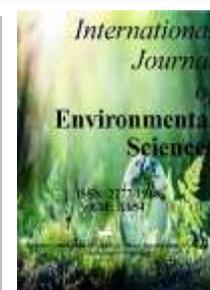


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Full Length Research Paper

A Case Study of Acceptance of Shift towards Green Environment in India

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ARTICLE INFORMATION

ABSTRACT

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Recycle, Green-environment, Shift, habits

Green environment is one of the most spoken topics in the last decade. Harmful materials like High Density Polyethylene (HDPE), Low Density Polyethylene (LDPE), Polypropylene (PP), etc are released into the environment every day in bulk and the recycle programmes are not able to keep up with the ever-increasing waste generated. These materials when mixed with marine life or buried in ground may result in negative impact for the animals and plants. Multiple studies have showcased the harmful reactions to not only the marine life or nature, but also to humans. As we often see that green products are costlier than the normal ones. This acceptance depends on the purchasing power too. We usually see western countries are more capable and willing to purchase products which are beneficial for the environment. Developing countries try to innovate the products but the people focus more on cost than its benefits. Yet, the modern generation is getting woke and willing to bring this change. From Ridhima Pandey to Greta Thunberg, young activists strive for the change that the world deserves and speak out loud which even many wise fails to. This study aims to determine the acceptance of change from using the cheap materials products to environment friendly products to understand the graveness of situation. In this context, green environment means recyclable objects which can be biodegradable and environment friendly.

Introduction

In recent years, there has been a drastic change in the lifestyle of people; mixture of positive and negative. Industrial-scale production began in the 1950s and has been gathering pace ever since. Two years ago, the total amount of plastic produced till date was 8.3 billion tons. Of that, 6.3 billion had turned into plastic waste. Only 9 percent of that waste was recycled, and 12 percent was incinerated. A whopping 79 percent ended up in landfills or the environment (R. Geyer *et al*). The plastic now amounts to some 400 million tonnes per year, yet only an estimated 12% of the plastics produced have been incinerated and only an estimated 9% have been recycled (UNEP *et al*). Manufacturers of renewable items are now focusing to create as many new environmentally friendly products as possible in the most efficient way. Creating new products which are less harmful to the environment takes a lot of effort and resources which makes it an expensive choice as compared to its counterpart i.e., plastics. Plastic seems to be a reasonable choice when used repeatedly and not thrown away after one use. Single use plastics seem to be a major source of pollution since they serve no purpose after being used once. The SARS COVID-19 pandemic witnessed a surplus of single use mask and PPE kits being produced and discarded as medical waste. The acknowledgement of the fact that plastic is ruining the environment is eo ipso a big milestone in a world with multiple ideologies about the same thing. Creating an efficient system of production should also be taken care of and not only the resultant product. For example, the current scenario of electric vehicles in India is more polluting than helping. It creates more pollution to produce an electric vehicle than producing a petrol/diesel vehicle.

The charging stations being powered by coal also contributes to a major source of pollution. The objectives of the research are as follows:

To understand the acceptance of shift towards green environment in world; To know the major hindrances towards the shift of green world; To know people's perspective towards the shift and how likely are they to change their lifestyle for it; To

decipher whether various steps taken by government/organisations for green environment are reaching to people or not; To understand the graveness of the problem in current situations.

Materials and Methods

Study Area

The study will be conducted in India and specifically in the Mumbai metropolitan area consisting of Mumbai (Bombay) and its satellite towns in the northern Konkan division, of the Maharashtra state in western India. The region has an area of 6,355 square kilometres (2,454 sq. mi) and with a population of over 26 million it is among the most populous metropolitan areas in the world. Since Mumbai is one of the most populous cities in India, this region was selected as the best area to conduct our study in. This study was conducted for over one month.

Sampling Size

The responses were collected from several areas in Mumbai and from other areas in India where the population with mixed income groups were present.

