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Local Adaptation Towards Climate Change: A Case Study of Iranian Immigrants

Does the level of income affect people's behavior in relation to climate change?

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Abstract

This research paper throws light on a unifying theoretical framework for better understanding the relationship between climate change and income. Different case studies described in literature prove that not only poor states but also developed states are affected by the climate change. Literature also uncovered that the most vulnerable among them are resource-less countries, who have limited financial resources to cope with disasters. Extreme weather conditions threaten lives in these front-line communities, driving people from their homes and jeopardizing food sources and livelihoods, all of them are increasing likelihood of more conflict,hunger, and poverty. It will be a unique contribution in a research pool in terms of individual's behavior towards climate change on the basis of their monthly income because in past many researches are conducted on income inequality and climate change at country level. The core interest of this study is to investigate that; how earning will contribute in actions of an individual towards climate change. Both online and offline questionnaire-based survey was conducted on a sampleof 445 comprises of all gender (Iranian Immigrants) in Sweden. Data were analyzed by using descriptive statistics. This study reveals that Income and buying behaviors contributed a lot towards climate change.

Keywords: Climate change; Income; Gender; Inequality; GDP; PPI

1. INTRODUCTION

Income has a direct interrelationship with the individual behavior. Tim Gore (2015), chief of food and climate policy at Oxfam, said: "Climate change and economic inequity are intimately linked and together pose one of the greatest challenges of the 21st century". The foremost contributors to climate change are rich people in the Western world living an extravagant and modern lifestyle, yet the ones that are most pretentious by climate change are poor people in other regions of the world. According to report made by Oxfam in 2015, "the poorest half of the world's population; 3.5 billion people is responsible for just 10 percent of carbon emissions" (Oxfam, 2015) even though they are under the biggest threat of being hit with calamitous storms, droughts, and other hazardous weather happenings as a result of climate change. A person among one percent of the richest people in the world emits an average of "175 times more carbon" than a person in the poorest 10 percent (Colarossi, 2015).

In the last century, climate change has reached different level and led to a lot of negative consequences, such as raised temperatures, extreme weather events, and rising sea levels. Amnesty International writes on its website

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that it has been proven that the biggest contributors to the warming in the latest century are humans (Amnesty International).

Climate change can be seen as a major dilemma between rich and poor countries as well as deprived and financially stable human beings. The developed countries and the people who are enriched with resources can deal with undesirable consequences from the climate change, that is valid for only short period of time. The poorer countries lack resources and resilience to deal with the adverse consequences of climate breakdown on their own. Uchoa (2019) writes in his article "*How global warming has made the rich richer"* that climate change has contributed to increasing the disparity between countries. He refers to researchers from Stanford University, who claims that "the gap between the world's poorest and richest countries is about 25 % larger todaythan it would have been without global warming". For example, underdeveloped countries like Mauritania and Niger have 40% less GDP per capita income as compare to develop countries GDP Per capita income if they would not have been affected by global warming (Uchoa, 2019). As an estimate, researchers found that the climate change will lessen average income by 75 percent in 2100 in deprived countries while the richest 20 percent of countries may experience trivial expansion because of their action towards climate change (University of Cambridge, 2019).

Temple states (2019) that "Climate change by this time made poor countries poorer and rich countries even richer, that too because of their geographical location whereas the Less privileged countries have been affected hard because of their location in those areas of the world that already has a burning climate, for example South Asia, Central America and Central African Republic. In aforementioned areas, even a small degree raise in temperature can quickly bring down labor proficiency and agricultural yield (Hourticq et al., 2013). Also, it is usually those countries that are unable to bear or have the resources that are required for investment in concerned gadgets, infrastructure, and programs to tackle these dangers. In the contrary, countries where atmosphere is comparatively cooler: a slight degree raise in the temperatures can lead to increase in the productivity and agricultural revenue. An example of this is Norway, where warming is likely to have boosted per capita GDP income by 34 % over what they would have come across if global warming did not exist in this part of the globe (Temple, 2019). A part from global warming migration has also contributed in increase of GDP of privileged countries. However, member countries of SDGs are still not successful in making progress towards more sustainable and climate resilient world. Many researches have been conductedto discuss how climate change effects the rich world countries and poor countries but no comprehensive study is seen in respect of buying behavior of an individual towards climate change.

We believe that there is a relationship between income and the behavior of individuals toward the climate change. In this paper, we will aim to investigate that the income brackets of individuals unwittingly affect their behavior towards climate change. This paper will be a unique contribution in a research pool.

1.1. Variables and Research Questions

Individuals Income is a Dependent Variable whereas Gender inclination towards recycling and buying environment-friendly products are independent variable through we can investigate behavior towards climate change. By using these variables simple statistical technique will use to analyze below questions through we will reject or accept the hypothesis.

- This study will investigate which gender, in respect of income, is more inclined to climate change issue?
- How a certain income group contributes to positive trends in climate change by means of masstransit systems?
- How different income groups trending positively in terms of buying environment-friendlyproducts and the like?

