

Assessment of Mass Awareness and Willingness for Environmental Protection

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Abstract:

All living and non living creatures are integral parts of a web called as environment. The web supports all of us and in fact is the cause of our existence. Unfortunately the environment is getting severely polluted and is threatening to the very existence of life on earth. The Inter-governmental panel on climate changes has established that the primary cause of environmental pollution is *life style*. Consequently the environmental degradation can be prevented through mass participation. The society should have awareness regarding environmental friendly life style and its significance. At the same time the society should have a willingness to adopt the lifestyle friendly to environment. The present work is a case study done for the assessment of the awareness as well as the willingness for the people to adopt environmental friendly life style.

Key Words:

Environmental degradation environmental friendly life style, mass awareness, mass willingness.

1. Introduction

The present scenario of environmental pollution is horrifying. The global warming and climatic changes have reached to the level that scientists are putting up question mark on the very existence of mankind. The life quality is being degraded and class struggles in various forms are emerging up in the various parts of the world. What is the root cause of environmental problems? In 1988, United Nations formed a panel named as the Inter-governmental panel on climatic changes (IPCC) [1], [2].

The IPCC does not carry out research at its own or monitoring work [3]. The IPCC bases its assessment on the published literature. The IPCC has arrived on two important conclusions [4], [5]:

(1) The human civilization has already entered into an era where it is facing the consequences of environmental degradation.

(2) *The life style is the sole cause of environmental degradation.*

Obviously in order to prevent the environment we need to change the life style. We need to live in harmony with the nature. It requires basically two things:

- Awareness about the environmental issues.
- Willingness to adopt an environmental friendly life style.

The present work is an attempt to assess the awareness and willingness of masses to protect the environment. The assessment is done through questionnaire. Separate questionnaires are prepared for assessment of awareness about salient environmental issues, and willingness to adopt the environmental friendly life style. It is important to note that the environmental friendly lifestyle needs sacrifice of comfort and luxury. Hence assessment of willingness is an important aspect. The questionnaire has been circulated between various sections of the society including students, and professors. Other eminent sections of the society like groups of doctors, lawyers, businessmen, industrialists etc are also surveyed. The sample questionnaires are given herein. The response given by the various sections have been analyzed and are presented here. The questionnaires do not record the name of the respondent.

2. The questionnaire to assess the awareness:

Questionnaire

GENERAL: please give general information about yourself.

Your age:

Sex:

Your present employment (if you are an employee):

You study at (level, course)(if you are an student):

Awareness assessment: please give your genuine response.

1. Are you aware that global warming is causing large scale land submergence?
2. Are you aware that the global climatic changes are due to air pollution?
3. Are you aware that the climatic changes have a severe impact on crop yield leading to a great famine?

4. Are you aware that the modern life style is responsible for raising the level of air pollution?
5. Are you aware that automobiles are the principal cause of air pollution in urban areas? (Y/N)
6. Are you aware that air conditioners are significantly contributing to air pollution?
7. Are you aware that the burning of rubber tyres and plastic generates extremely carcinogenic emissions?
8. Are you aware that the timely servicing and maintenance of vehicles reduce their pollution emissions?
9. Are you aware that PUC (pollution under control certification) is mandatory for vehicles?
10. Are you aware that public transport system is better than private ones from pollution control point of view?
11. Are you aware that the synthetic cleansers cause air pollution?
12. Do you know that the world environment day is celebrated on June 5TH? (Y/N)

3. The questionnaire to assess the willingness

Questionnaire

GENERAL: please give general information about yourself.

Your age:

Sex:

Your present employment (if you are an employee):

You study at (level, course)(if you are an student):

Willingness assessment:

1. Are you ready to adopt a simple life style over a luxurious one for the sake of environmental protection?
2. Are you ready to use bicycle in your daily life to control air pollution?
3. Are you ready to minimize the use of air conditioners in your daily life?
4. Are you ready to plant some trees in your premises and to take care of them?
5. Are you ready to get the servicing of your vehicles done as per the prescribed schedule? (Would you like to spend your time and money for this?)
6. Are you ready to use public transport system in place of personal vehicle?
7. Are you ready to minimize the use of polythene bags in your daily life?
8. Are you ready to minimize the use of synthetic cleansers in your daily life?

9. Are you ready to save some electricity for the sake of environmental protection?

4. The respondent groups:

The present study has focused on selected sections of society. It has included engineering students of various colleges of Jalgaon city like- SSBT's College of Engineering and Technology, Bambhori, Jalgaon, MS (150 students of various branches are selected randomly),

Government College of Engineering, Jalgaon, MS (100 students), and Godavari College of Engineering, Jalgaon, MS (75 students). The management institutes selected are - SSBT's College of Engineering and Technology, Bambhori, Jalgaon, MS (50 students are selected randomly), Indian Management Research Institute, Jalgaon, MS (50 students).

The study has also included academically elite group like professors of various engineering and management colleges are also surveyed. The study has also included mix groups of lawyers, doctors, industrialists etc. For this part of the study, the survey was done in following organizations -Rotary clubs of Jalgaon (90 respondents) and Bharat Vikas Parishad, Jalgaon (55 respondents)

5. Response analysis of awareness study:

The response is analyzed in terms of response of engineering students, management students, professors, engineering professionals, industrialists, doctors and lawyers. The responses given by few other professionals in the response group of Rotary Club and Bharat Vikas Parishad are not analyzed due to very small sample size.

Are you aware that global warming is causing large scale land submergence?

