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A STUDY ON PERCEPTION OF COLLEGE STUDENTS ABOUT CONSUMPTION AND CONSERVATION OF NON-RENEWABLE ENERGY WITH REFERENCE TO MIRA-BHAYANDER OF THANE DISTRICT

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ABSTRACT
Energy is the most important basic resource for the existence of humans, without energy it is very difficult to live on the earth. Energy is used in various forms. It is used by consumers for basic purposes such as transportation, household appliances and for cooking. Our main source of energy is from fossil fuels, which can be exhausted within a time period. In order to protect the energy security and our earth from environmental damages, it is necessary to conserve energy. Energy can be saved in two ways namely energy saving behaviour and by using energy efficient appliances. Every person who consumes energy has the responsibility to save energy. Since students are considered as the major segment of the energy consumption, the study is conducted among them. The aim of this study was to understand students' awareness, attitudes, and behaviour toward non-renewable energy saving.

Keywords: Energy Conservation, Students, Electricity, Awareness, Attitude.

INTRODUCTION
Energy is required in every aspect of daily life. It is considered as one of the most important commercial goods for human activities. It is an essential input to all segments of the economy of a country. Thus energy is related to almost every major feature of modern human activity. Basic needs of men are food, shelter, and clothing. An adequate supply of energy is increasingly recognized as yet another basic need as it plays a latent role in obtaining all the basic needs.

Energy is an endless research topic as long as it is necessary for households to pursue their daily living. Electricity produced from fossil fuels has generated unsafe gases to the environment. Efficient use of energy is recommended and should be performed to prevent new energy crises in the future. Energy conservation can be accomplished without destroying people's current lifestyle in two ways. The first method is by purchasing energy efficient products and the second method is by low energy consumption behaviours or by efficiently using the energy without sacrificing the household comfort.

The life of man is closely associated with the environment that influences man's activities and at the same time influenced by man. Hence, man is the central factor in the total environment. Man is the maker and at the same time destroyer of the environment. But in recent years, the quality of the environment is declining at an alarming rate. This environmental crisis is only due to the man's action which causes pollution to the environment. Many people died on health issues caused by the polluted environment. So there is a need to save the environment from harmful things and this is a collective responsibility of the people. For this, people should know the current status of the environment and positive attitude to take effective steps to overcome this issue.

Educating the people on various procedures to save energy and environment will go a long way in decreasing the energy demand. We can add our efforts to this global problem by personal actions. The personal action includes becoming energy efficient and by dropping unnecessary use of oil, electricity and LPG gas.

Indians use energy from both the sources of commercial and non-commercial energy. The usage is supported by easy availability and low prices of the commodity. The development of energy conservation and good atmosphere is possible through awareness by environmental education. The knowledge, awareness, values and attitudes are acquired through education. Increasing public understanding on the energy situation and environmental awareness at the local and international level can convert passive consumers into active consumers of energy saving.

The study is focused on the young generation; they are the young buds of our nation. These young people will grow into future decision makers in the country, policymakers, investors, researchers and consumers. These young generations is going to face the energy demand in future. So they should know about the consequences of energy consumption and benefits of energy conservation. The students' spend their most of the time in colleges is a good opportunity to impart values and lasting impressions on energy conservation to develop an environmental concerned person. The key to the success of this environmental education program is to convince students through sharing information, to change their habits and behaviour. Students are educational agents who

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will influence their people in a positive way. 1.1 Types of Energy Sources The various types of energy sources are mechanical energy, sound energy, heat energy, light energy, electrical energy, chemical energy and atomic energy. The six sources perform a key role in the economic development of a nation. It enables us to cook food, pump water, communicate and travel from place to place. Energy is thus the very basis from the ancient days till date. Human material progress is largely depended upon the energy. Energy is the most basic resource in the existence of humans; without it, all else is impossible on earth. Due to uncertain energy security issues, the world is now keen in shifting from non-renewable energy sources to renewable energy sources. The climate change is mainly due to the burning of fossil fuels. The pressure is growing in the worldwide community to take action immediately to protect the earth. The rising level of energy intake will drain the limited energy resources sooner. So, the energy conservation is paying attention at global concern. The shortage results in frequent power breakdowns disrupt daily life, causes manpower loss in offices and adversely affects the industrial production and thereby the economy. 1.2 Classification of Energy 1.2.1 Renewable Energy and Non-Renewable Energy "Renewable energy" sources are naturally renewed by nature within a time period. The production and consumption of a renewable energy resource can be seen as a self-sustaining circular process in which the resource base and the supply potential do not get eroded by the continuous use. Examples of renewable energy resources are geothermal energy, hydropower energy, solar energy, and wind energy.

