Critical Analysis on the Theoretical Discussion Concerning the Concept of Sustainability and Project Management

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Abstract
This study discusses reviews literature the most notable works in the field of program management and SDGs. Then it presents and critically analyses the theoretical discussion concerning the concept of sustainability and Project Management. It explores the history of sustainability and its goals as well as its importance and relevance to the environment. Also, there is in-depth literature on sustainable Project Management and the area that the concept can be incorporated. All literature reviewed in this chapter is geared towards achieving the aim of the research. The final subchapter then presents the theoretical model constructed by the author, which lays the foundation of the present research.

1. INTRODUCTION

The failure of not meeting the 2030 targets of the United Nations Sustainable Development Goals (UN SDG) is amongst the most significant global Grand Challenges threatening our survival today and the project management community has a key role, perhaps the most important role after governments, in making a positive impact on the 2030 targets. But what are Grand Challenges? It is a term used predominantly by the academic community to qualify and structure responses to so called 'wicked problems' (Head and Alford, 2015) of immense magnitude and impact. In 1989 the United States White House Office of Science and Technology Policy (OSTP) started using the term Grand Challenges in public-facing documents and has since developed a formalised definition as "*ambitious but achievable goals that harness science, technology, and innovation to solve important national or global problems*" (OSTP, 2013).

The US government's definition implies that practical action-based solutions are needed to impact the national and global policy context. Therefore, Grand Challenges' capture ideas that are equally relevant to academics as well as practitioners. They are also, by definition, both ambitious ("capture the peoples' imagination") and also achievable ("solve … problems"). (Eunice Adwoa Larbie 2019)

Additionally, the definition identifies the need for measurement and impact to demonstrate meaningful progress. The White House definition also suggests that the Grand Challenge problems are defined in a way that enables multi-disciplinary communities to jointly collaborate to find new solutions. In this regard, the definition has evolved since Mertz's (2005) focus on the engineering communities, to a broader group of stakeholders that includes policy shapers, funders, and delivery-to-operations project teams (Omenn, 2006; Robichaud & Anantatmula. 2010).

Consequently, project management professionals will take a leading role in this, especially in providing tangible action that can be implemented by practitioners to affect improved performance against the SDG targets.

More recent research into Grand Challenges (Sakhrani et al., 2017) has identified four characteristics that are helpful in this thesis analysis: (a) articulated by stakeholders, (b) specific, (c) ambitious yet feasible, (d) framed in a manner that suggests the use of specific methods or disciplines, and (e) have the potential for broad impact. These characteristics provide a useful reference point for examining how the project management community can respond to the Grand Challenges of the UN's Sustainable Development Goals. But firstly, before examining how projects can measure SDG success, we need to understand why this is important and how sustainable development has evolved into a 'three-legged stool' that balances economic, social and environmental priorities; what some call: People, Profit and Planet. (Eunice Adwoa Larbie 2019)

Sustainable development is "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (Brundtland, 1987). Over the past 50 years, sustainable development (Sachs, 2016) has become an increasingly central theme of nation states and their citizens. Today, the Planetary Boundaries (Rockstrom, 2009) provide a global litmus test for how we are doing. The concept of nine planetary boundaries within which humanity can continue to develop and thrive for generations to come and was developed in 2009 by environmental scientists from the Stockholm Resilience Centre led by Johan Rockstrom and Will Steffen from the Australian National University. In 2011, the then UN Secretary-General Ban Ki-moon urged global society to "*Help us defend the science that shows we are destabilising our climate and stretching planetary boundaries to a perilous degree*". The most significant global response to the Planetary Boundary challenge was in 2015, when all governments ratified the UN's seventeen Sustainable Development Goals (SDGs - United Nations, 2015), shown in Figure 1 below, to be achieved by 2030 (with 169 targets and 244 indicators agreed in 2017). This represents a major step-change in the implementation of the sustainability agenda and effective responses to the Planetary Boundary challenge (Ness, et, al., 2007).

Although the SDGs build on the earlier Millennium Development Goals (MDGs) (United Nations, 2000) by focusing on similar issues, the SDGs differ from the MDGs because they are for all countries in the world to implement – developed and developing alike (Sustainable Development Network, 2014). Also, unlike the MDGs, the SDGs are focused on monitoring, evaluation and accountability – across society, not just at national level, which is why it is critical that the link is made from the 'bottom-to-top', meaning from delivery of project level impacts that can then be assessed against the national and global targets and indicators. The research presented later shows this cannot currently be achieved, and the evidence illustrates that the golden thread from project measurement to national/global level, is missing. There is a gap.

Recent evidence from UK's Infrastructure and Projects Authority (IPA Report, 2018) suggests that projects are the major vehicle through which national level strategic change is delivered. In 2017-18 the IPA had oversight of 133 projects in the 'tip of the iceberg' of the national portfolio, representing a whole life cost of £423 billion and an annual project spend of £27 billion (IPA, 2018). This is estimated as nearly 20% of UK's national expenditure (Morris, 2017), but it could be concluded that this is just the 'tip of the iceberg', and if widened to include all change projects at all levels whether project programme or portfolio (APM, 2015),

the level of spend could be many multiples of that figure. This expenditure directly impacts SDGs but currently there are inadequate mechanisms to assess how effective this is and what we need to do differently to secure a bigger 'bang for the buck'. The core argument of this paper is that measurement of SDG impacts at project level is not currently working despite the endorsement of the SDGs by all the world's governments. (Eunice Adwoa Larbie 2019)

The problem stems from a fundamental misunderstanding of the interdependent relationship between business and society. The failure to appreciate this interdependence has led to sustainability being overlooked, both as a strategic opportunity for competitive advantage by firms and as a source of significant business risk. If businesses, and the projects that drive the changes needed, are to deliver their full part of SDGs by 2030, a new approach is needed.

This thesis proposes the concept of 'Creating Shared Value' (CSV), first developed by leading business strategist Professor Michael Porter of Harvard Business School (Porter and Kramer, 2006, 2011), which is a unifying theory that can help rethink projects' definition of success by demonstrating impact across the triple bottom line (Elkington, 1994) of all SDGs. Projects can do this by adopting CSV because:

• Recognises the interdependence between society and business.

• Moves society and business away from zero-sum competition to positive-sum competition.

• Enables new ways for business to create competitive advantage that are more resilient against sustainability risks and mimicry by other firms.

• Combines traditional corporate social responsibility (CSR) and business operations into new integrated, and company-specific, strategies for creating shared value. Using CSV as the strategic framework, the SDGs cease to be an additional external cost on businesses but instead become the key input for transformational business strategies that enable both business and society to flourish, even in uncertain or challenging times.