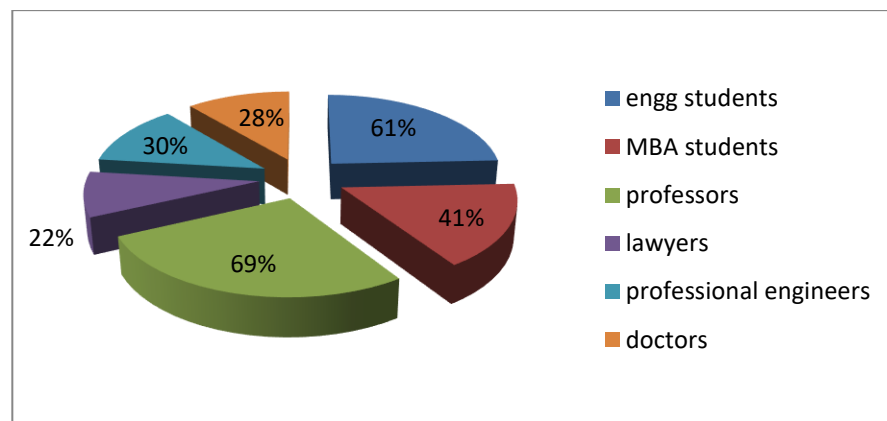


Fig 1: Awareness of respondents regarding global warming and land submergence.

Are you aware that the global climatic changes are due to air pollution?

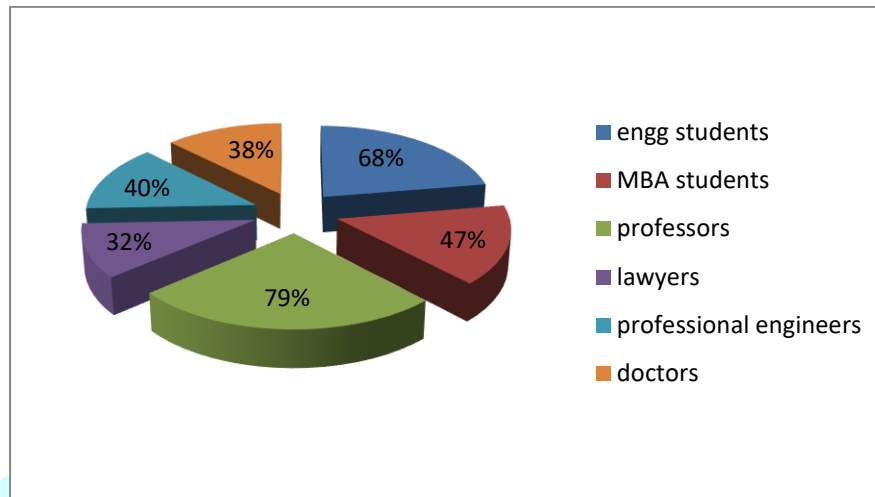


Fig 2: Awareness of respondents regarding Climatic Changes.

Are you aware that the climatic changes have a severe impact on crop yield leading to a great famine?

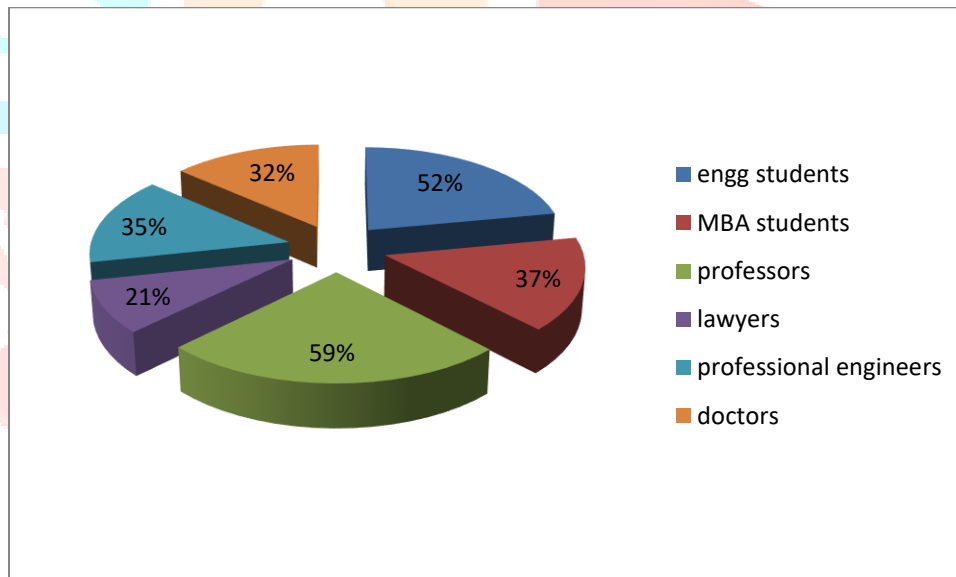


Fig 3: Awareness of respondents regarding Climatic Changes and effect on crop yield.

Are you aware that the modern life style is responsible for raising the level of air pollution?

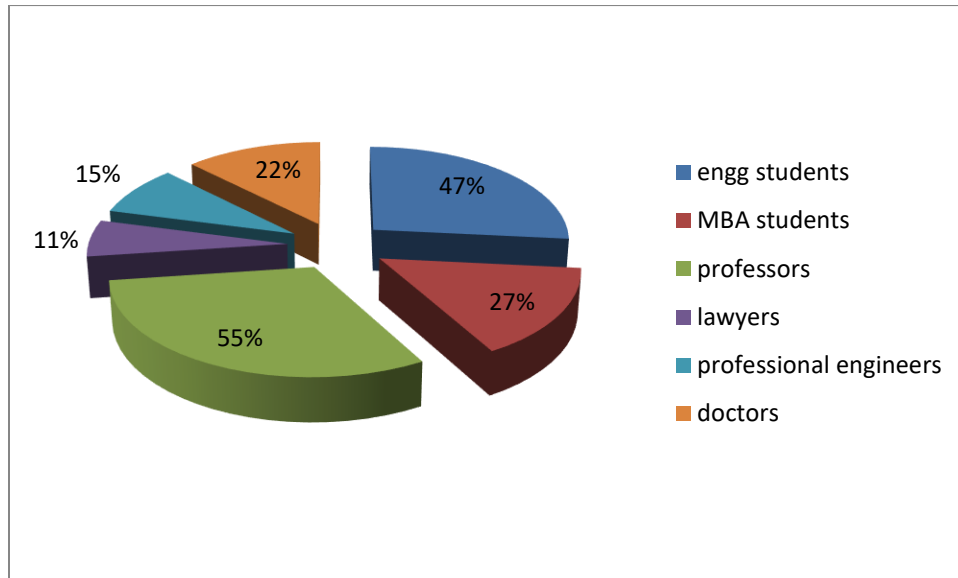


Fig 4: Awareness of respondents regarding impact of life style on environment.

