question - what prevents us from achieving the results we envision? Perhaps some of the answers lie in our ability to manage people, processes, and projects.

        The remainder of this paper addresses a few critical aspects of strategic management and some resulting challenges faced by policy makers, managers, and implementers of sustainable development projects who come from the private sector, public sector and NGOs. The paper also offers some managerial recommendations and policy implications.

4. Strategic Management Challenges

The effective management of people, processes, and decisions is vital to the success of any venture regardless of its goals, scope, industry, or location. Effective management is necessary for the project's purpose to be realized and its goals to be met. In order to improve the prospect of achieving desired results, management must address strategic management challenges effectively.

In 2004, the International Institute for Sustainable Development published a report titled National Strategies for Sustainable Development[7]. The report highlighted challenges, approaches and innovations in strategic and coordinated action for sustainable development at the national level. The report identified challenges related to the strategic management aspects of leadership, planning, implementation, and monitoring and learning. A special reference was made within the report about a continuous improvement approach to managing sustainable development strategies introduced by Dalal-Clayton and Bass (2002) – see Exhibit 6 below. All of these aspects of strategic management are vital and henceforth their respective ensuing challenges must be addressed in order for the sustainable development project to accomplish its intended goals.

Exhibit 6 – Continuous Improvement Approach by Dalal-Clayton and Bass, 2002

Figure 2-1. The continuous improvement approach to managing sustainable development strategies (Dalal-Clayton and Bass 2002). The simplified four-part strategic management model used in this report is superimposed.
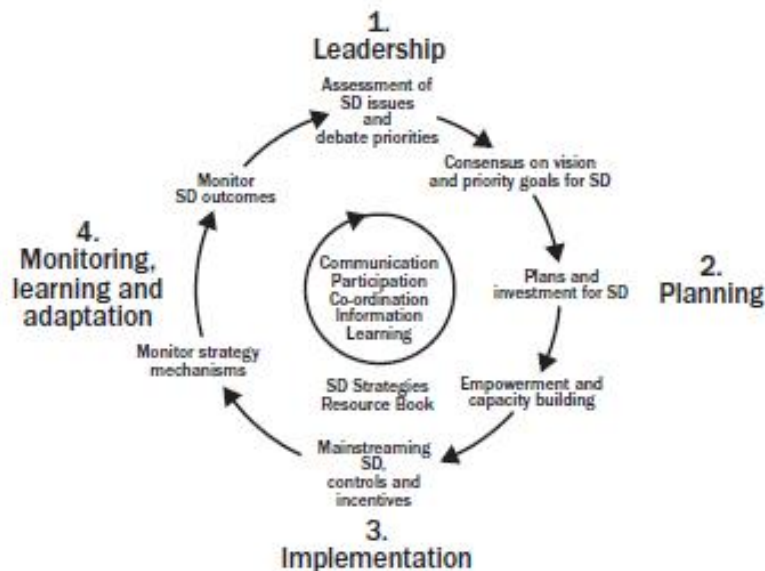
Source: 2004 National Strategies for Sustainable Development Report

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4.1 Leadership Challenges

Individuals are critical to the success of the enterprise. People are the organization's most valuable assets and thus when led effectively can help to drive the organization's mission forward. Conversely, if led poorly, people can inadvertently impede the organization from fulfilling its goals. Peter Drucker (2008) argued that "There are no more important decisions within the organization than people decisions." (p.308). Leading people effectively is a major challenge that must be addressed in sustainable development. According to Robbins and Judge (2013), "Leadership is the ability to influence a group toward the achievement of a vision or set of goals." (p.368). However, leading individuals effectively is not an easy endeavor as individuals are complex, dynamic, and ultimately different.

In the face of the complexity of human beings, we must recognize that leading individuals is both a critical responsibility and a necessity. Peter Drucker (1999) explained that "One does not 'manage' people. The task is to lead people." (p.21-22). Organizations and sustainable development projects necessitate strong leadership for optimal effectiveness. And leading people requires adaptability, flexibility, and awareness.

Daniel Goleman (2000) discussed six leadership styles (coercive, authoritative, affiliative, democratic, pacesetting, and coaching) that managers utilize. Goleman (2000) also explained that the leadership approach that gets effective results is one where managers do not rely on only one leadership style, but rather an approach that allows them to switch between leadership styles as the circumstances dictate (p.2). Hence, effective leadership, according to Goleman, is situational and adaptive. Emotional intelligence, the ability to manage ourselves and our relationships, is also indispensable to effective leadership (Goleman, 2000, p.4). Developing emotional intelligence will help us acquire greater organizational awareness and increase our ability to recognize and meet the needs of our constituents and stakeholders.