REVIEW OF LITERATURE

Guo Maaet al (2013) has conducted a study on attitude towards energy and attitude towards conservation of energy in household electrical appliances. The results revealed that citizens have less knowledge on how to save energy in the house and their knowledge level on the topic is also low. In addition to that the result showed that consumers have some interest to save energy without compromising their comfort and convenience. They respond to economic incentives like high electricity prices, discounts on electrical appliances. The researcher recommended that government should alter these strategies in promoting energy saving according to the consumers.

Booi- Chen tan and Tech-Chai Lau (2009) have examined the students' energy usage pattern. The objective of the study was to find the difference in energy consumption behaviour of students, gender, business and non-business students to quantify the sustainable consumption. The researcher found there was no difference in gender and course taken on the sustainable behaviour. He also indicated that there was a medium level of energy consumption behaviour.

OBJECTIVES OF THE STUDY

1. To assess the knowledge and perception of students on energy saving in transportation, household electrical appliances and gas consumption.
2. To find the attitude of respondents towards energy and environment.
3. To measure the level of students attitudes towards energy saving on transportation, household electrical appliances and gas consumption.

RESEARCH METHODOLOGY

DATA COLLECTION:

- Primary data – The primary data is collected through a structured Questionnaire form.
- Secondary data – The secondary data is collected through the web and the websites have been mentioned in the reference.

SAMPLE DESIGN:

- Population – Population for the analysis was general public.
- Sample – Sample for the analysis included students.
- Sample Size – A sample size of 67 respondents has been undertaken.

SAMPLING METHOD:

- The sampling technique for the Analysis was non- probability technique.
- The data was collected online via GOOGLE. DOCS- the form was uploaded and within time frame of 3 days all the responses were collected and therefore data was interpreted and conclusion drawn.

SCOPE OF THE STUDY

The present study pays attention to investigate the existing patterns of energy consumption and conservation of students, determinants of energy conservation of students and to give policy suggestions to substantially

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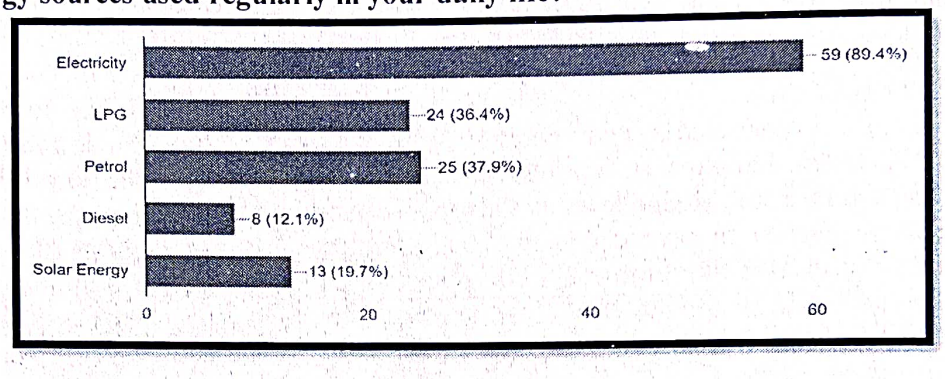
increasing energy saving behaviour. The students are considered as the backbone of the country. The products selected for the study are petrol, diesel, electricity and natural gas for domestic usage.