Are you aware that automobiles are the principal cause of air pollution in urban areas?

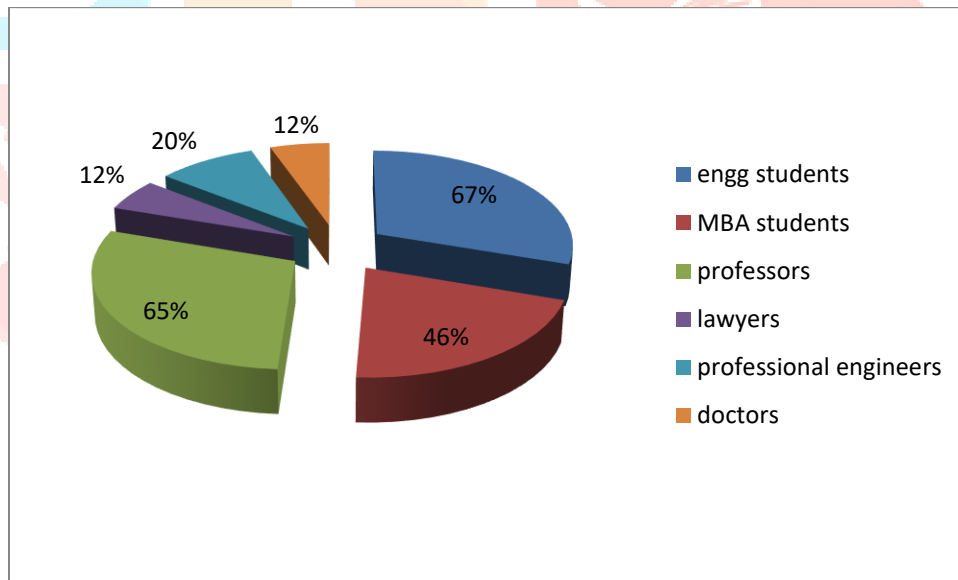


Fig 5: Awareness of respondents regarding automobile air pollution.

Are you aware that air conditioners are significantly contributing to air pollution?

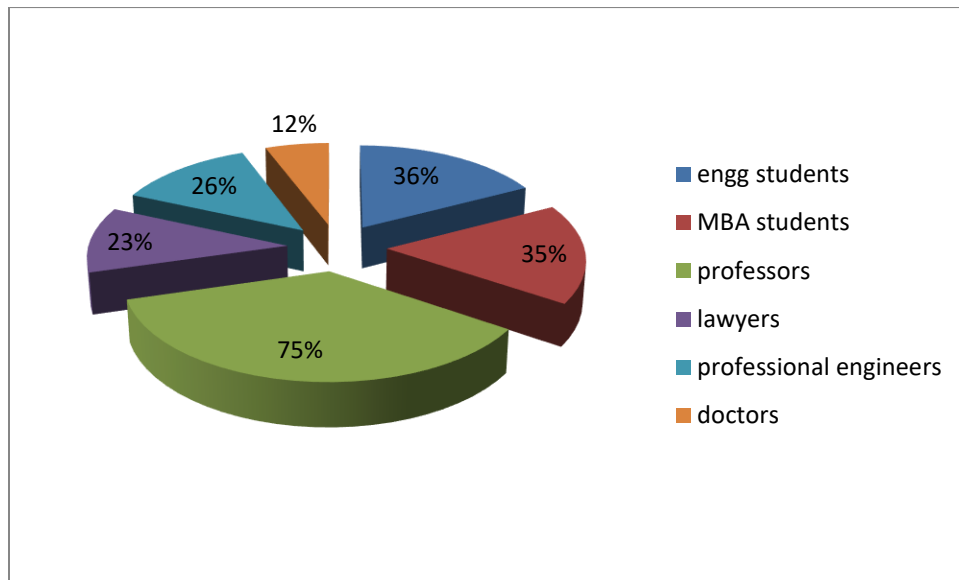


Fig 6: Awareness of respondents regarding air conditioner air pollution.

Are you aware that the burning of rubber tyres and plastic generates extremely carcinogenic emissions?

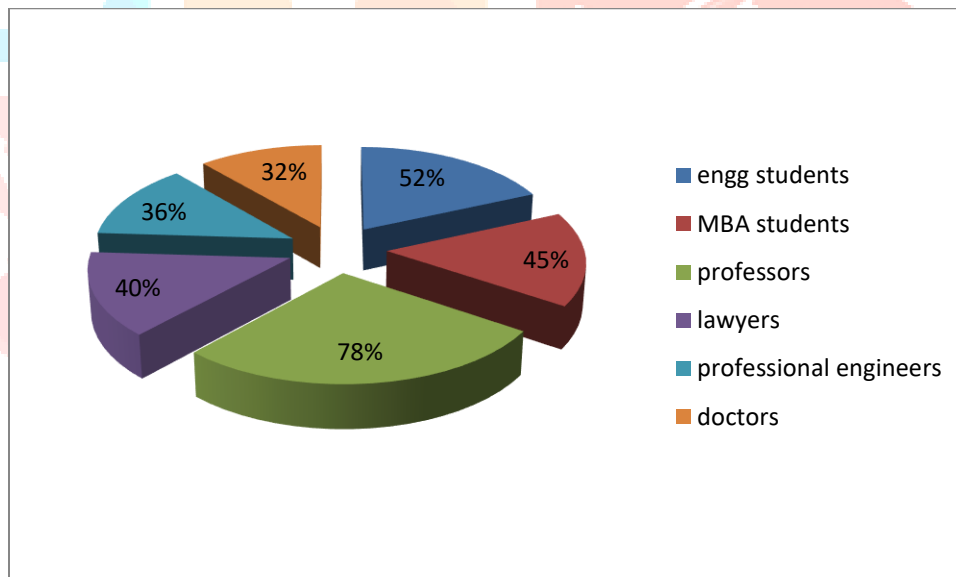


Fig 7: Awareness of respondents regarding air pollution due to rubber tyre burning.