Today more than ever before, we depend on teams to deliver work and results. Teams are also complex and challenging to manage. The ability to manage teams effectively has become paramount as organizations are comprised of experts, specialists, key stakeholders, et al, who must work together in order to deliver results.

Linda Hill (2006) argued that in order to succeed as a manager, we must give up the myth of authority (p.5). This implies that managers must not assume that exerting authority and using a top-down approach will lead to compliance and commitment within the team. Rather, what is essential is building relationships with people within the team and with others outside of the group. Following this suggested approach will allow the manager to better negotiate interdependencies and build effective relationships with key people the sustainable development project depends upon. This will in turn help foster buy-in and support for the team's mission. We must also build commitment and trust by empowering individuals and teams to achieve individual and team goals (Hill, 2006). Instead of seeking to control individuals and teams, we must allow them to have ownership of the process and take calculated risks that lead to change and improvement. Hill suggested that it is important to use group-based forums for problem solving and diagnosis (Hill, 2006).

It is essential that we find ways to harness the collective power of the team to improve performance and results. Furthermore, we should be cognizant of the importance of developing a strong culture that embodies the values and norms we

aspire to and which conversely will help support us in our quest for building sustainable outcomes. A strong, cohesive culture can help to improve problem-solving and dramatically improve team performance.

Theories about leadership have evolved over time. For several years, management and organizational behavior scholars recognized "transactional leaders" as exchanging rewards for effort and promising rewards for good performance. During the late 1970s, James MacGregor Burns conceptualized a different leadership theory which instead focused on the leader's ability to influence the motivation, morale, and performance of followers. According to Burns (1978) a "transforming leader" is able to connect the follower's sense of identity to the project and to the collective identity of the organization (Burns, 1978). Moreover, Burns argued that the transforming leader serves as a role model for followers and inspires and challenges them to take greater ownership for their work. The transforming leader is an inspiring figure who understands the needs of her people and allows them to meet those needs through tasks and responsibilities. Building upon Burns' work, Bass and Avolio (1994) found that a "transformational leadership" style can indeed motivate and intellectually stimulate followers and be useful in aligning followers' motivation with tasks that enhance the performance of the organization (Bass and Avolio, 1994). Transformational leadership offers practical applications to sustainable development. Managers would be more effective if they allow their people to grow and expand their roles within the organization. Sustainable development needs people to be engaged, committed, and motivated. An example of this type of approach is exemplified by the World Resources Institute[8]. Also known as WRI, this organization works closely with leaders to turn ideas into action. WRI measures its success through real change on the ground. Moreover, WRI works closely with governments, companies, and the community to develop partnerships where people become engaged and committed to the project's mission. Transformational leadership can help motivate our people to go beyond the expected and find greater meaning.

Some further recommendations related to building leadership capabilities include assembling a team with members who have different and complementary skill sets and leadership styles. An example of this approach is demonstrated by the World Bank[9]. The World Bank recognizes that growth must be holistic, inclusive and environmentally sound to reduce poverty and build shared prosperity. As a result, the World Bank assembles teams of professionals and experts who hold different and complementary skill sets to work on sustainable development projects. With time these diverse teams develop high levels of leadership due to their recurrent internal interaction and the team's principal functions to solve problems and find solutions that address challenges.

It is also advisable to seek and try to understand your team's emotional intelligence. Realize that emotional intelligence can be learned through practice and commitment and that effective leadership relies on the ability to switch across different styles. Finally, a leadership approach that embodies and combines the

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[8] World Resources Institute. http://www.wri.org/
[9] World Bank Sustainable Development.
http://www.worldbank.org/en/topic/sustainabledevelopment

essence of situational leadership and transformational leadership is highly encouraged as it may help to enhance overall effectiveness.

4.2 Planning Challenges

Change is inevitable. Change is constant and we must learn to embrace change rather than fear it. Some organizations perceive change as something that you do once you realize the process does not work. However, waiting until the proverbial dam is cracked and the water is flowing through is not the way to approach change. Organizations simply cannot afford to wait to change at the last minute. Rather, organizations should embrace change and be open to changing processes, procedures, and approaches regardless of whether or not there is an evident crisis.