LIMITATION OF THE STUDY

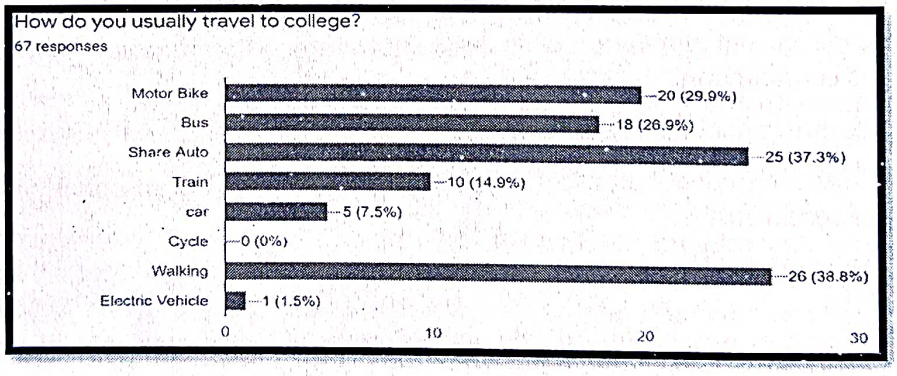
1. This study is confined only to the students in Mira- Bhayander of Thane.
2. This study is restricted only to college students in Thane district of Maharashtra.
3. The study concentrates on the energy use in household appliance, cooking and transportation. The other sectors like agriculture and industry are not included in the present study.
4. A small sample size of 67 respondents has been taken for the study.
5. Respondent gave biased answer due to some lack of information about certain terms.

DATA ANALYSIS AND INTERPRETATION

What is the energy sources used regularly in your daily life?

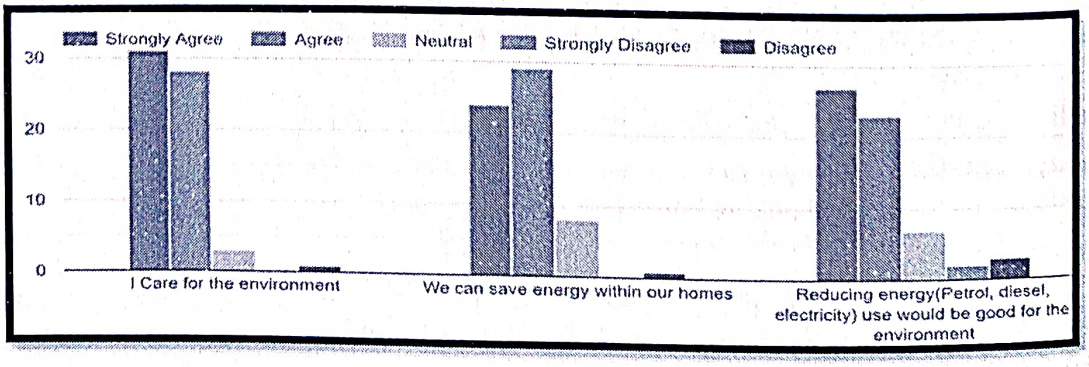


Its indicates usage of different energy sources in respondents' house. It is observed that 89.4 % of the respondents use electricity. 37.9 percentage of the respondents used petrol. 36.4 per cent of the respondents in their house use LPG cylinders, 12.1% per cent of the respondents use diesel and 13 respondents (19.7%) are using solar energy in their houses. Hence, there is a wider scope for the researcher to analyse energy conservation in the non-renewable sources.



According to above interpretation done it has been seen that 20 people out of 67 use motor bike to go to their college i.e 29.9%, 18 people travel by Bus i.e 26.9%, 25 people by share auto i.e 37.3%, 10 people by train i.e 14.9%, 5 people by car i.e 7.5%, 26 people by walking and 1 by electric vehicle i.e 38.8% and 1.5% respectively.

What is your attitude towards the following?