Sampling Method

For this study, we used simple random sampling method. We shared a questionnaire in areas surrounding the Mumbai metropolitan area and we received 92 responses for the same. From the received responses, we prepared charts and pie diagrams to interpret the data further. We also used the below-mentioned methods:

1. Pre-field method
2. Field method
3. Post-field method

Pre-field method

This includes the collection of secondary information on the approached from different sources. Numerous publications from the library were recommended in order to gain a thorough understanding of the subject field. Additionally, books, documents, journal papers, newspaper articles, websites, etc were used. For secondary data, some recent internet articles from other publications were also consulted.

Field method

Both qualitative and quantitative data collection techniques are used when doing field observations. Data from the 15–40 age range was gathered using the questionnaire approach. 92 people made up the sample size. Simple random sampling techniques were employed. Primary data were gathered using questionnaires, observations, and group discussion techniques. This study uses a descriptive research design. Mumbai is where the responders are from.

Post-field method

The primary and secondary data will be processed, assimilated, and analyzed using a variety of techniques. Data analysis was done using statistical methods. An appropriate bibliography is created to list the sources consulted. The research has a descriptive design. The data collected both primary and secondary, will be processed, assimilated, and analysed with the help of multiple methods. Statistical tools were used for analyzing the data. A suitable bibliography is prepared to show the references used. The research design is descriptive in nature. This research paper is based on a survey taken through a questionnaire. There are 92 responses. Data from various magazines, news and books are referred.

Results

Age Group: The questionnaire was filled by 74.4% people in the age group of 19-25 and 16.5% people in the age group of 15-18. Below is the graphical representation and the results of the study conducted.

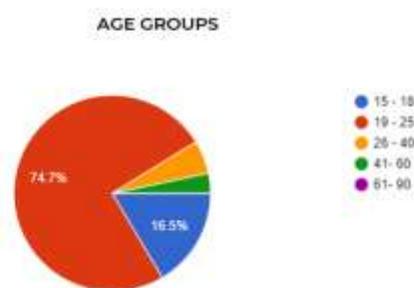


Fig 1: Age groups of respondents. It is concentrated towards a younger population.

Colour	Age groups	Respondents	% Distribution
Blue	15 - 18	15	74.7%
Red	19 - 25	69	16.5%
Yellow	26 - 40	5	5.4%
Green	41 - 60	3	3.3%
Purple	61 - 90	0	0%

Support for Green Environment: Majority of our respondents responded they support the movement of green environment. This shall include the fact that they are aware of the green environment programme.

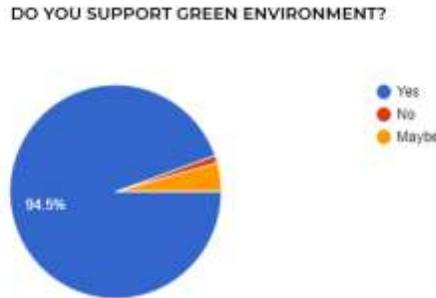


Fig 2: Majority of the respondents supporting green environment.

Colour	Yes or no	Respondents	% Distribution
Blue	Yes	87	94.6%
Red	No	1	1.1%
Yellow	Maybe	4	4.3%

Which green products did the respondents know about: Majority of the respondents (96.7%) knew about cloth bags which are famously available at the local stores and fashion outlets for a small price. Seconded by LED Bulbs, 78% respondents were aware about them. The shift to the LED bulbs from CFL bulbs can be the reason behind it and the savings in electricity plays a major role in the popularity.

