

That it is an assessment based on evidence report examples

[Business](#), [Management](#)



Introduction

It is becoming clear that the many practices that are seen in lifestyles today cannot meet sustainability in a definite manner. The planet is becoming small and more resources are not in a position to be produced. What is more, there are many inhabitants who cannot even provide the very basic needs that they need. The problem of the need to live with the limited resources that are there today with equal access to limited resources is one of the concepts of sustainable development. There is complexity in engineering and products; this has called for engineers to consider ways of approaching sustainability development in a wholesome manner (Alarcon, Rivas and Serpell 65).

Question 1

CEEQUAL is a scheme that is based on three sustainability dimensions:- social, economic and environment. It combines the systems of planning and that of the client's economic and financial models by considering a number of social and environmental issues. This also includes issues of indirect economic basing on materials, energy and waste that can largely impact on the project proposal outcome (Alunkal, Dubois and Rick 86).

It is thus a tool that aid in driving the profession and the civil engineering industry for further sustainable construction and development. It is established basing on modern rules and environmental and good practice in the civil engineering projects. It aids designers, clients and contractors in

handling the environmental quality and myriad social matters related to the project (Bakos and Brynjolfsson 65).

It complements voluntary decisions or legislative mandate to perform an Environmental Impact Assessment. It does not assess the environmental necessity for the project nor its social acceptance. The objective is to incorporate the social and environmental matters in the construction and the design process. The main objectives of the scheme are:-

The scheme can be of help in advocating for the matters that are championed by EIA and to walk the talk by ensuring that the stipulated actions and recommendation by the EIA are implemented in the projects. It serves as a check to ensure that what is built is done according to the recommendations (Bakos and Brynjolfsson 98). The scheme according to their handbook is:-

Is a tool used by the project team to ascertain how best they taken into consideration matters of the social and environment.

It is a mechanism to ensure that the assessments are verified both independently and externally and that recognition is accorded.

That it is a question that has been set for the project team to use as a checklist to essentially effect the construction and design development.

PSM however, is a process that is established under four tenets whereby the sustainable development matters put into dimensions-: social, economic and environmental. The individual dimensions, issues are categorized into sub

themes and themes. Whereby, individual sub themes are related to one or more sustainable development indicators (Caron and Kirk 93). The individual indicators are described by a sliding scale referenced to modern goals, state of practice, and applicable regulations and laws. This makes PSM to differ to differ from

CEEQUAL as it is dictated by its approaches:

That the user can customize the project set indicators basing on the relevance of the indicators to the scope of the project, context and conditions keeping abreast goals, whole society issues, and sustainable development priorities (Angelro 73).

That the process puts into consideration trends in the state of practice, and the new set of benchmarks for sustainability in performance through successful and invention applications that may alter the capability of the process, technology and systems.

That the process offers a way out in laying out benchmarks of performance relating the achievements of others and establishing sky rocketing goals. It therefore acknowledges that despite the well laid foundation of sustainability issues, the approaches for tackling them are dynamic (Zunia organization 98).

PSM therefore believes that to establish a verifiable and valid involvement to a development that is sustainable it must be put in a design and applied in

way a way that its outcome is net , measurable, and impacts all sustainability dimensions through the entire life cycle of the project.

Question 2

Cross rail is the perfect example for the comparison of PSM and CEEQUAL. This because cross rails is common to the two and that it is the main mode of transport in the UK. Basing on CEEQUAL cross rail applied according to the hybrid bill - cross rail act. It is very tough and features most on environmental control. EIA has to performed and its findings be posted on the report on Environmental Statements (Koster 83). The findings from EIA were later changed to Environmental Minimum Requirements. This is a platform that ensures environmental management at the time of construction air and dust quality management, water control resource, movement of vehicles and neighbor impact. Above all cross rail as established Environmental management System (EMS) which is consistent with ISO certification. Cross rail in their construction also use the CEEQUAL and Building Research Establishment has an Environmental Assessment Methodology (BREEAM) and CEEQUAL. This is a clear indication of how CEEQUAL is reasonably applied (Lientz and Rea 39).

