UTM

UNIVERSITI TEKNOLOGI MALAYSIA

PROJECT REPORT PROPOSAL

SECJ1023 - PROGRAMMING TECHNIQUE 2

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TABLE OF CONTENT

INTRODUCTION

The 12th Sustainable Development Goal acknowledges that current consumption and production practices are not sustainable, leading to environmental harm caused by resource usage reduction. Furthermore, social inequality can be a contributing factor.The objective is for improved human well-being in the now and the future while increasing resource utilisation, decreasing waste, and limiting environmental harm by advocating responsible consumption and production.

This project aims to solve those problems by finding problems, inventing solutions and creating a sustainable plan. The Eco-Challenge initiative provides an answer. Using the Eco-Calculator tool, it assists faculty members in the computing department in understanding their environmental impact. Participants can make a significant impact by implementing simple daily habit changes, such as consuming less energy or using public transportation.

Additionally, the Eco-Challenge promotes cooperation and idea sharing. A culture of sustainability is fostered by bringing together community organisations, educators, and students. By working together, we can increase the program's impact and get closer to a time when we will treat the environment and its resources more responsibly.

In conclusion, the Eco-Challenge project provides a practical route to sustainable consumption and production practices. Through promoting collaboration, exchanging ideas, and encouraging people to implement minor yet significant adjustments, we get nearer to our goals where environmental accountability is a shared responsibility. We can therefore improve environmental sustainability for the benefit of both the students and the staff.

PROBLEM BACKGROUND

The universal problem of responsible consumption and production is a complicated issue that extends beyond both geographic and socioeconomic obstacles. Essentially, this problem is the result of a complicated relationship between poor resource management, wasteful manufacturing processes, and unsustainable consumption patterns that promotes the cycle of harm to the environment, inequality in society, and unstable economies. It is more important than ever to address this issue in considering the current environment of rapidly increasing urbanisation, industrialization, and population expansion.

SDG 12 - Responsible Consumption and Production highlights the need and advantages of rectifying this systemic imbalance. With the help of programmes like waste reduction, energy conservation, and sustainable resource management, SDG 12 seeks to pave the way for a more equitable, flexible, and ecologically sustainable future. But as consumption levels rise above global limits, damage to the environment is accelerated by production processes, and waste production exceeds formerly uncommon proportions, the current trajectory gets severely off course. This divergence threatens not only the aims of SDG 12, but also the overall goal of sustainable development, potentially undoing decades of benefits in reducing poverty, preservation of the environment, and social equity.

The importance of solving the problem of responsible production and consumption reaches far beyond protecting the environment. It has an effect on the livelihoods, public health, and equality between generations, resonating throughout society. Uncontrolled production and consumption have major environmental implications, ranging from deforestation and habitat loss to climate change and pollution. Furthermore, this issue has severe social consequences because unsustainable consumption practices, especially in emerging and excluded communities, worsen inequality, support exploitation, and contradict human rights.

In order to attain sustainability in this situation, the problem statement emphasises how important it is to change the production and consumption systems.If environmental preservation, social equality, and financial sustainability are to be prioritised, considerable changes must be made in society's concepts, corporate practices, and government structures. To overcome this problem, all parties concerned must collaborate, including students, educators and staff members

as a whole. We can pave the way for responsible consumption and production patterns by encouraging collaboration, creativity, and collaborative effort.

PROPOSED SOLUTION

The problem background of responsible consumption and production highlights a number of intricate challenges that the Eco-Challenge program seeks to address in a meaningful and workable way. Essentially, the Eco-Challenge uses the Eco-Calculator program to provide students the tools they need to take responsibility for their environmental footprint. Participants measure and analyze their daily effect through an organized challenge framework, which raises awareness and helps them make wise decisions about their consumption patterns.

In addition, the Eco-Challenge supports the ideas of energy efficiency, waste minimization, and sustainable resource management, all of which are strongly related to the goals of SDG 12-Responsible Consumption and Production. To address the larger objective of reversing the systemic imbalance in production and consumption, participants are urged to make adjustments to their everyday routines, such as taking public transportation or using less energy.

The Eco-Challenge's community-building component increases its efficacy even further. Through establishing a forum for cooperation between students, academic institutions, corporations, and civil society organizations, the project cultivates a sustainable culture that surpasses individual endeavors. By exchanging knowledge, rallying support from peers, and working together, participants not only increase their influence but also encourage others to adopt sustainable behaviors.

The Eco-Challenge as a whole provides a collaborative, expansive approach to addressing the problems related to Responsible Consumption and Production. By encouraging people to make big changes in their daily lives, promoting ideas collaboration, and promoting sustainable behaviours, the programme advances the goal of building a more adaptable, equitable, and environmentally sustainable future.

OBJECTIVES

This project aims to raise all individuals' understanding of how their everyday decisions impact the environment. It also will motivate each individual to support the implementation of sustainable practices in order to effect a discernible shift in behavior. Furthermore, for encouraging collaboration and idea sharing between students and staff in the faculty of computing. Moreover, cultivating the critical thinking skills among students and the staff are necessary to manage sustainability concerns. Finally, but just as importantly, expanding involvement and developing strategic relationships to increase the initiative's impact and reach.

SCOPES

The target for our project is all individuals in the faculty of computing in all age groups regardless of whether they are students or employees in the faculty of computing.