2. PREVIOUS STUDIES

Scholars have extensively explored the intricate relationship between climate change, incidents, and human mobility, offering diverse perspectives on the multifaceted challenges and opportunities presented by this intersection.

In her work, Naomi Klein (2014) in "This Changes Everything" argues that climate change is deeply entwined with capitalism, asserting that the pursuit of profit often exacerbates environmental degradation and fosters a cycle of vulnerability leading to forced migration.

Adams (2016) emphasizes the significance of incidents such as hurricanes, floods, and droughts as direct catalysts for population displacement. Vulnerable communities, particularly in low-income regions, are disproportionately affected, reinforcing existing socio-economic disparities and compelling individuals to migrate in search of safer environments.

McLeman and Hunter (2010) focus on the concept of environmentally induced migration, highlighting how climate change acts as a "threat multiplier" in regions already grappling with resource scarcity and political instability. Their work underscores the need for adaptive strategies and policy frameworks that account for the complex drivers of migration.

Building on this, McLeman (2013) explores the role of planned migration as an adaptive response to climate change. Managed retreats and relocation initiatives, when strategically implemented, can enhance community resilience, offering a proactive approach to mitigate the impacts of incidents.

The legal dimensions of climate-induced migration are addressed by Warner and Afifi (2014). They critically examine the inadequacy of existing international frameworks in recognizing and protecting climate refugees, emphasizing the urgent need for legal instruments that account for the unique challenges posed by environmentally induced displacement.

In conclusion, the above literature reflects a consensus among scholars that climate change, incidents, and human mobility are interconnected phenomena that demand comprehensive interdisciplinary approaches. Although these studies give deep understanding about the socio-economic impacts to proposing legal frameworks and adaptive strategies to the ongoing discourse surrounding this complex nexus but comprehensive study is required to find the link between income of individuals and climate change in socio-economic impacts.

3. THEORETICAL VIEWS

Every individual has their own preferences and likings, and they always pick out things accordingto their personal choices. The rational choice theory which is also called rational choice theory ora choice theory discusses a course of action that aids to comprehend the social and economic behavior (Ogu, 2013). This theory hypothesizes that; an individual will always do self-cost benefitanalysis to examine which course of action is more appropriate for them that will offer them withutmost benefit (Ganti, 2019).This theory also describes a human decision-making model that explains behavior of society in the form of individual actions as explained by rationality, in whichrational choices are based on their objectives because they are made by their personal choices whose outcome would be to maximize the individual's satisfaction or return in a way they think will serve an individual's best (Amadae, n.d.; Ganti, 2019). For example: an individual opts to quitsmoking to protect himself/herself from ill health while contrary to another individual opts to continue smoking as he/she might believe it is a source of relieving stress for herself/himself. Although both choose different from each other but both individuals make their decision accordingto their personal preferences.

Reasoned Action Theory conjecture that behavior of an individual is determined by their intention to engage in it, influenced by the importance that an individual place on the behavior, the comfortwith which it can be performed and the views of/to significant others (Morris et al., 2012). Theoryof Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) which was presented in 1980 (Wayne, n.d.) centered on the stand-point that individuals make logical,reasoned decisions to engage in specific activities by evaluating the resources available to them (Ryan & Carr, 2010). For example, the GNP (gross national product) of those areas which have greater per capita income, people disburse more on services as compared to goods i.e. People withhigher incomes are nowadays more focused on spending their incomes on more environment friendly expenditures, they focus more on energy efficient ways of living. In that they try to shift the production facilities of products which are environmentally harmful out of their countries so as to keep their own living environment more clean and energy efficient (Carson, 2010; Swim et al., 2011).

The effect of economic circumstances on an individual's opinion about climate change has always remained an unanswered question from the start of modern environmental association. People have pre-meditated three major viewpoints that show how economic settings affect human behavior towards environmental issues. In nowadays

era of materialism the mindset of different class is different. For example, post-materialists see the high-income class has a view of tackling the environment by adapting to cultural changes over a longer time period. The middle class believesin short time actions which are mostly based on economic conditions prevailing at that time. Thoseactions are short term based. The third viewpoint is that environment is to be tackled at governmentlevel and long-term policies have to enforced at administration level and enforced for a longer timeperiod (Swim et al., 2011).

Some studies show that men more tend towards comfort than women (Dalen & Halvorsen, 2011). Some researches show that with the increase in income, people start aspiring towards a comfortablelifestyle. Albert Bandura, a psychologist presented Social Cognitive Theory in 1977describes that; individuals are not motivated by the internal factors but also by external forces (Lopez-Garrido, 2020). This model proposes that human performance can be determined by a triadic relation of behavior, environmental factor and personal factors. This is well known as "reciprocal determinism" (Pajares, 2002). Environmental factors stand for situational influences, societal influences or the setting in which behavior is being performed. The concept of self-efficacy is a central principle of social cognitive theory (Lippke, 2017). Bandura (1989) explains that when an individual has a strong insight of efficacy then the individual must value the consequences or outcome that they think will take place as a result of doing a specific action or behavior (World Bank. n.d.,). For example: an individual who has higher sense of efficiency in bringing change tothe atmosphere even the individual is not completely aware of it but will motivate their self to playtheir part for bringing change.