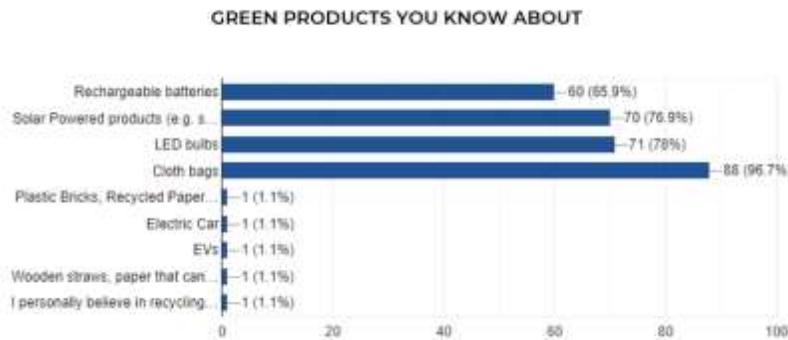


Fig 3: Which green products did the respondents know about?

Colour	Yes or no	Respondents	% Distribution
Blue	Yes	33	34.1%
Red	No	59	65.9%

Are green products low in performance: 65.9% of the respondents have the opinion that green products do not have any difference in performance of product as compared to the non-green alternatives. Taking an example mentioned in clause 6.3, LED bulbs are not only cheaper to consume but also high performance and lasts longer than the CFL counterpart. Whereas current electric vehicles are bound by less distance and speed but are also much cheaper than the petrol/diesel counterparts.

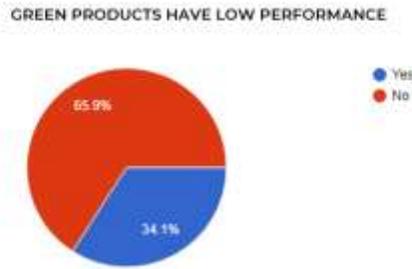
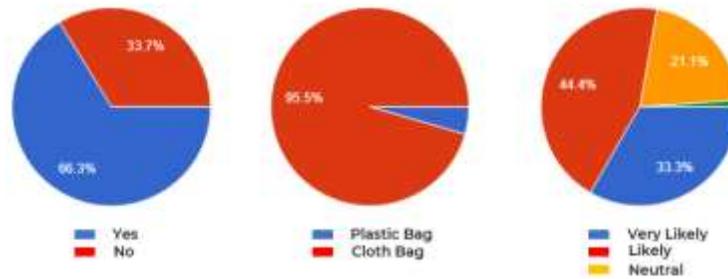


Fig 4: A pie chart on the respondents’ opinions on whether the environmentally friendly products have low performance.

Colour	Yes or no	Respondents	% Distribution
Blue	Yes	33	34.1%
Red	No	59	65.9%



5 Would you buy expensive products being green or not: Majority of respondents (66.3%) responded positively that they will purchase a product which is environmentally friendly if it meant that they were environment friendly.

6 Cloth bags versus plastic bags: A clear majority of 95.5% chose that they would prefer buying a cloth bag which are 8 Rupees per unit and lasts longer as compared to plastic bags which are much cheaper but can only be used few times. The washable factor of the cloth bags is a major contributor to the result.

7 Would you change your lifestyle for the environment: 33.3% are very flexible with respect to the lifestyle changes which comes after buying environmentally friendly products. That includes giving up their favourite products for the alternative of nature friendly product.

Fig 5: A pie chart asking whether consumers would buy green products if they were expensive.

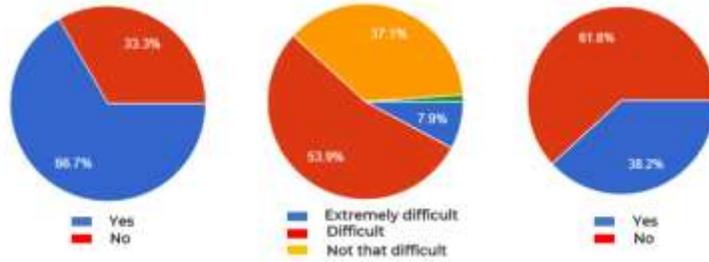
Colour	Yes or no	Respondents	% Distribution
Blue	Yes	63	66.3%
Red	No	29	33.7%

Fig 6: A comparison of preferences of plastic bags and cloth bags.