Are you aware that the timely servicing and maintenance of vehicles reduce their pollution emissions?

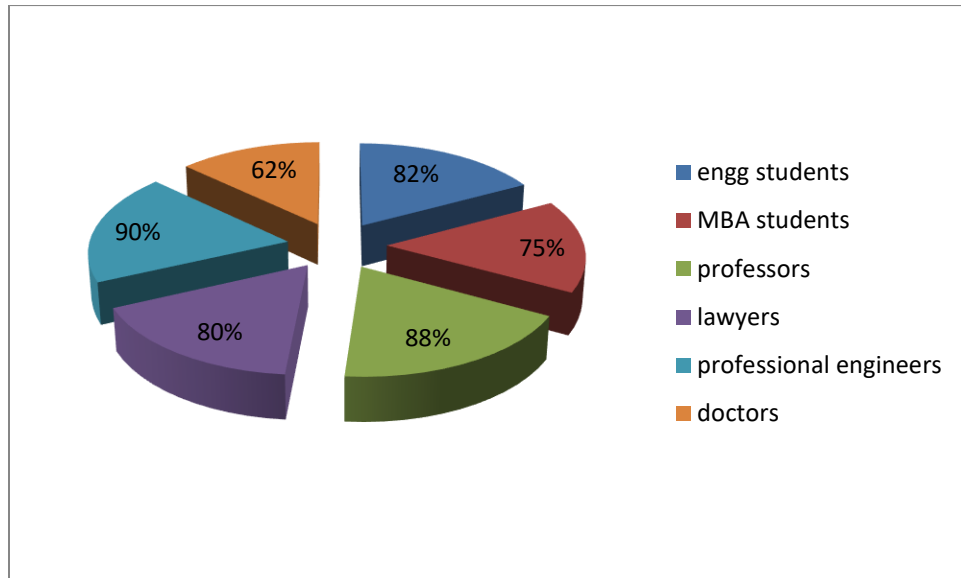


Fig 8: Awareness of respondents regarding air pollution maintenance of vehicles.

Are you aware that PUC (pollution under control certification) is mandatory for vehicles?

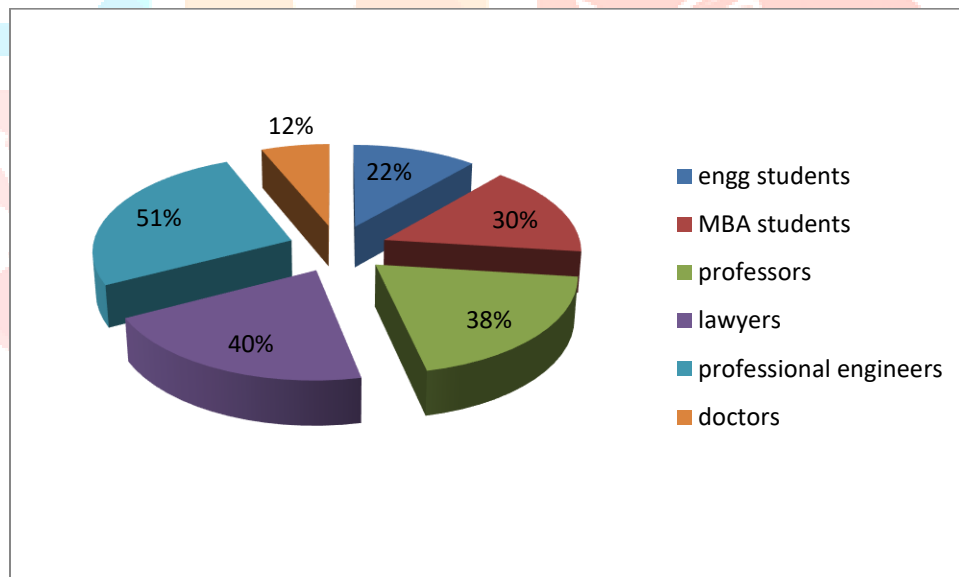


Fig 7.9: Awareness of respondents regarding PUC.

Are you aware that public transport system is better than private ones from pollution control point of view?

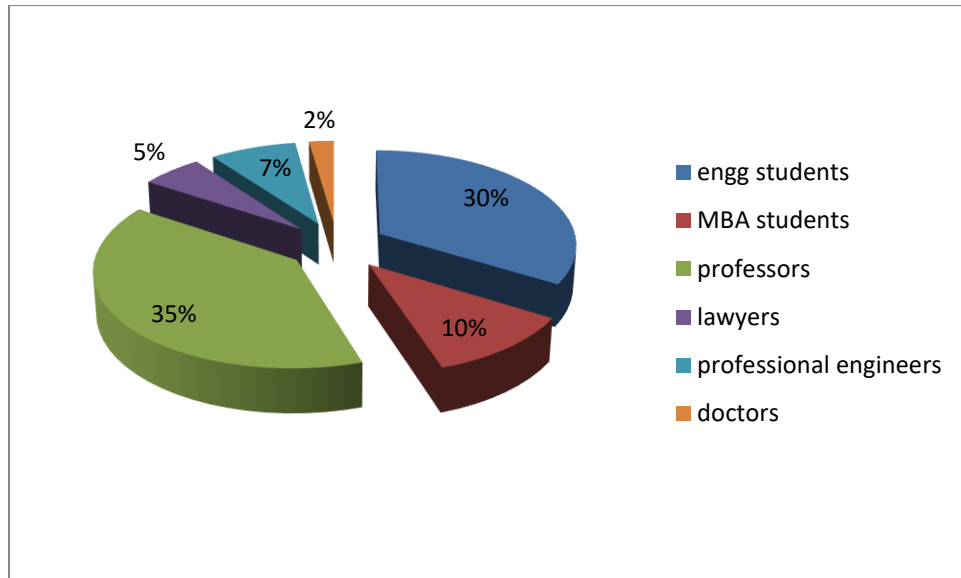


Fig 7.10: Awareness of respondents regarding public transport system.