PSM on the other hand recommends that the consulting engineer ensures that the project to be undertaken is in compliance with Chapter 40 and agenda 21. They also recommend that local survey is conducted to ensure that the locality the project is to be carried out is safe from any environmental negative influence (Project management services 932).

Aspect

CEEQUAL

PSM II

Cross rails

It incorporates most features of rail involvement ensures environmental management at the time of construction air and dust quality management, water control resource, movement of vehicles and neighbor impact recommends that the consulting engineer ensures that the project to be undertaken is in compliance with Chapter 40 and agenda 21.

They also recommend that local survey is conducted to ensure that the locality the project is to be carried out is safe from any environmental negative influence.

Pipeline laydown

This framework is exhaustive when it comes to laying of systems that are there for a long time and that span a wide geographical area. They ensure that pipelines that are constructed do not become a nuisance after some time, or even if there is a fault in its course of use. It ensures that if this fault is realised, it does not affect the environment so much.

Although it has policies that address layout of such systems as pipelines, but it is lacking in lifetime use of such systems. It addresses the construction phase of the project but does not address the entire lifetime use of the system.

Hotels

It addresses the landscape use such that it asks if the landscape is being depleted. When constructing such systems as hotels, the landscape is ensured that it is not eradicated. There is a provision for this because it is a requirement that trees are planted to compensate the ones that have been destroyed.

It also addresses the energy and carbon which ensures that the waste that are produced in the amenity do not cause effect in the environment

It addresses all phases of the project except the use phase. It addresses the design and the implementation phases. Although it incorporates most of the issues that have been aforementioned before, but most of the important aspects are left out when the project is underway. It does not address the landscape issue and therefore the environment might be depleted in the long run.

Hospitals

This is an area which is adequately addressed in CEEQUAL. The carbon policy ensures that the chemicals that are used in an hospital do not get to the environment and therefore destroying it.

There is also material use which ensures that the waste that comes out of the environment are effectively managed so that it does not harm the environment. Waste management is also available and effectively addresses the waste that come out of the hospital facility.

It addresses waste management and carbon and energy policy sd well. The design and implementation phase are well taken care of in that the process of the construction is ensured that it does not affect the environment in any way.

Factories

This is an area which is adequately addressed in CEEQUAL. The carbon policy ensures that the chemicals that are used in an hospital do not get to the environment and therefore destroying it. Waste management is also available and effectively addresses the waste that come out of the factory facility.

Also addresses waste management equally well. It ensures that both the process of using the constructed facility does not bring any harmful effect on eth environment. Most of the issues that are addressed affect the construction phase (implementation phase and not the entire use).

Overall, CEEQUAL addresses both the construction and lifetime of a facility so that the use of the facility does not affect the environment. PSM II addresses the phases of the construction and the use of the given facility. In this regard, CEEQUAL is found to be effective and addresses the current issues that are required.

Question 3

Basing on the CEEQUAL award it is evident that the efficiency of the scheme is impressive since it is good PR and building of reputation, improvement of maintenance and project work, commitment to demonstrate the

environmental agenda and the cost savings. This is also evidenced by the Awards that they have been awarded both locally and internationally.

Project sustainability management

Lately, infrastructure projects have been significantly considered as part of necessity in the environment. Currently, environment is not only made of biodiversity, quality of air and water, pollution protection, protection of habitats and species and it also comprise of a wider range of components that affect the society either today or in the future, it also concerns about climatic change, resources effectiveness, life consideration as a whole, management of waste and proofing of the future (Salisbury 83).

In the past, projects were strongly based on compliance space, but today, the world has move to an extent where natural resources are responsibly managed through employment of best projects management has been the major area of concern (Robinson, Davis and Weeks 34).

It is believed that if thoughts are well utilized then social, economic and cultural considerations will take us not only to a firm environment management but to a well sustained management in all aspects of the environment such as social, cultural and economic (Lock, Project management 32).