Colour	Opinion	Respondents	% Distribution
Blue	Plastic Bag	6	4.4%
Red	Cloth Bag	86	95.5%

Fig 7: Whether the respondents would change their lifestyles to adopt environmentally friendly products.

Colour	Opinion	Respondents	% Distribution
Blue	Very likely	30	33.3%
Red	Likely	41	44.4%
Yellow	Neutral	19	21.1%
Green	Unlikely	1	1.1%



8 Can capitalism and environmentalism co-exist: An indeed controversial question; 66.7% respondents feel like they both can co-exist, and companies can still make profits with environmentally friendly products.

9 Difficulty in shifting to green environment: Majority of respondents (53.9%) think that shifting to green environment is rather difficult because it includes compromising in some important features provided by non-green products, but it benefits the environment in the long run.

10 Have you ever been a part of a sustainability programme: There is almost an equal contribution to Yes (38.2%) and No (61.8%) where the majority has not been a part of sustainability programme. It includes programmes like school sponsored industrial visits, visits to local khadi villages, etc.

Fig 8: Can capitalism and environmentalism coexist together?

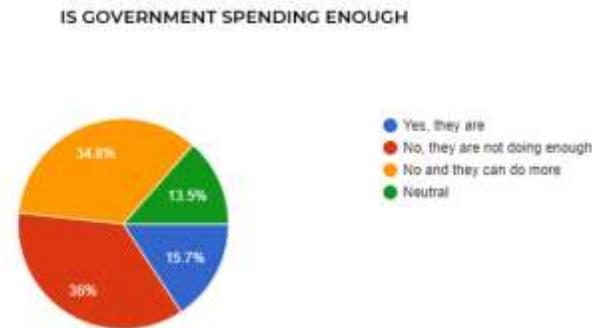
Colour	Yes or no	Respondents	% Distribution
Blue	Yes	61	66.7%
Red	No	31	33.3%

Fig 9: Do the respondents find it difficult to shift to green environment?

Colour	Opinion	Respondents	% Distribution
Blue	Extremely difficult	7	7.8%
Red	Difficult	49	54.4%
Yellow	Not that difficult	33	36.7%
Green	Very easy	1	1.1%

Fig 10: Majority of the respondents were never a part of any sustainability programmes.

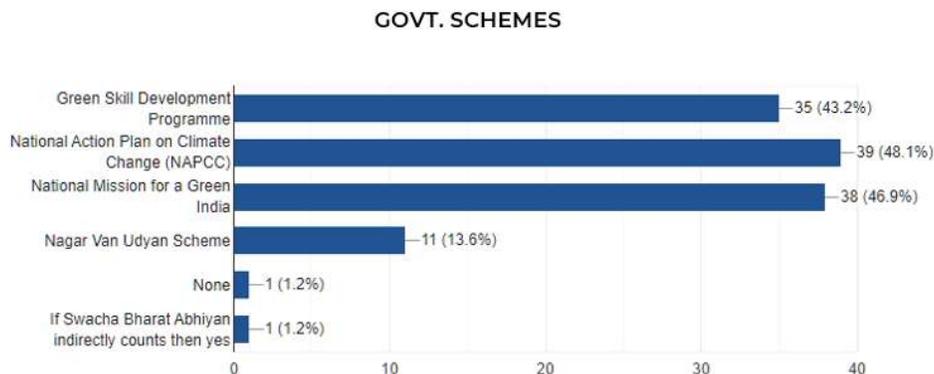
Colour	Yes or no	Respondents	% Distribution
Blue	Yes	35	38.9%
Red	No	55	61.1%



Is the Government spending enough behind green environment: There is a mixed response from all the respondents about this question, but a majority of responses point out towards the fact that Govt. of India is not doing enough for green environment. They could do more towards the cause but are lacking in proper planning and execution. They should appoint a third-party consultancy firm for helping them towards this cause and they can introduce more schemes related to this.