Are you aware that the synthetic cleansers cause air pollution?

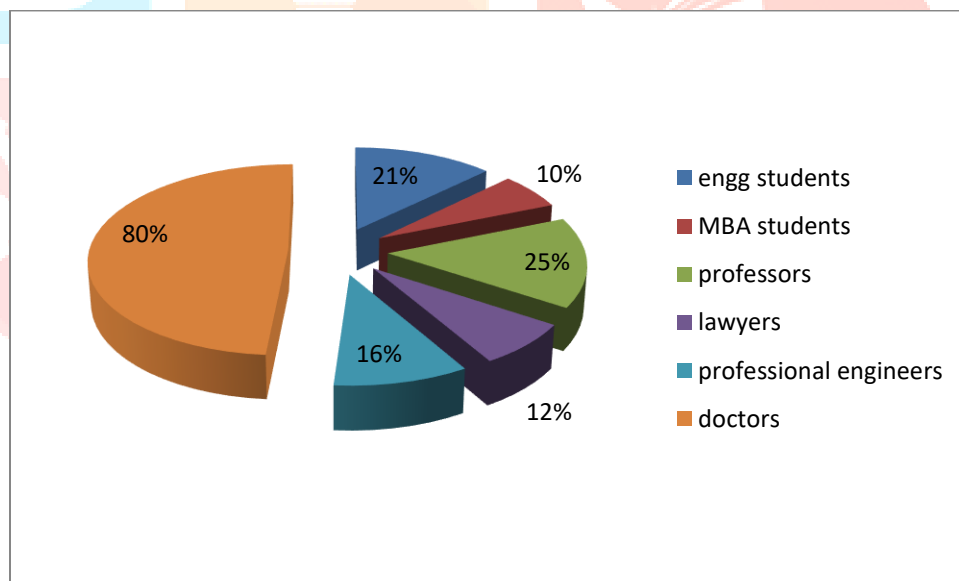


Fig 11: Awareness of respondents regarding synthetic cleansers.

Do you know that the world environment day is celebrated on June 5TH?

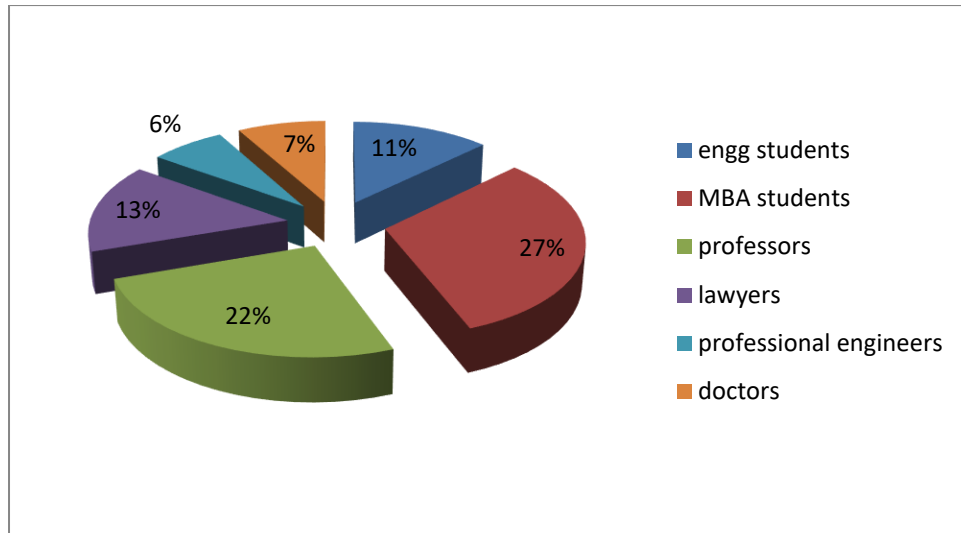


Fig 12: Awareness of respondents regarding World Environmental Day.

6. Response analysis of willingness to adopt environmentally friendly life style:

Just like the case of response analyzed of awareness survey, here also the response has been analyzed in terms of response of engineering students, management students, professors, engineering professionals, industrialists, doctors and lawyers. The responses given by few other respondents are dropped out from analysis.

Are you ready to adopt a simple life style over a luxurious one for the sake of environmental protection?

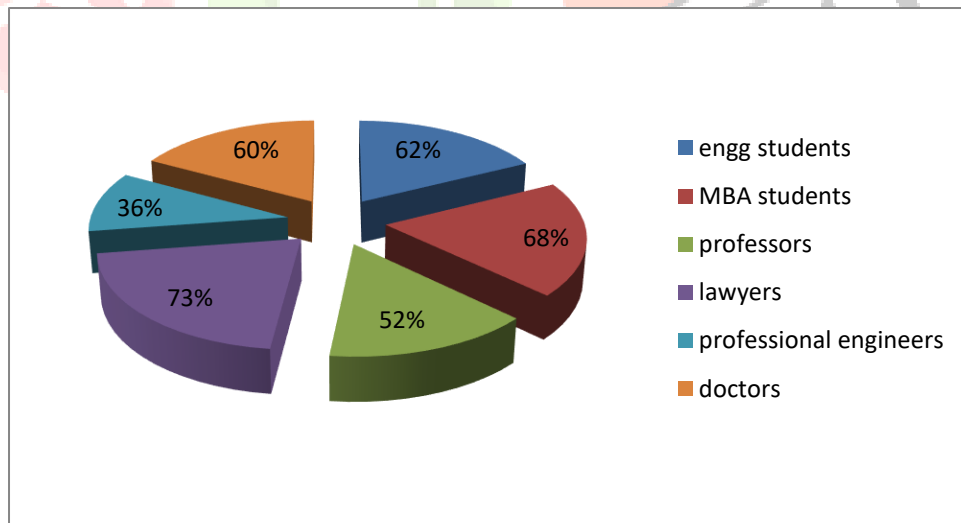


Fig 7.13: Willingness to adopt environmental friendly life style.