In fact, waiting until there is a crisis to make changes is perhaps a sign of having waited too long. Organizations ought to become more proactive, rather than reactive. Planning is a necessity.

Managing change requires planning. And the effectiveness of sustainable projects is contingent upon our ability to manage change. Although we may not be able to predict the future with great exactitude, planning allows us to consider and anticipate possible outcomes and design alternative strategies for accomplishing our goals. Planning also helps to reduce some uncertainty as the planning process should reveal plausible scenarios and their corresponding likelihood. An example of an organization that focuses on planning is the International Fund for Agricultural Development (IFAD)[10]. A specialized agency of the United Nations, IFAD uses a strategic framework for conducting projects and guiding its operations. For instance, IFAD has developed carefully planned strategies for partnering with the private sector, for engaging with middle-income countries, and for working on environment and natural resource management projects. Through its strategic framework and strong emphasis on the planning component, IFAD is able to work more effectively on projects and develop relevant processes and policies that reconcile the complexity and dynamism found in sustainable development project management.

Effective planning also benefits our decision making capabilities as we consider what information we will need, why we will need, and how we will use it. Enriching our decision making process also helps to improve the probability of achieving the outcomes we envision. In order to make better decisions, it is important to have objective evidence. Drucker (1995) noted that "Decisions are commitments to action." (p.x). Consequently, we must be disciplined in our search for and use of data, information, and evidence as they will affect our decisions and actions.

Drucker (1995) explained that there are some key questions we must ask ourselves pertaining data and information such as:

"What information do I need to do my job? When do I need it? In what form? And from whom should I be getting it? What new tasks can I tackle now that I get all these data? Which old tasks should I abandon? Which tasks should I do differently?" (Drucker, 1995, 109)

As mentioned earlier, effective decision making depends greatly on the use of objective evidence. Pfeffer and Sutton (2006) described that people trust their own

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[10] International Fund for Agricultural Development (IFAD). http://www.ifad.org/

clinical experience more than they trust research (Pfeffer and Sutton, 2006, 64). Even though they are presented with research evidence, a very small percentage of professionals use such evidence. Instead, they rely on their "personal experience", intuition, and personal observation. Moreover, many decision makers rely on cherished beliefs and traditions to make decisions. Pfeffer and Sutton warned: "When people are overly influenced by ideology, they often fail to question whether a practice will work – it fits so well with what they "know" about what makes people and organizations tick." (Pfeffer and Sutton, 2006, 65). Some decision makers import ideas and concepts from other organizations believing that these will also work in their own organization, yet often times they do not understand the logic and context of some of these borrowed ideas.

Pfeffer and Sutton (2006) offered a few suggestions for enhancing decision making. Nurture an evidence-based approach within your organization. Take time to evaluate the logic behind the evidence. Encourage trial programs and experimentation within the organization and reward learning from these activities even when things do not turn out as you expected. Finally, Pfeffer and Sutton (2006) provided six standards that will enhance decision making. These are: "(1) stop treating old ideas as if they were brand-new; (2) be suspicious of "breakthrough" ideas and studies; (3) celebrate and develop collective brilliance; (4) emphasize drawbacks as well as virtues; (5) use success (and failure) stories to illustrate sound practices, but not in place of a valid research method; and (6) adopt a neutral stance toward ideologies and theories" (Pfeffer and Sutton, 2006, 71).

Decision makers influence organizational outcomes. Some decision makers unwittingly fail to see and seek important information, fail to use the information they do see, and fail to share the information they do have. Bazerman and Chugh (2005) explained that some decisions are made with "bounded awareness" – when cognitive blinders cause people to ignore critical information when making decisions (Bazerman and Chugh, 2005, 3). Bounded awareness derives from perceptual blindness, personal motivation to favor a particular outcome, and ignoring what others are doing in your industry or practice. The authors warned that bounded awareness spawns blind spots which impair decision making.

Bazerman and Chugh (2005) offered some recommendations to address bounded awareness. Below are some of their principal suggestions.

> "Learn to be more observant of changes in your environment. Get multiple views on an issue and assign someone the responsibility of building awareness about changes in the environment. Seek disconfirming information – that is information that contradicts your intuition and knowledge - and use it for problem solving. Assign a devil's inquisitor role to a member of the team. This person will be charged with asking questions rather than arguing an alternate point of view. Since everyone has unique information and different perspective, request individual reports." (Bazerman and Chugh, 2005)

Asking individuals to express their views provides them with the opportunity to participate more and may even encourage individuals to try and develop solutions that will benefit the organization. Decision makers will also benefit from having multiple perspectives to ponder and consider.