The project management profession has a unique role to play in this transformation process by ensuring that projects' success is defined in the right way from the start, and that CSV opportunities are taken at all stages of the project lifecycle. (Eunice Adwoa Larbie 2019)

1.1 Sustainability

1.1.1What does the concept mean?

Since the first Human Environment Conference in Stockholm, 1972, sustainable development has been on the UN agenda for over 40 years. However, much of the literature on sustainability and sustainable development is the reasoning behind the 1987 study "Our Common Future" by the Brundtland Commission (Gerasimova, 2017). Sustainable development is described as "development that meets the need of the present without compromising the ability of future generations to meet their own needs" The 1987 study played a key part in converting

sustainability from a word that was mainly used in ecology and "green" problems to a term that incorporated economic, social and environmental elements. Additionally, other officials present several definitions of the notion of sustainability and sustainable development as quoted in

Huovila et al. (1998). These different definitions were presented in the years following Brundtland Commission's report to create a standard definition of sustainable development. For a better comprehension of the sustainability goals, these definitions can be regarded as complementary:

- "Improving the quality of human life while living within the carrying capacity of supporting ecosystems" (Caring for the Earth, IUCN/UNEP, 1991)
- "development that delivers basic environmental, social and economic services to all residences of a community without threatening the viability of natural, built and social systems upon which the delivery of those systems depends"

(International Council for Local Environmental Initiatives, 1996)

- It is about ensuring a better quality of life for everyone, now and for generations to come" (Consultation paper 3 on a UK strategy for sustainable construction,)

- "Determined to promote economic and social progress for their peoples, taking into account the principle of sustainable development and within the context of the accomplishment of the international market and of reinforced cohesion and environmental protection, and to implement policies ensuring 1998that advances in economic integration are accompanied by parallel progress in other fields" (Amsterdam Treaty, 1997)

The idea of three-dimensional sustainability comes from the notion of the Triple Bottom Line, coined by Elkington. It comes from the globe of management science, as the word bottom line indicates, and Elkington designed it as a manner of
operationalizing corporate social responsibility. Environmental care (the planet) should be added to the standard bottom line (profit) and good for individuals, for example by offering services for the disabled and employing minorities (the social dimension).

Business objectives, however, are very distinct from public policy objectives. While income is required to cover government spending as in the company, maximizing surplus income overspending is not usually regarded a suitable objective for public policy. The government is not supposed to be a profit-making venture. The 'profit' pillar is therefore translated as the money made by the entire country, expressed as gross domestic product (GDP). This then is the economic dimension, and the social dimension ('people') is everything else connected with human aspirations: equity (translated as allocation of revenue), inclusion (frequently operationalized as jobs) and health (expressed as life expectancy or access to medical facilities). However, a very limited view of economics is the equation of 'economic' with cash. Moreover, if we confine ourselves to the aggregate amount, and not with its allocation or what the cash can purchase, the perspective is further limited (Mansell et, al., 2020).

GDP is designed as a measure of welfare and is, therefore, a very helpful measure, but also a very incomplete and biased measure. It is helpful to measure the quantity of financial activity and because it has comparatively excellent information, but it needs to be complemented by other indicators, such as the Human Development Index. For both economics and sociology, these are subjects of study, and there is no good reason to call one economic aspect and the other social. The sociologist would ask what welfare is and how it can be measured (an issue discussed in the next section), whereas the task of the economist would be to assess what course of action is likely to produce the highest degree of satisfaction of those aspirations, given human aspirations and scarcity of resources.

If there is an excellent reason to prefer a single socio-economic dimension from a conceptual point of perspective, what of its utility to policy analysts? Let's consider a hypothetical project that scores very well on the environmental dimension, but on the social and financial dimensions rather poorly. This could readily lead a policymaker to conclude that the project is not a good idea in general. The reverse judgment could be brought about by a two-dimensional strategy: its environmental advantages come at a welfare price. Therefore, in a three-dimensional strategy, the environmental dimension may gain less weight. Indeed, some writers state explicitly that equal weight should be given to the three dimensions. Since socio-economic elements mainly concern the wellbeing of the current generation and environmental aspects are concerned with caring for the future, this implies that the former becomes twice as essential as the latter, which violates Brundtland's requirement that growth should not take place at the cost of future generations.

Worse, perhaps, the contradiction between our desire for a better life and our concern about what this can do for the setting is obscured by conceptualizing these two issues into three dimensions and then suggesting that a solution can be found where all three are in harmony.

Sustainability then becomes a notion equal to' good' and therefore devoid of any particular meaning— a broad idea that ensures the excellent intentions of the policy's stakeholders. Often the two objectives are in tension. We are therefore proposing to use the term sustainability as designed by the Brundtland Commission and not as later coined by corporate kinds and policymakers (Bond, et, al., (2012).

1.2 The creation and background of the SDGs

In September 2015, world leaders met at the United Nations (UN) in New York, where they adopted the Sustainable Development Goals (SDGs) shown in Figure 1, a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 Goals and 169 targets of the 2030 agenda are integrated and indivisible and balance the three dimensions of sustainable development, namely the economic, social and environmental aspects (United Nations, 2015). While past global governance efforts have relied largely on top-down regulation or market-based approaches, the SDGs promise a new type of governance based on non-legally binding goals set by the UN member states (Biermann, Kanie, & Kim, 2017).

Figure 2: The 17 Sustainable Development Goals (United Nations, 2015)

With the willingness to leave no one behind, the SDGs are directed to all types of stakeholders to stimulate action in areas of critical importance for humanity and the planet (United Nations, 2015). This call demonstrates the understanding that sustainability concerns a wide variety of stakeholders, including governments, regulators, non-governmental organizations (NGOs), businesses but also consumers and investors (Boston Consulting Group, 2017). As an illustration, a growing number of global investors are looking to integrate the SDGs into their portfolio analysis, while a number of governments are also starting to make more specific asks of business in this field (WBCSD, 2018).

The SDGs replace and build on the Millennium Development Goals (MDGs), which started a global effort in 2000 to tackle the indignity of poverty. Even though the SDGs draw on earlier works, their level of ambition and comprehensiveness surpass all existing attempts at global governance based on goal-setting (Biermann et al., 2017). Whereas the MDGs focused on poverty, education and diseases, and were driving an agenda revolving around developing countries, the SDGs ensure the transition to a model encompassing these issues in both developing and developed world, thereby making the business case clearer and directly involving the private sector (Pedersen, 2018).