Fig 11: What does the general public think about the government’s expenditure on green environment?

Colour	Opinion	Respondents	% Distribution
Blue	Yes, they are	14	15.6%
Red	No, not doing enough	33	36.7%
Yellow	No, they can do more	31	34.4%
Green	Neutral	12	13.3%



Government Schemes and their know-abouts: There are three schemes, ‘Green skill development programme’, ‘National action plan on climate change’ and ‘National mission for a green India’ which were voted the most. Frequent advertisements may help with the propagation of such schemes and should be targeted towards the youth because of their awareness.

Fig 12: A list of government schemes dedicated to the green environment.

Discussion

The average buyer in India is not hesitant to spend extra money if it means that the product is environmentally friendly. Considering the fact that majority of the respondents are in the age group of 19-25, they come in the income group of zero to 1 Lakh Rupees per annum so, at their individual level, they may not be able to make huge change, but they can change the way they consume and the way they use certain products. They can begin using cloth bags instead of plastic bags and invest more in rechargeable batteries – they are expensive but the carbon footprint they leave behind is very low as compared to their counterparts i.e., use and throw batteries. In the below chart, we see that majority of respondents are not aware of about the green environment initiatives around them. They are indeed aware about the concept of green environment and the damage they make at personal level but they lack the awareness about the damage overall when everyone is ignorant about it.

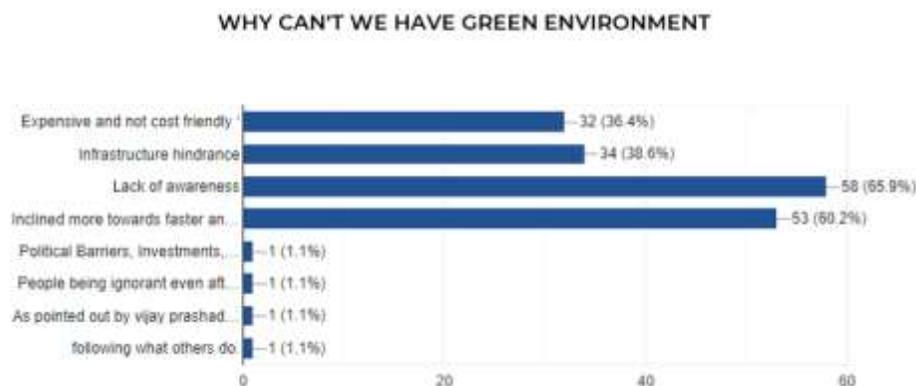


Fig. 13: Challenges for green environment in India.

Whereas the majority (65.9%) selected that the awareness was a major issue, they also pointed out that they would rather use products which make their lives easier and faster than use green products which is something that should be worked upon by the relevant authorities.

Strategies to be followed for the propagation of the idea of green environment:

The Govt. of India should play a major role in introduction of green environment in the daily lives of people. New subsidies for companies producing cloth bags and eco friendly solutions should be brought up and encouraged further. Private sector should not treat CSR as a compliance but more like a duty to be executed for the betterment of society. Better treatment of

the industrial waste should also be taken care of. Subsidies in electric vehicles should be continued for 5-6 years – it will be a burden for the Government but in the long run, it will definitely be counted.

Conclusion

According to the survey and the analysis, we see that majority of young adults wish to see the changes to protect the environment and shift their consumption pattern with due aid. We observe that the generation is moving in the direction towards the betterment of environment over merely satisfying materialistic needs. People are willing to spend more if the product helps the environment and functions at an equal efficiency. Few have adapted the changes even today if there are greener options available. People wish the support from the government and expect the government too to focus towards this aspect. Young minds believe the with proper planning and framework, we still can change the scenario. This research paper was to draw the attention and understand the mindset of people in this situation. From the data analyzed it is clear that there is an impact about the need amongst citizens. May it be cotton bags or EV, people have accepted and tried to shift their patterns to make the environment safer. All they expect is the right direction and equivalent options to choose to help the planet become green again.