Are you ready to use bicycle in your daily life to control air pollution?

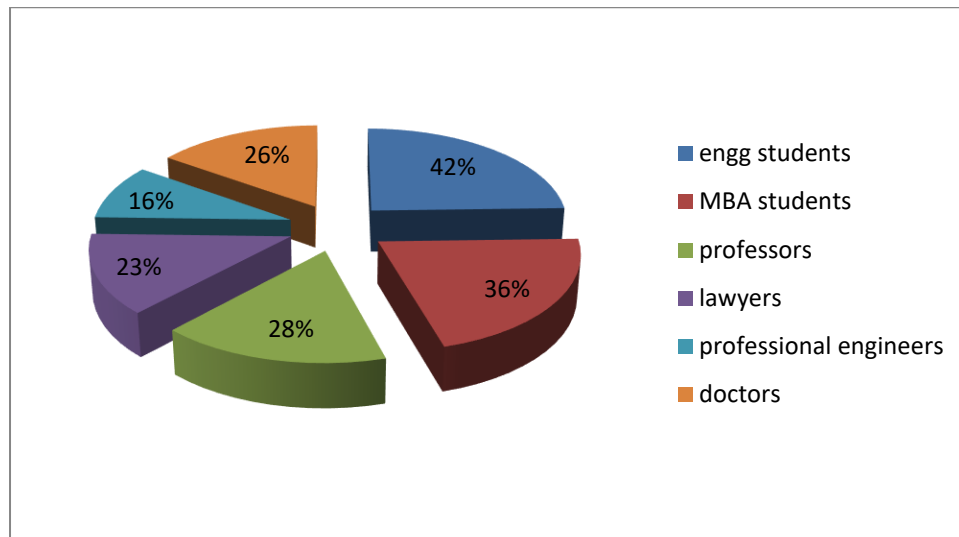


Fig 14: Willingness to adopt bicycle.

Are you ready to minimize the use of air conditioners in your daily life?

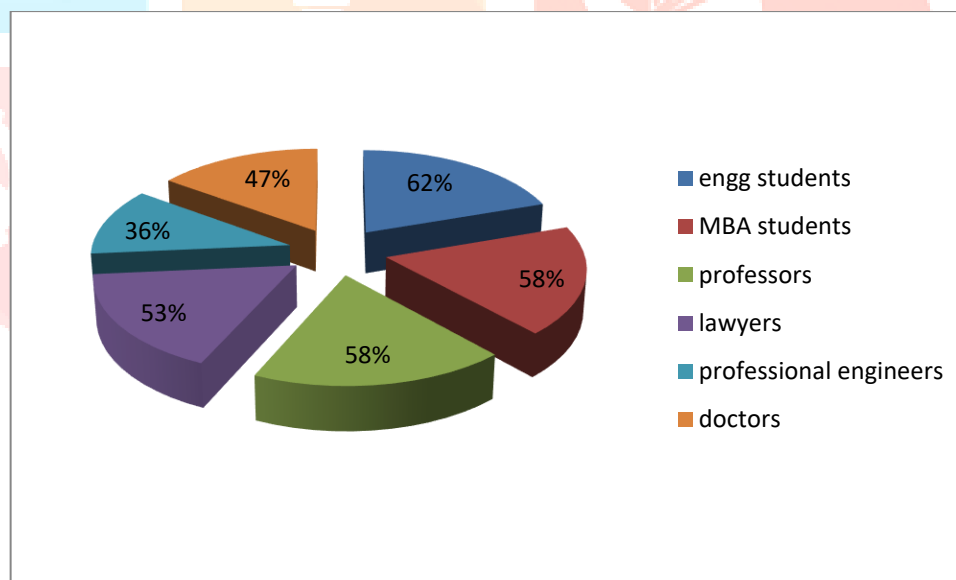


Fig 15: Willingness to avoid air conditioners.

Are you ready to plant some trees in your premises and to take care of them?

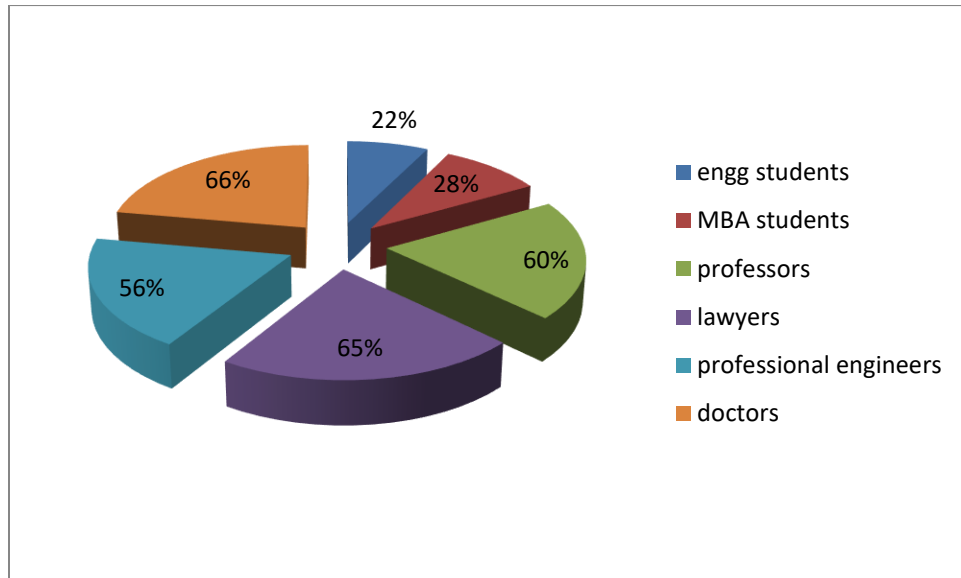


Fig 16: Willingness to do plantation.