        In order to be more effective planners, decision makers must learn to see, seek, use, and share information. Planning relies on our ability to be objective and thorough in our analysis of data, information and circumstances. Also, planning requires that we are disciplined thinkers who are open to new ideas, yet aware of their virtues and drawbacks. An example of an organization which uses this planning and objective data gathering approach is the Department for Environment, Food and Rural Affairs (Defra) in the United Kingdom[11]. Defra realizes that the government needs access to expertise and evidence in order to achieve its sustainable development objectives. As a result, Defra has instituted the use of evidence as an essential base for developing its sustainable development efforts. In fact, Defra funds and manages the Sustainable Development Research Network (SDRN) which aims to facilitate and strengthen links between research providers and policymakers across government to improve evidence-based policymaking to support delivery of the Government's objectives for sustainable development (Defra, 2014).

4.3 Implementation Challenges

        There are numerous cases where seemingly appropriate solutions were developed yet surprisingly failed. Often times, a lack of implementation foresight and of an executional approach have impaired the success of many hypothetical effective solutions.   Some projects fail to produce their desired results because their implementation was not addressed adequately using relevant contextual factors. Magnus Boström (2012) discussed challenges faced by the Forest Stewardship Council (FSC) in its sustainability efforts. Amongst the challenges faced by FSC is a lack of capacity to work for effective implementation. Boström explained: "The problem is rather how certification bodies and auditors interpret the standards and how forest companies operationalize them." (Boström, 2012). Furthermore, Boström remarked: "What is drafted in the standard and what is implemented on the field – there is a great gap. That is the problem." (Boström, 2012).
        Another example of a project that encountered implementation challenges is introduced by Yang (2000) in a paper that discusses the major problems of sustainable development along the bank area of the Changjiang River. Yang explained that building a developed economic zone along the bank area of the Changjiang River was a strategic decision that fell under the national macroeconomic development plan. Yang suggested that the decision to develop the zone encouraged fast development of the economy, but at the same time led to major problems such as scattered industrial structure, duplicated construction of projects, enlargement of the development gap of the regional economy, and the deterioration of the environment including soil erosion and environmental pollution. Yang explained that the project had well intended goals. However, due to a combination of planning and implementation ineffectiveness, the project actually exacerbated spillover effects due to unreasonable over-development.
        Details matter and sometimes teams inadvertently or unknowingly miss to see, seek, use, and share information that is relevant to the project. As a result, we have examples of projects that have failed to achieve the goals and objectives they were intended to achieve. An example of this is discussed by Manjengwa (2007) in a paper about sustainable development in Zimbabwe. Manjengwa argued that many

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[11] Department for Environment, Food and Rural Affairs (Defra). http://sd.defra.gov.uk/

sustainable development initiatives in developing countries are characterized by weak implementation and low impact on the ground. In her paper, Manjengwa discussed the District Environmental Action Planning (DEAP) and summarized her findings as follows: "DEAP was not based at local level, environmental concerns were not integrated into development plans, and the projects that were implemented had negligible impact on either environmental or human well-being. DEAP was implemented within a strongly hierarchical framework and failed to bridge the gap between micro and macro levels. Analysis of DEAP's implementation has shown that the programme was essentially top-down, only partially participatory, and depended on the usual technocratic solutions to environmental management." (Manjengwa, 2007).

Matta and Ashkenas (2003) suggested that part of the reason why good projects have failed is that the traditional approach to project management shifts the project teams' focus away from the end result toward developing recommendations and partial solutions (Matta and Ashkenas, 2003, 1). The authors argued that the traditional approach of focusing on developing recommendations is problematic especially when you have many people working together over a long period of time. When this occurs, it is difficult to plan and predict all of the activities and work streams that will be needed in the future. Hence, attempting to develop recommendations during earlier stages of the project misses the complexity and dynamism that will occur over time. Hence, even if recommendations are identified early in the project management process, many of them will be out-of context or outdated as things will have shifted during the duration of the project. Additionally, many projects end up producing partial solutions as individuals often times work independently of one another and over time their efforts may inadvertently diverge resulting in "integration risk".