1.3 The interlinkages between SDGs
The SDGs articulate a highly integrated system as individual areas (Anastas & Zimmerman, 2018), representing synergistic re-enforcement (Pradhan et al., 2017). Therefore, the benefits behind the goals for business and society can only be delivered on the condition that systems-thinking is adopted (Anastas & Zimmerman, 2018; Business & Sustainable Development Commission, 2017). According to Allen, Metternicht, and Wiedmann (2018), an effective approach for implementing the SDGs requires

prioritization of goals and targets to focus on a reduced set of priorities (or a 'nexus'), associated with assistance from a combination of analytical approaches and tools to assess interlinkages in order to optimise systemic impact. Otherwise, unintended or even counter-productive consequences may arise (Anastas & Zimmerman, 2018). Therefore, understanding the range of positive and negative interactions among SDGs is key to unlocking their full potential and ensuring that progress in some areas is not made at the expense of progress in others (International Council for Science, 2017).

2. The private sector and the SDGs

2.1 The involvement of the private sector in the creation of SDGs

Whereas MDGs came out of a typical political UN process with limited interactions outside UN and government circles (Pedersen, 2018), business and industry was designated 'major party' in the UN Open Working Group tasked with developing the SDGs (Scheyvens, Banks, & Hughes, 2016). The close involvement of the private sector in the process reveals a conscious transformation during the past decade, as the private sector has become more entwined in development policy and planning (Scheyvens et al., 2016). This transition aims at further strengthening accountability at all levels, in contrast to its disregard and absence at the time of the MDGs (Kumar, Kumar, & Vivekadhish, 2016).

2.2 The United Nations Global Compact

The UN Global Compact acts as a reference body with the objective to mainstream the ten principles in business activities worldwide and combine them with the business opportunities behind the SDGs. According to the UN Global Compact, corporate sustainability starts with a company's value system and a principles-based approach to doing business, namely operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption. By incorporating the principles of the UN Global Compact into strategies and operations, companies are not only upholding their basic responsibilities to people and planet, but also advancing the SDG agenda and setting the stage for long-term success (United Nations Global Compact, n.d.). Companies can show their commitment to the SDGs by respecting basic standards derived from universal documents such as the UN Global Compact principles, but also the UN Guiding Principles on Business and Human Rights, the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy and other guidelines such as the ISO 26000 Guidance on Social Responsibility and the OECD Guidelines for Multinational Enterprises (GRI, UN Global Compact, & WBCSD, 2015).

2.3 The role of the private sector in the SDGs framework

There is mounting appreciation across the global business community of the key role that the private sector has to play in the realization of the SDGs as a source of finance, a driver of innovation and technological development, and a key engine of economic growth and employment (WBCSD, 2017, 2018c).

As emphasized in the Article 67 agreed to by all 193 UN Member States of the official 2015 agreement, SDGs explicitly recognize the role and responsibility of the private sector: (Sabrina Courtois 2019)

> Private business activity, investment and innovation are major drivers of productivity, inclusive economic growth and job creation. We acknowledge the diversity of the private sector, ranging from micro enterprises to cooperatives to multinationals. We call on all businesses to apply their creativity and innovation to solving sustainable development challenges. (United Nations, 2015)

These actions are not only to be achieved by large corporations but also by small and medium enterprises. As Business Call to Action and GRI (2016) outline, SMEs play a critical role in achieving the SDGs as they are the backbone of numerous economies.

The private sector has the potential to benefit to society at large and to have a pivotal role in achieving the SDGs through the following non-exhaustive points of action. First, by scaling activities across sectors, borders and products and harnessing business' core role in **generating growth, productivity and jobs**. This will become crucial considering that more than 600 million new jobs are needed over the next 15 years to match growth in the global workforce, while SDGs could have the capacity to deliver more than 380 million jobs (Business & Sustainable Development Commission, 2017). Second, by **accessing private sector innovation** around technologies, products, services, processes and business models through ability and willingness to take risk. Third, by **mobilizing sizable and timely financial resources**, e.g. by leveraging public sector and aid investments with corporate philanthropic, social or commercial investment. Fourth, by accessing **complementary know-how and skills** and harnessing businesses' knowledge of designing business models to meet specific customer needs in a scalable way. Fifth, by **building alliances** to promote responsible practices, as well as spreading broader values and norms with respect to human rights, good governance and accountability, inclusion and equality (SDG Fund, Harvard Kennedy School CSR Initiative, & Inspiris Limited, 2015). Sixth, by **correcting market failures** across borders, by internalizing markets and organizing practices on an international scale (SDG Fund, Harvard Kennedy School CSR Initiative, & Inspiris Limited, 2015; Van Tulder, 2018).

Although every SDG relates to the role of business, two are worth highlighting as crosscutting themes: **SDG 12** focuses on production and consumption and includes a specific target 12.6 on "adopting sustainable business practices and reporting" whereas **SDG 17** includes two targets on multi-stakeholder partnerships. On top of that, business is expected to be a provider of better labour environment for human development (targets 8.5 and 8.8), to address global issues as financial providers and responsible stakeholders in society (Hayakawa, 2016).

2.4 The need for partnerships and collaborations

Realizing the SDGs and leveraging the market opportunities that they represent requires companies to pioneer new forms of collaboration across industries and economic systems (WBCSD, 2018). As demonstrated earlier, it is now well established that the SDGs will

only be achieved if all stakeholders work together in effective partnerships (SDG Fund, Harvard Kennedy School CSR Initiative, & Inspiris Limited, 2015). Indeed, achieving the agenda will not be possible if companies remain isolated and if only few sustainable pioneers drive the shift. In a 2014 survey (GRI, UN Global Compact, & WBCSD, 2015), 90% of a sample of 38,000 executives surveyed agreed that effectively addressing sustainability issues cannot be carried out in isolation. However, partnerships between businesses and the United Nations, as highlighted in a study from United Nations Global Compact & Accenture (2018), adopt persisting traditional approaches characterized by short-term collaboration and bilateral arrangements, sometimes restricting the ability to scale up impact.

The challenge of ensuring that multiple actors work together is at the heart of many 'wicked' sustainability problems. Cooperation between actors across scales, in diverse contexts, and over time, is fundamental to implementing the SDGs (Bowen et al., 2017). SDG 17 explicitly recognizes business as indispensable to "global partnership for sustainable development". Indeed, SDGs realization will not materialize from a CSR strategy disconnected from the business core and will therefore require companies to integrate SDGs into their longterm business strategies and renew their thinking about stakeholder engagements (Pedersen, 2018). Multi-stakeholder collaboration would maximise impact of the activities in the multiple fields and contribute to enhance awareness and legitimacy of their efforts. They may work as increased incentives for companies and generate virtuous cycles of SDG implementation in the whole society (Hayakawa, 2016).