References

Climate explained: are consumers willing to pay more for climate-friendly products? (2020)

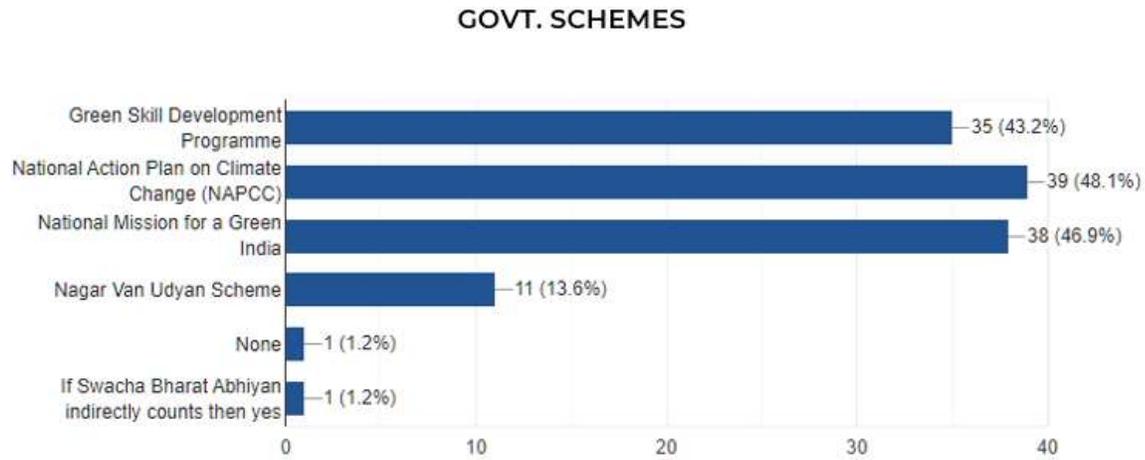
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FIG (5.12): A list of government schemes dedicated to the green environment.

1. Discussion:

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WHY CAN'T WE HAVE GREEN ENVIRONMENT

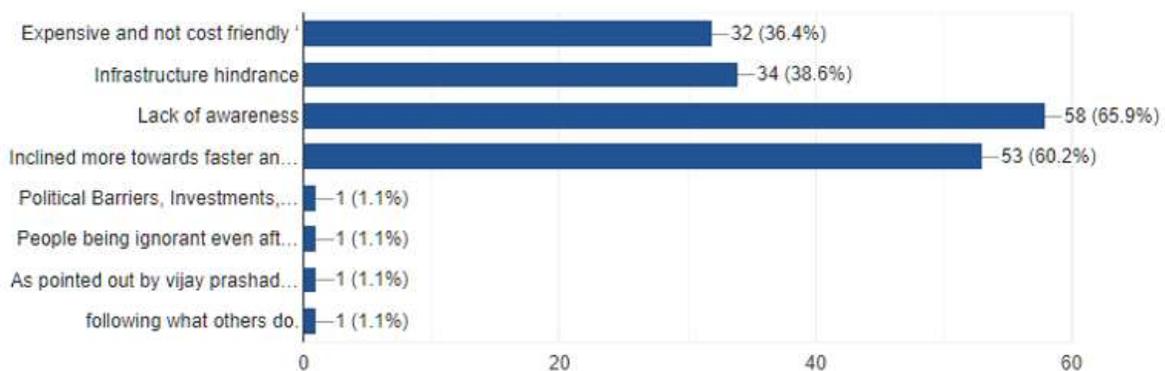


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Whereas the majority (65.9%) selected that the awareness was a major issue, they also pointed out that they would rather use products which make their lives easier and faster than use green products which is something that should be worked upon by the relevant authorities.

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Conclusion:

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