Are you ready to get the servicing of your vehicles done as per the prescribed schedule? (Would you like to spend your time and money for this?)

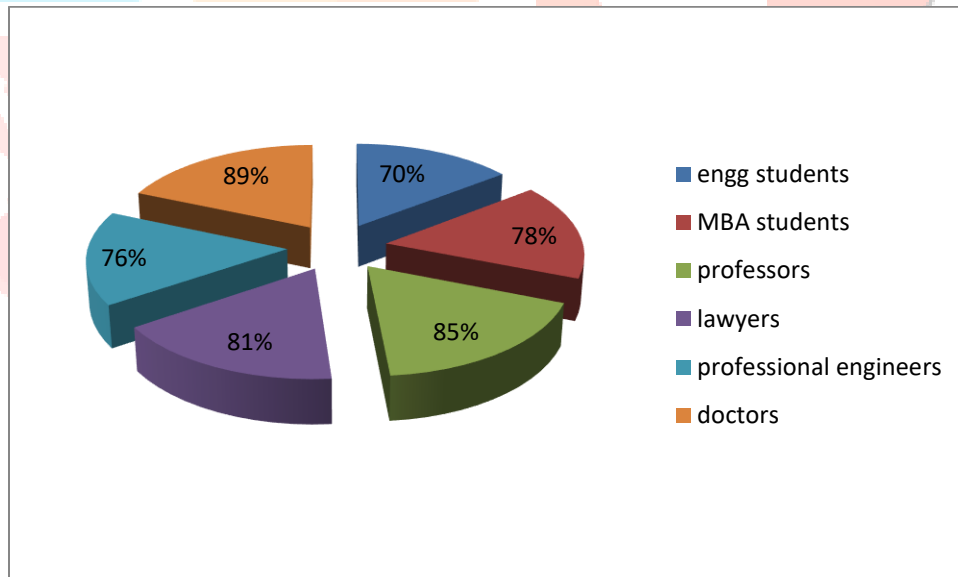


Fig 17: Willingness for vehicle maintenance.

Are you ready to minimize the use of polythene bags in your daily life?

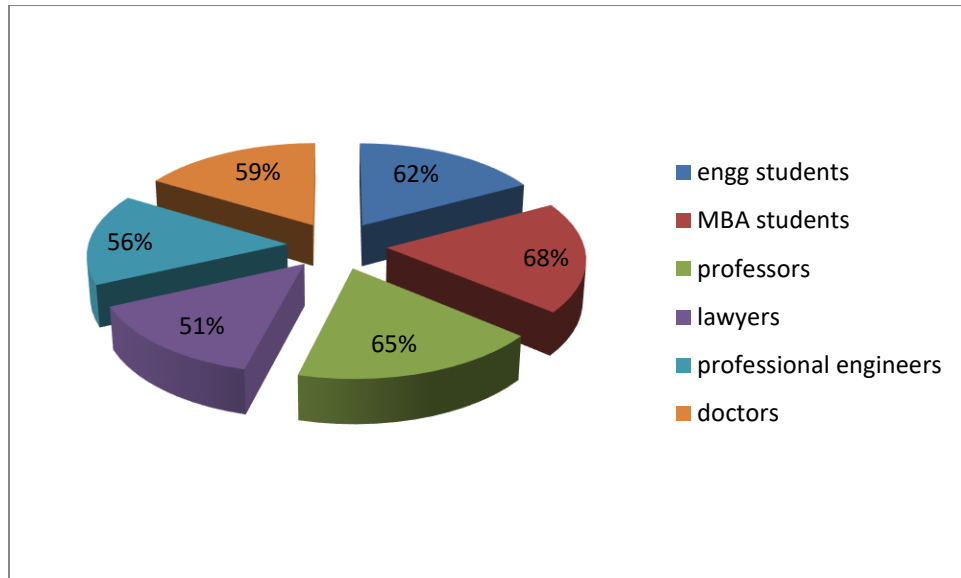


Fig 18: Willingness to avoid polythene bags.

Are you ready to minimize the use of synthetic cleansers in your daily life?

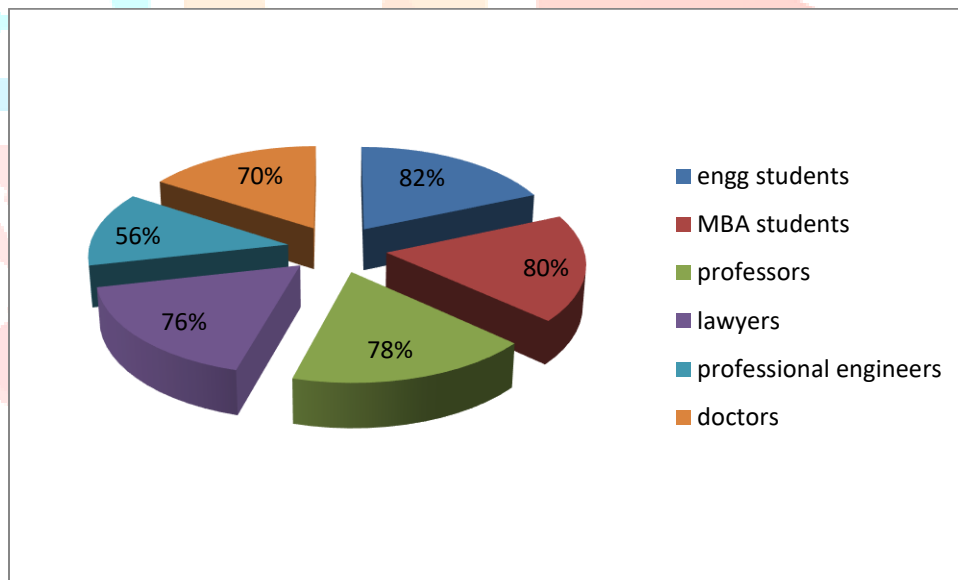


Fig 19: Willingness to avoid synthetic cleansers.