Currently, based on a survey from GlobeScan & SustainAbility (2017) on 500 sustainability experts, 51% experts are developing or plan to develop products/ services to provide solutions for the SDGs, whereas an encouraging amount of 35% pursues or considers to pursue multi-stakeholder collaborations to support delivery of the agenda. Additionally, from a survey performed in 2017 by CSR Europe and GlobeScan on 160 European business leaders, the majority was open to collaborating with business partners (63%), more than with any other type of stakeholders (CSR Europe, GlobeScan, & Forst & Sullivan, 2017).

2.5 Goal of Sustainability

The ultimate goal of creating the notion of sustainability as an organizational principle for the planet is to promote a well-functioning alignment between people, society, economy and the life-supporting ecosystems of the planet. This alignment reflects a specific sort of dynamic equilibrium in a population's interaction with its environment's carrying capacity. The focus of a significant definition of sustainability must be this particular equilibrium (Emas, 2015). In our moment, this balance has been significantly troubled by the exponential intensification of human activity and the resulting demand for resources, as well as the generation of waste by-products that exceed the regeneration and absorption capacity of the planet. These variables together render the present human affairs trajectory unsustainable. (Sabrina Courtois 2019)

2.6 Reasons for Sustainability

Many studies have identified the reasons why sustainability must be a part of our day-to-day activities. A few of those benefits are highlighted below.

- Relations with the community: Sustainability awareness among the general public is improved along with an enhanced knowledge of the effect of businesses on societies. Identifying problems that are important to stakeholders can promote allegiance and trust that can be crucial for a business to be conducted on a daily basis
- Regulations: Government laws require firms to deal more frequently with sustainability. At the same moment, non-compliance with laws can result in penalties, legal costs, activities being closed and corporate reputation being reduced.
- Societal and moral duties. They have a duty to manage sustainability because businesses have an effect on the environment, society, and economy.
- Imperatives of cost and income. Sustainability benefits can result from higher revenues and lower expenses. Improved corporate reputation can lead to enhanced revenue while more effective resource utilization and process improvements can reduce the general price of a company. Being proactive and decreasing operational hazards that can result in harm to the environment can also reduce the general price of a company.

Furthermore, the potential advantages of adopting sustainability in decision-making can function as a driver of change as studies have shown that effective execution can enhance companies in several respects. Sustainability is increasingly referred to by company leaders as a necessity to compete. Although it is difficult to quantify, the implementation of sustainability can increase both business reputation and competitiveness. Porter and Kramer (2006) contend that businesses should incorporate social and environmental problems linked to their activities into their policies as they can be a strong source of competitive benefit along with changes to innovation. Research has also shown that sustainably enhanced performance can lead to several advantages such as decreased operating costs, decreased risk, enhanced customer satisfaction, enhanced procedures, and enhanced reputation. (Sabrina Courtois 2019)

Silvius et. Al (2012) further asserts that the implementation of sustainability can lead to an enhanced job setting and enhanced employee motivation, leading to lower employee turnover. Deland (2009) agrees that intangible advantages stemming from the application of sustainability include enhanced employee motivation, confidence, and involvement. Furthermore, sustainability principles can assist safeguard, operate and develop a company (Savitz and Weber, 2014).

3. Sustainable Development

Overall human development over the past centuries has resulted in increasingly unfavorable modifications in climate and natural disasters, as well as wars and political and socio-economic instability. Human beings have adversely affected the world through their actions, endangering the survival of the Earth and future generations (Emas, 2015). These circumstances have suggested behavioral

modifications aimed at more rational and effective leadership of all resources that will allow less stress and effect on the environment (Bell, & Morse, (2008).

Within the notion of sustainable development that evolved in the 70s and particularly in the 80s of the last century, such accountable behavior that will guarantee the longterm exploitation of resources without jeopardizing future generations is regarded (Kuhlman and Farrington, 2010).

The idea of sustainable development is based on the idea of growth (socio-economic growth in line with ecological limitations), the concept of requirements (resource redistribution to guarantee quality of life for all) and the idea of future generations
(Possibility of long-term resource utilization to guarantee the required quality of life for future generations). The essence of the idea of sustainable growth stems from the notion of Triple Bottom Line, which means a balance between three pillars of sustainability – environmental sustainability-focused on keeping the quality of the environment needed to carry out financial operations and people's quality of life, social sustainability aimed at ensuring human rights and equality, preserving cultural identity, respecting cultural diversity, ethnicity and religion, and economic sustainability needed to preserve the earnings and living standards of natural, social and human capital(Tabassi et al, 2016).

Complete sustainable development is accomplished through an equilibrium between all these pillars (Dumrak et al, 2017), but the necessary situation is not simple to attain, as each pillar of sustainability must respect the interests of other pillars in order not to put them into imbalance in the process of attaining their objectives (Sánchez, 2015). Thus, while some sustainable development pillar becomes sustainable, others may become unsustainable, particularly when it comes to ecological sustainability, on which the general growth capability depends. (Sabrina Courtois 2019)

4. PROJECT MANAGEMENT

Since the earliest days of organized human activity, people have undertaken projects. For instance, our prehistoric ancestors ' hunting groups were projects; they were temporary undertakings for the community to obtain meat. Large, complicated projects have long been with us as well. In their day, China's pyramids and the Great Wall were about the same size as the Apollo project to send men to the moon (Industries *et al.*, 2002). In our daily discussions, we often use the word "project." For example, a wife can tell her husband that her main project for next week's Thursday is to disinfect all the washrooms in the house.

Many definitions have been given as to what a project is. The Project Management Institute (PMI) defines a project as a temporary endeavor undertaken to create a unique product, service, or result (PMI, 2017). The temporary nature of projects indicates a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. Projects have a number of features:

- Projects are distinctive.

- Projects are of a temporary nature with a definite start and end date.

- Projects are finished when the objectives of the project are reached or the project is no longer feasible.
- Projects are progressively elaborated

- Every project produces a unique product. No two projects are the same

The above listed are a few characteristics attributed to a project. A good project meets or exceeds stakeholders ' expectations

"Project Management has become a core competency and the management of one or more projects involves almost every manager. In addition, growing attention is being given to the role of projects in organizations" (Hyttinen, 1997). In the U.S. defense aerospace industry, Project Management first emerged as a word in 1953. Project Management can today be viewed as a professional discipline with its own expertise and skills body. Expertise in Project Management can benefit any type of organization. A holistic, integrative perspective of Project Management offers the most important in order to concentrate on how projects contribute to an organization's strategic objectives. (Eunice Adwoa Larbie 2019)

This perspective should also include the selection process of projects that can provide the greatest assistance for the strategy of a specific organization. The PMBOK Guide has identified five process groups that every project must undergo. This makes the process of undertaking projects much simpler and leadership is also made easier. The five process groups are defined as:

1. Initiating

2. Planning

3. Execution

4. Monitoring and Controlling

5. Closing

The fundamental concept of Project Management requires to be well explored and elaborated at the start of a project. In addition, this original stage involves project objectives, choices about partners and parties to carry out the execution of the project, and the project leader writing the plan and/or suggestion. Although the Project Management cycle and other techniques of Project Management generate a narrow structure, should be innovative and motivating in leadership (Hyttinen, 1997). Instead of looking at the project as a closed entity, this view considers the project in close touch and collaboration with the base organization and its environment as an open organization.