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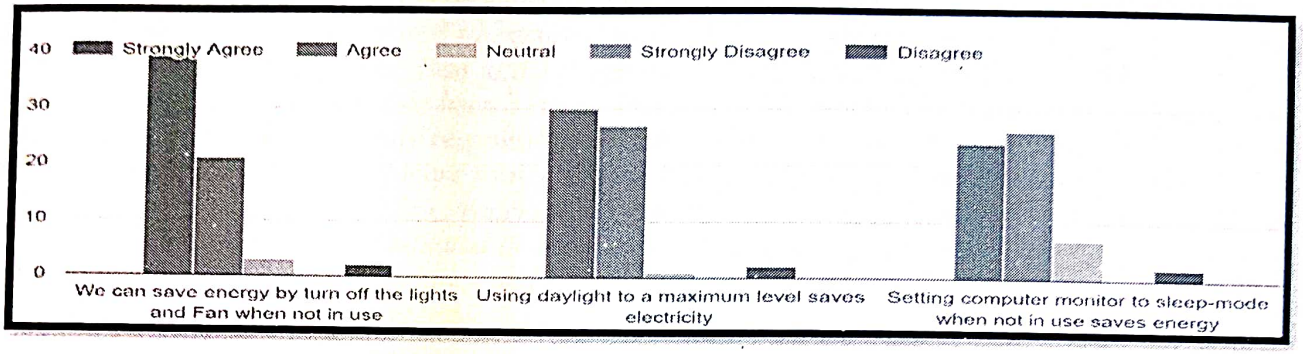
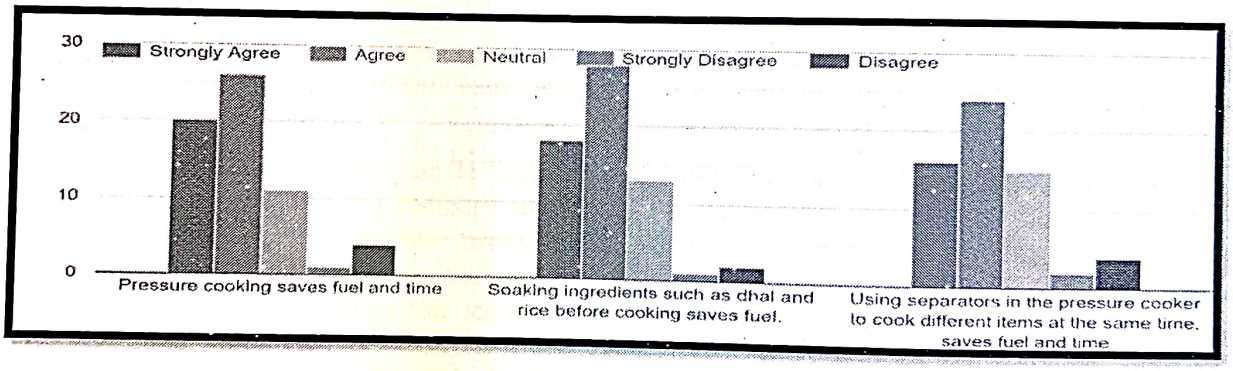
The above table represents that 31 of the respondents consider I Care for the environment as strongly agree and 28 of the respondents consider as agree. Few people were neutral and very few people disagreed. We can save energy within our homes- 25 of the respondents who strongly agreed and 30 of the respondents agreed. Few people were neutral with their thoughts and very few disagreed. Reducing Energy use would be good for the environment- Most people strongly agreed and agreed to this. Some people were neutral. Very few strongly disagree and few disagreed.

Are you aware about electricity conservation?



Above interpretation is about electricity conservation. We can save energy by turn off the lights and Fan when not in use- Almost all people strongly agreed, Some people agreed, Few people were neutral and very few disagreed .Using daylight to a maximum level saves electricity - Most of people strongly agreed and agreed. Very few were neutral and disagree with this. Setting computer monitor to sleep-mode when not in use saves energy -Some people strongly agreed and agreed. Some were neutral and very few disagreed to it.

Are you aware about LPG conservation?



Above interpretation is about LPG conservation. Pressure cooking saves fuel and time - Some people strongly agreed and most of people agreed. Some were neutral. Very few were strongly disagreed the statement and some people disagreed it. Soaking ingredients such as daal and rice before cooking saves fuel- Some people strongly agreed, most of people agreed, some were neutral whereas very few strongly disagreed and disagreed. Using separators in the pressure cooker to cook different items at the same time, saves fuel and time-Some people strongly agreed and most of people agreed to the statement. Most of them were neutral. Very few strongly disagreed and few disagreed

CONCLUSION

This study approaches an important area of energy consumption and conservation among the college students. Majority of the students have had strong perception towards energy savings behaviour. The knowledge level of the energy conservation is quite good towards savings in the usage of transportation, electricity and LPG. The attitude aspect also seems to be positive. However, the behaviour level is low when compared to knowledge and attitude. The habits of the students should be inculcated strongly to change their behaviour towards energy conservation and consumption.

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