Matta and Ashkenas (2003) provided some insight for designing projects that guard against unnecessary failure. Below are some of their recommendations:

> "Within the organization, inject the overall plan with a series of rapid-results initiatives, mini-projects, each staffed with a team responsible for a version of the hoped-for overall result in miniature. Each rapid-results initiative should be designed to deliver results quickly. Each team will work to discover what will be needed to be successful. Teams will be forced to find out what is missing from their plan and what will be needed to successfully implement a set of solutions. As each team advances and learns through trial and error, they share their issues, challenges, and knowledge with other teams within the organization. Eventually, teams will attempt to become the model for the next teams. The organization benefits from all this as it learns quickly from separate experiments what works and what does not, which challenges seem to surface, how to best implement the project, etc." (Matta and Ashkenas, 2003)

Matta and Ashkenas provided a different approach for addressing project implementation challenges. Sustainable development projects are susceptible to implementation risk. Successful implementation requires not only great ideas, but thoughtful reflection on how to best implement the solutions. This requires time and patience. Rushing to see results is not a recommendation. Rather, employing

multiple analytic approaches, experimenting with rapid-results initiatives, and comparing and contrasting multiple ways of implementing a project are highly suggested.

4.4 Monitoring and Learning Challenges

Sustainable development projects encounter monitoring and learning challenges. The strategic management process requires that we monitor and measure objectively and frequently. Moreover, it is important that we learn throughout the process. As a result, it is essential that project managers and project team members address the questions of how they will monitor ongoing developments effectively and how they will learn from them.

The goals we set and eventually monitor and evaluate must be measurable, realistic, objective, and based on the element of time. Consequently, the monitoring system we employ must account for these characteristics.

During the 1960s, the concept of management by objectives (MBO) emerged. It was a monitoring and performance evaluation process approach that tried to objectively measure performance and provide individuals with opportunities to establish self-motivating goals and objectives. For several decades, many organizations employed the MBO process approach believing that it was fair, reasonable, and effective.

Researchers in psychology and organizational behavior more recently have suggested that the MBO process is inadequate for inspiring individuals as it does not take into account the deeper emotional mechanisms of motivation, it ignores individuals' personal goals, and it focuses on quantification while subtle, critical elements of work are ignored. The MBO process focuses on what individuals can do for the organization and not on how the organization can enable individuals to reach their personal dreams and aspirations.

In an attempt to address this issue, Levinson (2003) argued that there are better ways to build an effective performance management and monitoring system. Levinson (2003) offered the following recommendations:

"Appraise your appraisal system. Does it foster a genuine partnership between individuals and the organization? Include group goal setting and appraisal. Since individuals' work is interdependent, formalize group and individual, short-term and long-term goal setting. Have people meet regularly to help each other and to assess their effectiveness on shared tasks. Appraise the appraisers. Have direct reports evaluate their manager's performance. Encourage self-examination. Hold regular conversations with individuals to help them clarify their needs and goals." (Levinson, 2003)

Some scholars have focused their research on understanding how to best encourage learning within the organization. They argue that learning is critical to the organization's success and overall performance. Without learning, the organization may not advance in the long run as it will not build upon its existing knowledge base.

Frederick Herzberg has written extensively on the topics of motivation, job enrichment, and organizational development. Herzberg (2003) offered some recommendations on how organizations may motivate individuals and enable them to reach their full potential, while the organization benefits from their learning. Herzberg (2003) explained:

"Increase individuals' accountability for their work by removing some controls. Give people responsibility for a complete process or unit of work. Make information available to individuals rather than sending it through their managers first. Enable people to take on new, more difficult tasks they have not handled before. Assign individuals specialized tasks that allow them to become experts and learn more." (Herzberg, 2003)

Herzberg's recommendations require contextual analysis and consideration prior to implementation. Nonetheless, research indicates that increasing a person's responsibility while allowing her to make decisions and take on more difficult tasks, does indeed increase that person's learning and growth. If we believe individual and collective learning can benefit our organization, we may wish to consider implementing some of Herzberg's suggestions.

Gretchen Spreitzer and Christine Porath (2012) argued that if you give your employees the chance to learn and grow, they will thrive, and so will your organization (Spreitzer and Porath, 2012). They explained that engaged individuals are more productive and committed to the mission. Moreover, Spreitzer and Porath suggested that it is possible to engage individuals so that they believe in working towards creating a future (Spreitzer and Porath, 2012). Learning plays a large part in engaging and motivating individuals and teams as it gives them the opportunity to grow from gaining new knowledge and skills.