The scope, time and resource are three major dimensions that define the performance of the project. These are interrelated and interactive parameters. Generally speaking, the connection depicted as an equilateral triangle It is obvious that any change would influence the other in any of the sizes. For example, if the scope is expanded, it would take more time for the project to complete, and the cost would also increase. The range and price would also need to be lowered if

time is decreased. Any price shift would likewise be expressed in scope and time. Successful completion of the project would involve specific objectives to be achieved within the planned moment and budget. A fourth dimension, stakeholder satisfaction, has been added to the project in recent years (Definition, 2004). However, the other leadership school claims that this dimension is an intrinsic component of the project's scope that defines the requirements to implement the project. Consequently, a project's efficiency is evaluated by the degree to which these three parameters (scope, time and price) are accomplished. (Eunice Adwoa Larbie 2019)

5. Sustainable Project Management

Sustainable development has been incorporated into different levels of society in recent years and Projects as instruments for change affect sustainable development greatly. Sustainability is one the most important issues that need to be considered in decision-making process in different levels of project-oriented organizations; hence it is important to know how to move from theory into practice (Kuhlman and Farrington, 2010). Dramatically the current ways of exploitation of the natural resources are not sustainable, we need to change them and it is inevitably related to projects and therefore to the strategies of organizations.

Thus, the demand to move from the current and traditional approach of project management toward a sustainable management is a necessity; in order to change the profession of Project Management into a true profession (Martens and Carvalho, 2017). The idea of integration of sustainably into Project Management highlights the complex aspect of professional Project Management, not only from technical point of view but also because the project manager should deal with organization factors that are beyond its control. At the IPMA World Congress 2008, the concept was initially launched where the significance of sustainable Project Management was highlighted and this concept was suggested that "the further growth of the Project Management industry needs Project Managers to take responsibility for sustainability." (Ning, Zhang, & Li, 2009).

Then several debates on the inclusion of sustainability in projects and Project Management were raised at the IPMA specialist seminar in 2010, and although some research has been carried out in this region until now, it is still an evolving field of research.

"Sustainable Project Management is the planning, monitoring and controlling of project delivery and support processes, with consideration of the environmental, economic and social aspects of the life-cycle of the project's resources, processes, deliverables and effects, aimed at realizing benefits for stakeholders, and performed in a transparent, fair and ethical way that includes proactive stakeholder participation" (Silvius and Schipper, 2015). This definition addresses the dimensions of sustainability by referring to the triple bottom line of economic, economic and social elements, the temporal and spatial dimensions of the project's life cycle of assets, procedures, deliverables and impacts, the dimension of stakeholder engagement and the dimension of values. (Eunice Adwoa Larbie 2019)

Sustainability can be regarded from distinct angles in delivery projects. Four elements of sustainability have been acknowledged by previous studies: product-related, process connected, organization, and individuals. Project sustainability concerns the project delivery process and the deliverable project (Oke *et al.*, 2019). However, since the deliverable project is intended and implemented during project delivery, sustainable

Project Management also affects the deliverable project. Sustainable Project Management involves using practices that ensure that the project is delivered socially, ecologically and profitably so that the deliverable project is socially and environmentally acceptable throughout its life cycle.

Different methods to characterize sustainable Project Management have been implemented. For instance, Klakegg (2009) suggested obviously expressing
sustainability as an assessment criterion, holistic sustainability planning included in the bottom line, reviewing the issues and expectations of appropriate stakeholders, and ensuring flexibility in project delivery to boost investment value. Energy saving during a building's construction stage and life cycle helps to reduce greenhouse gas emissions. Considering the lifecycle view in road construction projects helps to decrease greenhouse gas emissions. Sustainability and Project Management should be incorporated to ensure that Project Management is updated and prepared to deal with worldwide sustainability issues. (Morgese, 2011; Eunice, 2019)

6. SUSTAINABILITY IN PROJECT MANAGEMENT

The concept of sustainable development within the project management context has continuously evolved over the past decade highlighting various views over the fundamentals that processes and procedures should build on (see Table 1). One of the first contributors to this field was Lambuschagne & Brent (2004), who revised project management frameworks in the process industry to include two core principles of sustainable development, which are intragenerational and intergenerational equity. These highlights early endeavors of introducing the spatial and temporal element of sustainable development in project management practices. Despite the fact that the authors (2019) name only two out of the eight principles present in project management literature, their work briefly touches upon other sustainability related considerations to be made. Thacker et, al., (2019) argue that project evaluation criteria focus on financial indicators with very limited questions on environmental factors and no mention of social factors. Therefore, their contribution to the field is made through the development of a model to assess projects based on the triple bottom line definition of sustainability. Furthermore, as part of social sustainability, the authors (2019) highlight stakeholder participation as an important criterion to assess, while arguing that organizations need to be accountable for the impact they exert over the triple P.

In an attempt to relate sustainable development to project management while pointing out challenges and potentials to its implementation, Gareis et al. (2009) differentiate content-related definitions of sustainable development from process-related one. The authors argue that the former present less relevance to the study of sustainability integration in project management as they are focused on contents of projects and their results (eg. climate change, clean energy, public health, social inclusion) rather than the management of them. By contrast the latter provide for the guiding principles of sustainable development, which coincide with the fundamentals proposed by Labuschagne & Brent (2004) with an additional emphasis on values and ethics as well as risk reduction instead of accountability.

Influential publications that followed are dated from the past five years; these being triggered by an increasing interest in developing models that can break down the existing barriers between

the two fields. In a PMI (Project Management Institute) study centered around assessing how eight sustainability principles can be considered in order to improve the quality of the project assignment and of the project management process, the authors (Messikomer et al., 2011) referred to a simultaneous and balanced economic, ecologic and social orientation, as well as a temporal, spatial and value-based orientation as principles that can offer possibilities and limits to sustainable development.

Following researches (Turner, 2010; Goedknegt & Silvius, 2012; Silvius et al., 2012; Gareis, 2013; Økland, 2015) build upon the aforementioned four principles identified by Massikomer et al. (2011), highlighting the core fundamentals that literature perceives as crucial for ensuring sustainability in projects and corresponding processes. An exception to this is Økland (2015,) who disregards the principle of balancing and harmonising the people, planet and profit pillars as well as value and ethical considerations as fundamentals of sustainable project management. Nevertheless, the author stresses the importance of developing within the limits of the social, ecological and economic systems as these are interconnected and influence each other in a highly complex way. This fundamental is complemented with the spatial and temporal dimensions as well as with considerations about reducing risk and making an accurate risk assessment as part of preventing the occurrence of negative externalities over any of the three Ps.