Are you ready to save some electricity for the sake of environmental protection?

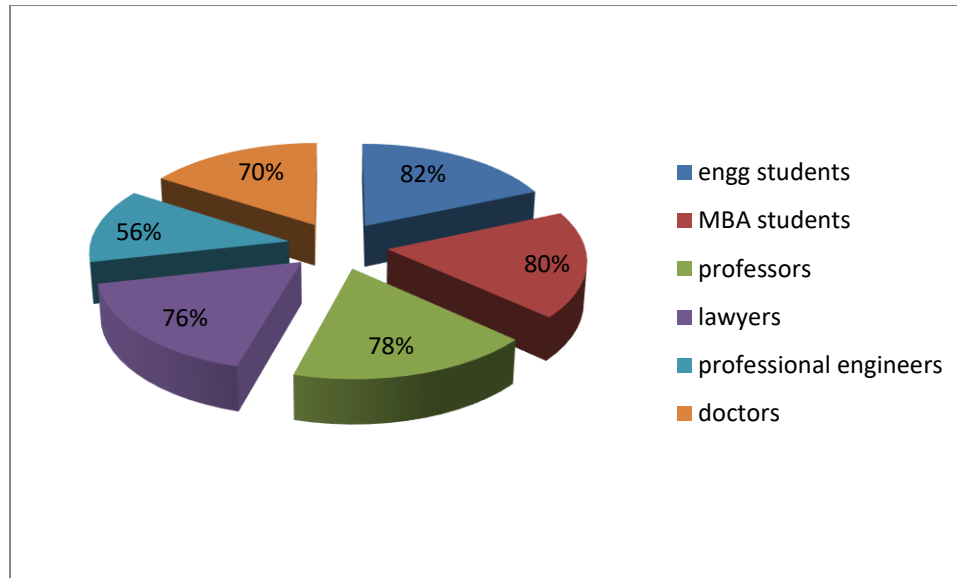


Fig 20: Willingness to avoid synthetic cleansers.

7. Interpretation of awareness analysis:

The results of questionnaire analysis are depicted in figures from 1 to 12. It can be seen that regarding global warming and land submergence issues, the awareness of engineering students and professors is quite high. However it is very low for lawyers, doctors etc. Regarding climatic changes also the awareness of engineering students and professors is higher than that of others. The impact of life style on environment is a very significant issue as emphasized by the IPCC also. However the awareness in this regard is not very high. In fact it is an issue of concern. Regarding automobile air pollution also the awareness is quite good, but it is low for air conditioners. Regarding burning of plastics/rubbers etc the awareness is relatively good and appreciable. The effect of servicing and maintenance on exhaust emission of vehicles is well known to almost all sections of survey study. However the awareness about PUC certification is very poor. The awareness about public transport system and synthetic cleansers is relatively low; however doctors are quite well aware about the synthetic cleansers and their impact on environment.

In general it can be concluded that the awareness about burning environmental issues is good amongst engineering students and professors. However it is low in other sections of the society. Hence it is desirable to organize mass awareness initiatives to enhance awareness about environmental issues.

8. Conclusions

The willingness to adopt environmental friendly life style to save the environment is significantly high in all sections of the society. It is really appreciable. The willingness levels with reference to the issues surveyed through questionnaire are depicted through fig no.13 to 20. It is really appreciable that people are willing to avoid luxury from their lives to save the environment. The willingness to adopt bicycle is relatively less. It may be due to practical reasons. In fact in order to make bicycles popular, not only awareness but infrastructural facilities are also required to be created specifically for that. The willingness to avoid use of air conditioners is appreciable good. The willingness to do plantation is good in professors, lawyers and professionals. However it is low in students. It is obvious. Students are stable in their lives, while plantation requires regular care which can be done better by those who are stable in their positions. It is also noticeable that all sections of survey study are by a large willing to avoid use of polythene bags and synthetic cleansers.

Hence it can be concluded that the awareness about environment related significant issues is at average level in the society. However the willingness of the society to adopt environmental friendly life style is significantly high. As discussed already, Intergovernmental Panel on Climatic Changes has established conclusively it is the life style that is responsible for all kind of environmental damages and only by change in life style the environment can be saved. The present study has revealed encouraging results in this context. The awareness level is average, yet the willingness to adopt environmentally friendly life style is very high. If the mass media and educational system integrates awareness campaign and motivational programs pertaining to the environmental saving, greater success in this regard can be definitely achieved.

1. (www.ipcc.ch)
2. Alavian V Qaddumi H M, Dickson E, Diez S M, Danilenko A V, Hirji R F, Puz G, Pizarro C, Jacobsen M and lankespoor B, Water and Climate Change: Understanding the Risks and Making Climate - Smart Investment Decisions, Washington DC: World Bank Report, 2009.
3. Avdeev O and Korchagin P, Organization and implementation of contaminated waste neutralization in the Ukrain – National Report II, Central European Journal of public health, 2 (Suppl) (1994): 51 – 52.
4. Joel B. Smith, Stephen H. Schneider, Michael Oppenheimer, Gary W. Yohe, William Hare, Michael D. Mastrandrea, Anand Patwardhan, Ian Burton, Jan Corfee-Morlot, Chris H. D. Magadza, Assessing dangerous climate change through an update of the Intergovernmental Panel on Climate Change (IPCC): reasons for concern, Proceedings of the National Academy of Science of the United States of America, 106 (11), 4133–4137, doi: 10.1073/pnas.0812355106.

5. Rajendra K. Pachaurim, and Leo Meyer, Climate Change 2014 Synthesis Report, available on https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf.