Spreitzer and Porath (2012) provided some recommendations on how to create sustainable performance within the organization. They suggested the following:

"Provide people with a sense of direction. They need to have a sense of where they are and where the organization is headed. Foster a culture that encourages individuals to thrive. Use four mechanisms to create a culture of thriving individuals: (1) provide decision making discretion; (2) share information; (3) minimize incivility; and (4) offer performance feedback." (Spreitzer and Porath, 2012)

These recommendations are universal. Organizations benefit from fostering a thriving culture that inspires people to make decisions, to work together, to learn from success and failure, to take chances, and to accelerate learning and growth.

Achieving sustainable performance relies on our ability to monitor effectively and continuously learn. The monitoring system that ultimately is used should be designed based upon the characteristics and nature of the work that is being evaluated and measured. Nonetheless, it is suggested that decision makers appraise the appraisal system, appraise the appraisers, and encourage self-examination. Entities such as UNDP[12], OECD[13], the Australian Agency for International Development (AusAID)[14], and the Ministry of Foreign Affairs, Trade and Development of Canada[15] utilize learning and monitoring as part of their respective

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[12] UNDP. http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/triple-wins-for-sustainable-development/

[13] OECD. http://www.oecd.org/

[14] Australian Agency for International Development (AusAID). http://aid.dfat.gov.au/Pages/home.aspx

[15] Ministry of Foreign Affairs, Trade and Development of Canada. http://www.acdi-cida.gc.ca/acdi-cida/acdi-cida.nsf/eng/EMA-218132347-PKZ

sustainability approaches which in turn enable them to constantly evaluate and measure as well as enhance and refine decision making.

It is also recommended that individuals are given the opportunity to take on more responsibility and make decisions. They will learn more. Monitoring and learning are critical for building organizational effectiveness and achieving sustainable performance.

5. Policy Implications

Our world has undergone several economic, political, environmental, and cultural changes and it continues to change. Today, the total number of people living in absolute poverty (less than US $(PPP) 1.25 per day) is about 1.17 billion. Atmospheric CO_2 has increased exponentially over past decades and this has resulted in the melting of glaciers and the shrinking of ice sheets. Rising global temperatures, warmer oceans, and declining Artic sea ice will affect millions of people around the world. Many geographic areas have witnessed severe droughts resulting in even greater food shortages. This in turn has increased incivility and heightened informal economy activities in many countries. Despite some economic growth, many countries are experiencing increased income inequality. Accordingly, sustainable development faces several ongoing challenges.

This paper has focused on addressing the strategic management challenges introduced by the International Institute for Sustainable Development in their report titled National Strategies for Sustainable Development. The strategic management process yields expected leadership, planning, implementation, and monitoring challenges. The purpose of this paper is to introduce managerially-based recommendations that may be useful to sustainable development professionals as tools and approaches to address the inherent leadership, planning, implementation, and monitoring challenges of sustainable development projects.

The paper has discussed some best management practices which are intended for a global, multi-disciplinary audience. Policy makers, managers, and implementers of sustainable development projects may find some of the presented concepts and recommendations suitable to their specific projects. Ultimately, the goal of this paper is to share management concepts and offer suggestions that may enhance the performance and success of sustainable projects.

It is possible to improve organizational performance and project outcomes. Often times what hinders our progress is simply the way we manage individuals, teams, and processes. By directly addressing the leadership, planning, implementation, and monitoring components of sustainable development projects, policy makers and other professionals may help position their projects for better performance.

6. Conclusion

The opinion and concepts offered above are intended to provide professionals across different disciplines with ideas and approaches that may help to improve sustainable development outcomes. Our society requires that we share best practices to successfully balance the environment, economics, politics, and the health and well-being of people. Sustainable development is an interdisciplinary endeavor and a global necessity. Professionals from across the globe must continue to

collaborate and share ideas, practices, and remedies that address people's needs while building a better future for our children and their children.

Life presents us with constant challenges. Sustainable development is faced with leadership, planning, implementation, monitoring and learning challenges, to name a few. Fortunately, we possess knowledge and the ability to learn and build upon success and failure. We have come a long way. We have accomplished much. Ultimately, however, we can still continue to improve and deliver better results as we move forward.

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