In addition to the four fundamentals highlighted by Messikomer et al. (2011,), other authors also referred to transparency and accountability (Goedknegt & Silvius, 2012; Silvius et al., 2012), stakeholder participation (Turner, 2010; Goedknegt & Silvius, 2012), risk reduction (Turner, 2010; Goedknegt & Silvius, 2012) and consuming income and not capital (Silvius et al., 2012). Goedknegt & Silvius (2012) make a separate consideration of transparency and accountability as well as stakeholders and participation, but given the significant overlap between the interpretation of these fundamentals as well as the suggestion of grouping them supported by the majority of the authors, the paper jointly discusses transparency and accountability as well as stakeholder participation.

6.1 Incorporating Sustainability in Project Management

There are some indicators that can be used by businesses to assess their present levels in distinct perspectives and also facilitate bridging the gap between real and desired levels in order to translate the primary requirements of a sustainable idea into company capacity. A checklist for sustainability consideration in projects and Project Management has been created by the Global Reporting Initiative (GRI), an organization pioneer in sustainability reporting. An established type of checklist is presented in Table I, basically it has the ability to be broken down into more information and used by Project Managers to evaluate the project at various points of account such as project assets, business processes, business models and outputs. The following are the primary principles of sustainability that can be a guideline in Project Management application of the notion of sustainability:

1. As stated earlier in this chapter; sustainability is about harmonizing social, ecological and economic pillars, and businesses should attempt to fulfill them all.

2. Sustainability focuses on both long-term and short-term goals, while in the current definition of Project Management, the long-term vision is out of the boundaries.
3. Companies are under the impact of global stakeholders; therefore, sustainability is linked to local as well as global orientations. As a result, Project Management should also be globalized if the companies are globalized.
4. Sustainability is about consuming income and stays intact in natural capital. In addition, the business should also handle its social and environmental capital.
5. Transparency and accountability are significant sustainability components. Companies need to demonstrate to all prospective stakeholders a clear and regular report on their choice and the social and environmental impact of their actions, and the business also takes accountability for their actions and policies.
6. Sustainability is not a set objective is motion direction and a main component of sustainability is "changing" to a more sustainable business, so personal value and ethics are critical components.

Despite the need to be conscious of the notion of sustainable development, moving from theory to practice is also crucial. Basically, three levels of inclusion can be regarded in order to bring the notion of sustainability into practice: personal (Project Managers), level of project and level of organization. These sections concentrate on the case level of the project: how it will influence the procedures of Project Management. (Eunice Adwoa Larbie 2019)

TABLE 1: Checklist for Integrating Sustainability in Projects and Project Management

Economic Sustainability	Return on Investment and Economic Performance
	Business Agility and Flexibility
Environmental Stability	Transport
	Energy usage and Emissions
	Waste recycle and disposal
	Water usage and recycling
	Materials and resources Reusability and supplier selection
Social Sustainability	Human Rights
	Labour Practices and Decent Work
	Society, Customers, and Product and responsibility
	Return on investment and Economic Performance

Project Management procedures can be described in five process groups based on the PMBOK normal approach: initiation, planning, execution, control, and closure. According to research carried out on a group of projects; the extent to which the scope and objectives of the project provide opportunities to integrate sustainability has been evaluated for each process group as well as the opportunities provided by the project for integration (Delnavaz, 2012). It, therefore, disclosed that while the integration potential of sustainable development and Project Management exists in all process organizations, the region and extent of inclusion differs. For example, the initiating process has a high potential to integrate sustainability concepts into the project's content (objective, intended outcome, deliverable), while the controlling process offers more opportunities to integrate sustainability concepts into the project process. Illustrates the best regions for integration into Project Management of sustainable development. (Eunice Adwoa Larbie 2019)

In the same approach, the impact of the main sustainability principles on Project Management processes has been recognized. As it is expected both transparency and accountability and Personal values and ethics have the most impact on the Project Management process.

In this pathway, Project Managers are in the frontline of organizations to achieve sustainability. EU conference of PMI explained the importance of issue: "Corporate social responsibility is too big an issue to leave to someone else to address" and Project
Management will change from „doing things right" to „doing the right things right. For this reason, sustainability integration extends the Project Management system boundary, in other words, it emphasizes the idea of corporate social responsibility that full project life cycle should be included and that the full project life cycle basically includes: project life cycle, asset life cycle, and product life.

The difficulty of incorporating social and environmental dimensions of sustainability into programs and projects is one of the most significant obstacles in integrating sustainably. Some research has been carried out to develop a structure to fulfill this integration in the operational term, although some are still conceptual frameworks, there is a good potential among this method of integrating environmental issue and performance measurement systems (PMS). One of the most popular performance measurement systems, the Balanced Score Card (BSC) has been the most widely used and recommended tool between companies to translate the non-financial sustainability issues into their goal.

6.2 Sustainability in the Project Management Process Group

The PMBOK GUIDE has identified ten (10) knowledge areas that are aimed at providing support for the process groups by providing input and outputs as well as tools and techniques for each process. These process groups (mentioned earlier in this chapter) should not be considered as stages of the project's lifecycle as their integration and interaction vary depending on their features. Some procedures constantly happen, others overlap, and all process groups may happen in one project stage (PMI, 2018).

2.10.2.1 Initiation

Project Managers should initiate sustainability dialogs, including environmental, cultural and economic elements, and suggest alternatives that are useful for a worldwide sustainability view and not just for the project locally (Deland, 2009). This involves questioning choices such as alternatives to equipment and logistics. The author further argues that enhanced sustainability should be developed as a prerequisite for the end product and not just as a distinct condition.

While the Project Managers is not always engaged in the project demands and constraints development phase, it is vital to increase sustainability issues and dialogues. Tharp (2011) agrees that initiating a sustainability dialog with each client is crucial in the process as the client has the authority to decide the direction of the project. Deland (2009) therefore considers it essential to prioritize those elements that are important to the size and complexity of the particular project, since it may not be feasible to incorporate all elements of sustainability.

Deland (2009) further describes that the objective should be to incorporate sustainability in such a way as to minimize unsustainable exceptions. Tharp (2011) further claims that sustainability obligations need to be regarded iteratively throughout the entire project lifecycle in the process of communication, stakeholder and risk management. Silvius et al. (2012) add that the manager must balance the sustainability limitations in addition to the traditional limitations in the early phases of the projects.