For instance, in New Zealand, holistic approaches have been developed within their constitution. Some of these approaches include; Resources Management Act of 1991, Local Government Act of 2002, Land Transport Management Act- 2003 and Building Act among others (Karambu 90).

Framework that has been developed on the project sustainability management ensures that practices such as designation, construction and operational stages of the project are environmentally sustainable. Social and economic considerations are taken into consideration by the framework and its performance through provision of managerial tools that will drive and reward any behavior that will be outstanding on the project.

Sustainability principles usually assure that sustainable framework plays the following roles. The management level of a project is championed so as to commit a sustainable balance. Criteria for testing sustainability are incorporated, on such issues as efficiency on energy, renewable focus, consideration of whole life, waste management, biodiversity and ecology, aesthetics, land use and material use in order to design and evaluate alternatives verses relevant criteria (Chen 73).

Sustainability criteria such as energy efficiency, practices that proactively manage environment, involvement of stakeholders and their feedback, transport efficiency among others are incorporated into project construction phase. Simple measures on sustainability performance are established in order to monitor and ensure systems are in place. Teams that are responsible in the project should be aware and there after a culture of care is established in order to ensure natural environment and the people are well managed (Diaz 899).

Objectives of project sustainability should be related to the performance of both individuals and teams through team indicators so that progressive

improvements will be realized. Performance of the project is reported to the stakeholders by using effective tools to best communicate to them. Project team should work hand in hand with the stakeholders to ensure that community needs that were involved are met in the project. Finally, sustainable results are attained from the chosen project (Harrison and Lock 89).

Leadership

A focused design and construction project sustainability should be incorporated as it is under development in most parts of the world. In order to attain best practice in the project, it is rather better to establish a well supportive management with a sustainable manager who will be in charge of the project (Geiger 93).

The manager is able to work with teams in order to develop a customized framework for the project. The champion can further support in designing and construction of teams who would assist in risk and opportunity identification and take right measures to monitor project progress. In addition, the framework is also responsible in guiding performance that is in progress as far as sustainability is concern. It also establishes momentum and inspiration on how to report to the stake holders (Zunia organization 84).

Design phase

Sustainability principle is quite crucial as it entails several disciplines across the project within the design process. Those involve include planers, design engineers, environmental management specialists, ecologists,

communications, landscape designers, sustainability advisors as well as safety specialists. Innovation and creativity will be enhanced through a project delivery model as it supports several disciplines working together thus providing a more sustainable design solutions. Commitment on a wider should reflect the vision and values of the project at the management level (Bakos and Brynjolfsson 39).

In assessing the sustainability framework, the designer will be guided on how to consider issues that are related to design sustainability as options will be selected at each stage of design. The design team will finally discuss on what will be used on the framework. International frameworks such as CEEQUAL would be drawn with its tools in the latest infrastructure (Reddy 84).

Construction phase

In this phase, daily operation of the project is focused other than integration sustainability principles. It monitors, measure and finally reports and also ensure that teamwork is embraced. Commitment of the project is fully focused in this phase to assure a meaningful sustainability exists within the teams. The project should observe the resource compliance requirement in order to ensure a sustainable management is delivered. The compliance should further consider social and economic environment so that design is enhanced in the project (Project management services 78).

Sustainability and project systems

Policies, plans and systems should be reflected during the project so that decisions and commitments are sustained in the project. In order to ensure a

long living of design during the project plans, policies and systems should reflect the vision, mission and principles of the project and its commitment to achieve success in environmental results.

Sustainability criteria concerning the policies and plans for project management has to be incorporated appropriately. The processes of tendering and contracting should meet the project requirement and the performance of the social environment. Training is appropriately provided to enable teams at all the management levels understand on the project requirement. A regular communication is done to ensure performance is shared with stakeholders (Clemons and Row 87).

Creating a culture of care

A part from design and performance, it is also important to instill the sustainability into the culture of the project team. It is also clear that creating awareness is part of measurement programs. In working as a team, teams can benefit by finding solutions that concern social, economic and environmental perspectives (Robinson, Davis and Weeks 95).

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