2.10.2.2 Planning

Attention should be given to sustainability in scheduling procedures. Sustainability baseline measurements, monitoring, and reporting must be included in project planning as these operations are among the most costly and difficult elements of sustainability. However, these problems are minimized by creativity and incorporation into the design and planning stages (Deland, 2009). Tharp (2011) claims that by incorporating sustainability values into project plans, the definition of outcomes, circumstances, objectives as well as sustainability-related success factors can be accomplished.

Silvius et al. (2014) and Tharp (2011) define the significance of incorporating sustainability into nearly every scheduling phase since sustainability alternatives and alternatives influence cost estimates, budgeting, communication, and risk assessment. As the project plan is what officially authorizes a project and its originally stated requirements, it is increasingly essential to integrate values of sustainability at these levels. Back casting may be useful during the planning phase, a tool promoted by The Natural Step (TNS), according to Deland (2009). In back casting, project executives identify the required level of end-product sustainability and use back casting as a manner to generate a more comprehensive manner to achieve it.

Deland (2009) says that the Project Managers is accountable for teaching and informing members of the project about sustainability and what is expected of them in the project so that everyone knows what to achieve and how. Project Managers are also accountable for incorporating the circumstances and values of sustainability into procurement and procurement procedures. This involves selecting contractors, subcontractors, and vendors who can deliver on the project's sustainability demands. When the project group commits and engages in

sustainability-related questions and issues, Project Managers perceive that it leads to a higher overall performance according to Deland (2009).

2.10.2.3 Execution

According to Deland (2009), embracing and maintaining a systematic strategy throughout the execution phase is the main characteristic of the project development team to effectively integrate the sustainability demands and circumstances. The most important activity is to disseminate data and increase awareness among project participants, subcontractors, and stakeholders about the notion of sustainability. The Project Managerss must constantly monitor and advise project participants and use their power to guide them in the correct direction to minimize material use, decrease waste and save energy.

Tharp (2011) and PMI (2013) point out that the execution method can be difficult as views and what elements can differ between stakeholders and project members that are prioritized. The selection of suppliers and subcontractors in this phase continues a critical activity (Deland, 2009). Tharp (2011) further defines the Project Managers' essential position in this process as the manager is acquainted with day-to-day operations and execution, thus allowing a more thorough analysis and perception of the social aspects of sustainability. The culture of the project, standards, and traditions can make a project that is vital to comprehend differently. It will also be challenging to coordinate all stakeholders towards a common objective.

2.10.2.4 Monitor and Control

Deland (2009) argues that it will help during this stage to embrace a holistic approach to sustainability elements and integrate them soon as circumstances in the project lifecycle. As difficulties and problems occur during the project, the sustainability obligations identified, particularly those that interfere with traditional limitations, may be tempting to modify, prevent or reduce

2.10.2.5 Closing

Regardless of how much effort sustainability commitments have been focused, the closure method is where the findings become clear and visible. Project closure, as well as contract closure, are vital tasks (Deland, 2009). It is essential to concretize the outcomes in order to improve knowledge and consciousness of what activities were taken and what they resulted in. With an instance illustrating cost savings owing to closed-loop procedures and LEED certifications, Deland (2009) clarifies this. (Eunice Adwoa Larbie 2019)

In addition, it is an important and beneficial activity to communicate and report both quantitative and qualitative results from the progress and benefits derived from the project and the learning associated with sustainability integration. Continued maintenance and operational requirements should be handed over to guarantee proper use of the estate during the contract closure stage (Deland, 2009; Braun & Clarke, 2006; Baxter, Susan, & Jack, 2008).

7. Importance of Sustainability in Project Management (SPM)

Given the growing significance of sustainability that needs to be integrated into organizations, the notion of SPM has continually evolved. Silvius et al. (2009) described Sustainable Project

Management as "managing project-oriented policy, asset, or organizational change, taking into account the project's financial, social, and environmental impact, its outcome, and its impact, for now, and for future generations." They stated that all dimensions of sustainability, including environmental, economic and social aspects, need to be strongly related to all major Project Management operations. Implementation of SPM is crucial for organizations because the notion of standard Project Management offers restricted consideration for sustainable development. Labuschagne and Brent (2005) asserted that integrating sustainability into Project Management as the main company instrument for many organizations could help professionals satisfy the organization's and stakeholders ' requirements. The idea of SPM allows them to calculate project environmental, social and economic effects on society. Keeys and Huemann (2017) referred to the need to change the direction of Project Management from result-oriented to life-cycle.

The concept of SPM embraces iterative processes linked to the life cycle of the project and includes aspects of sustainability in every phase and activity in the life cycle. In addition, to guarantee the inclusion of sustainability aspects and efficient execution of sustainability, the sustainability effect of project deliverables/results on society requires to be evaluated. Lack of sustainability factors in Project Management ideas and techniques may hamper Project Managers ' capacity to sustainably deliver portfolios, programs, and initiatives (Marcelino-Sádaba et al., 2015). As a consequence of sustainability ignorance, Okereke (2017) explored countless unsuccessful building projects in Africa. His findings include corruption, bad planning, absence of stakeholder cooperation, absence of funds, and absence of skills and preparation. The integration of sustainability into Project Management is therefore essential in order to overcome multiple issues in Project Management.

Tharp (2012) described three main SPM principles, including planet (environment), profit (economy) and individuals (society). Planet aspect linked to resource utilization management and evaluation, procurement procedures, organizational norms, requirements for capital equipment and facilities. The profit element relates to the attitude to return on investment in identifying and measuring the financial effect of investment in projects and ensuring that it aligns with the organizational strategy. The human resource dimension concentrated on abilities, accountability, culture, and process.

Many scholars then noted and extended the three primary principles listed above to highlight significant elements of sustainability that need to be emphasized in Project Management. For instance, Silvius et al. (2012) recognized six basic SPM principles consisting of

i.   balancing environmental, social and financial advantages,
ii.   short-term and long-term project orientation,
iii.   local, regional and international project orientation,
iv.   morals and values,
 i.   accountability and accountability of projects, and
ii.   vi. consuming earnings, not capital.

In a more recent study, Chawla et al. (2018) deliberated other sustainability values comprising the project life cycle, clear strategies, standards, and methods, and the use of resources. Martens and Carvalho (2017) noted that SPM has a significant effect on the achievement of the project.

Adriana and Maria (2013) discovered that the application of SPM contributed directly to the effective results of the project. They researched project reports from 35 firms and discovered that SPM was practiced by most businesses and they were successful in the project. The findings of the assessment disclosed that 67 percent or 83 percent of project success is generated by 100 percent sustainability inclusion. Similarly, 86%, 71%, and even 57% inclusion of sustainability lead to 100% project achievement (Mishra, et, al., 2011).

Practitioners should incorporate sustainability into their project approaches to effectively address present problems, including stakeholder management, project life cycle management, and decision-making improvements (Marcelino-Sádaba et al., 2015). This view is consistent with the job of Keeys and Huemann (2017) that noted the implementation of SPM in organizations could enhance communication and cooperation between the business and stakeholders and boost the satisfaction of stakeholders. They also added other SPM advantages including improving Project Management and completion effectiveness, creating sustainable value for organizations, and maintaining strategic alignment between sustainability, company, and projects in an efficient manner.

Tharp (2012) addressed SPM application to boost sustainable competitive benefit, encourage viable results, address social elements for project team members, boost Project Management transparency, and efficiently deal with Project Management complexity. The argument above confirms that in Project Management important aspects of sustainability cannot be ignored. Incorporating sustainability into Project Management enables professionals, especially Project Managers, to design, implement, monitor/control, and eliminate projects considering environmental, financial, and social effects.

In the Project Management Body of Knowledge (PMBOK) standards and guidelines, the significance of sustainability was also identified and well recognized by including project stakeholder management as a fresh knowledge area in Project Management.
Project Management Institute (PMI) sees several sustainability-related characteristics including decision-making participation of stakeholders, legal freedoms such as occupational health and security, property, sharing of information and management of assets (PMBOK, 2017). Although countless studies have recognized the contribution of sustainability to project leadership, its practical implementation in organizations is not readily accomplished owing to the concept's complexity. (Eunice 2019)

8. CONCLUSION

Literature up to date has suggested eight principles of sustainable development in project management which multiple authors have perceived as necessary to assure that future generations will equally benefit of the resources currently available. Despite a growing interest in establishing the fundamentals of sustainable development goals, researchers have not yet reached an agreement over the core sustainable considerations to be made. Therefore, this research thesis found it important to bring the varying contributions of multiple researchers in the field of project management and sustainability under one discussion to examine how these eight principles are applied in project management and strengthen the grounds for future research.

Balancing and harmonizing social, environmental and economic interests of projects is a significant consideration to be made as business objectives are inseparable from the society and the ecosystem in which organizations operate. Therefore, sustainable development goals can solely be achieved through building on the three pillars concurrently. The study of the temporal and spatial dimensions has been highlighted by all key authors identified (Gareis, 2009; Gareis, 2013; Goedknegt & Silvius, 2012; Lambuschagne & Brent, 2004, Messikomer et al., 2011; Økland, 2015; Silvius et at., 2012, Turner, 2010) and it's important to the study given the high geographical interconnectedness of projects organisations as well as the need to prevent any negative impact over the quality of life of future generations. Incorporating sustainability considerations in project management implies a unified, value driven, ethical approach over decisions that affect stakeholders and organisations thereby exploring ways of implementing this principle is central to bettering future business relations amongst organisations. Transparency and accountability are important to ensuring sustainable development goals through projects as it builds trust amongst stakeholders while ensuring that occurred risks and errors are dealt with adequately by responsible parties. To prevent harm to the people, planet and profit pillar of an organisation and to implicitly assure sustainable development, a thorough risk evaluation that addresses all three pillars is needed and therefore the study of this principle is also necessary. The principle of stakeholder participation stresses the need of consulting and engaging with stakeholders to best use the variety of knowledge they possess as well as to maintain their commitment to 3P project goals throughout the whole project lifecycle. Therefore, sustainable development depends on their participation, highlighting the need to explore ways of achieving it. Finally, using income and not capital is perceived as a core principle to sustain people's, planet's and businesses' ability to produce or generate knowledge, labour, resources and profit as much for present as for future generations.

Based on the theoretical framework developed above, the researcher is able to develop a model (see Figure 2) that illustrates the eight principles of sustainable development that project management practices need to build on thus serving as basis for the present study. The rationale behind emphasising on the people, planet and profit pillars around project management practices is that triple P considerations need to be made throughout all eight fundamentals proposed by literature. Hence the suggested model aims to guide the research throughout the whole process which will be culminating with practical and theoretical contributions provided to literature.
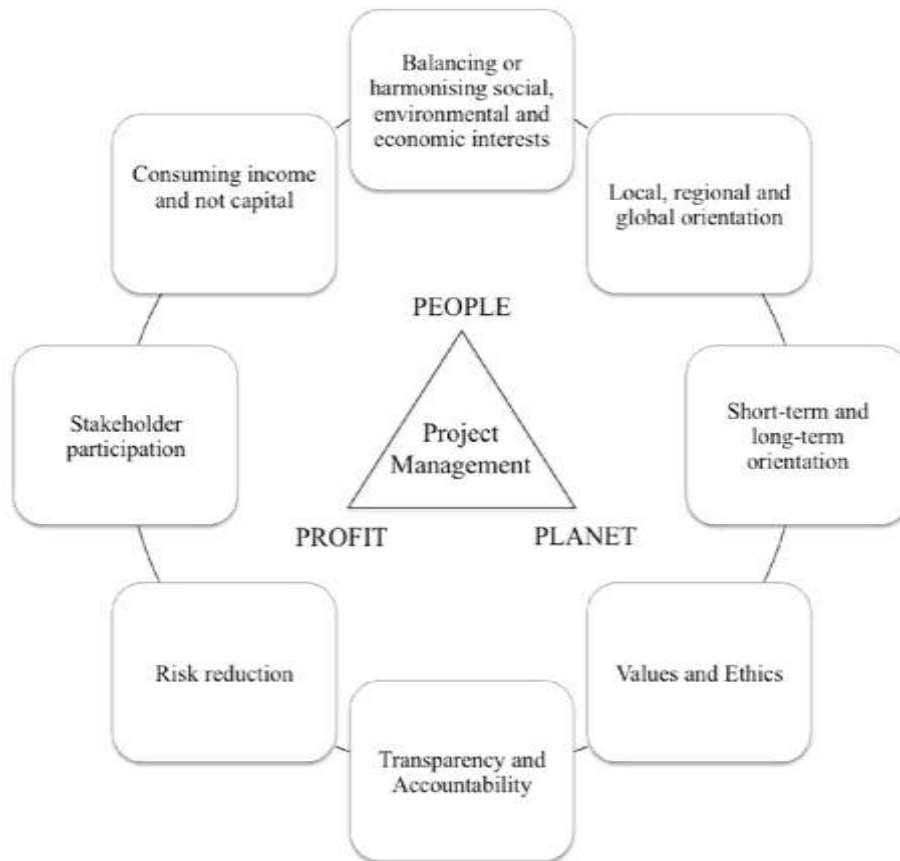
Figure 2. Principles in project management.

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