4. METHODOLOGY

This study is based on Deductive Reasoning where different theories and previous studies used to analyze the data that we gathered through the questionnaire by using survey method. Random sampling technique was used for gathering data from 445 samples comprises of all genders working, studying or enjoying retired life in Sweden. The questionnaire based on all four elements facts, attitude, belief and behavior comprised of 16 questions. The questionnaire was based on a close-ended question by using Likert, dichotomous style for getting the conclusive answer from the rational respondent. Before collecting the data surveyor explained the concept to the respondent. Both online and offline method was used for collecting data that is analyzed further by using simple descriptive statistical analysis and cross-tabulation to prove or reject the purposeof the study whereas confidence level (CI) is tested by using mean proportion and it appears 95% with margin of error both upper and lower 2.5%.

4.1. Scientific Research and Publication Ethics

In the study, all the rules specified to be followed by the *"Higher Education Institutions Scientific Research and Publication Ethics Directive*" were complied with. None of the actions specified in the 2nd part of the Directive, titled "*Actions Contrary to Scientific Research and Publication Ethics*", were carried out.

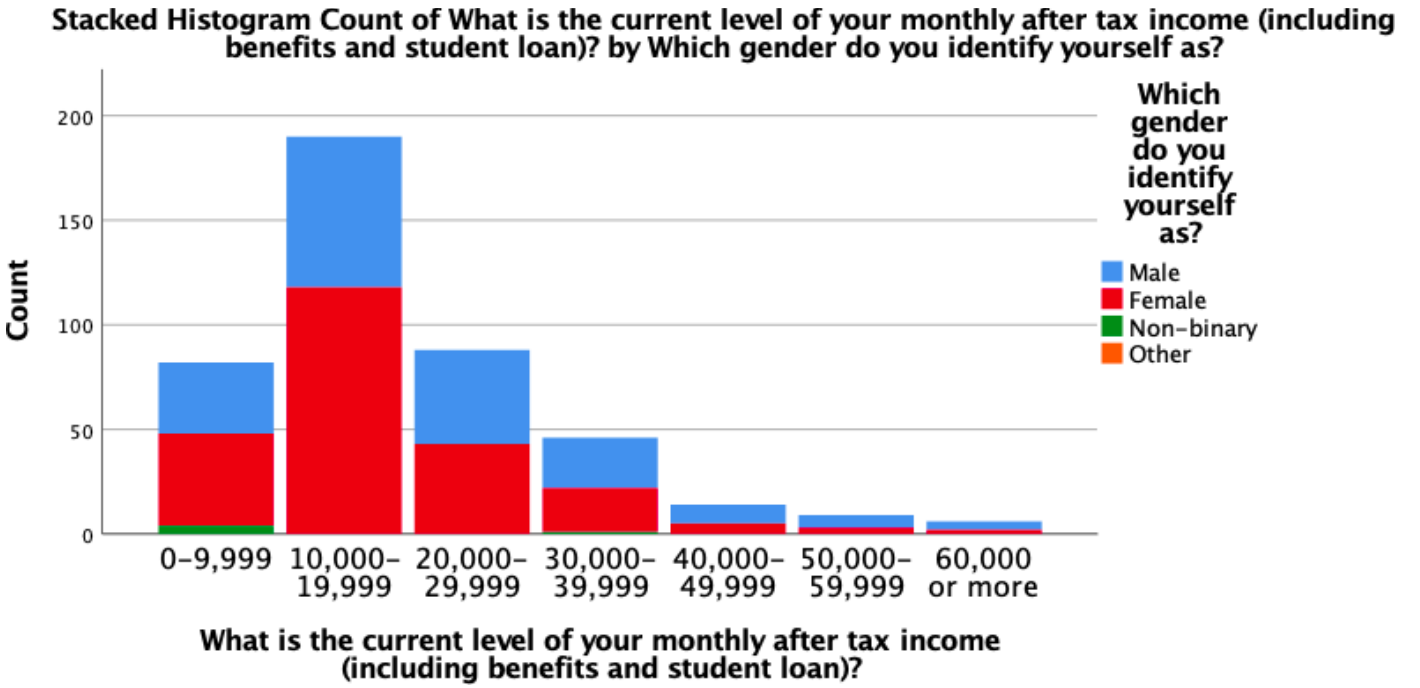
5. LIMITATION OF THE STUDY

The survey is conducted to observe the behavior of different income group of Iranian immigrants in Sweden towards climate change. This survey is limited to a specific region and through these finding, we cannot justify the behavior of different income group towards climate change from other regions of the world. This survey is basically conducted in developed state so the findings cannot justify that people who are living in other parts of the world (poor states) having same behavior towards climate change.

6. FINDINGS

6.1. Recycling Behavior of Different Income Groups

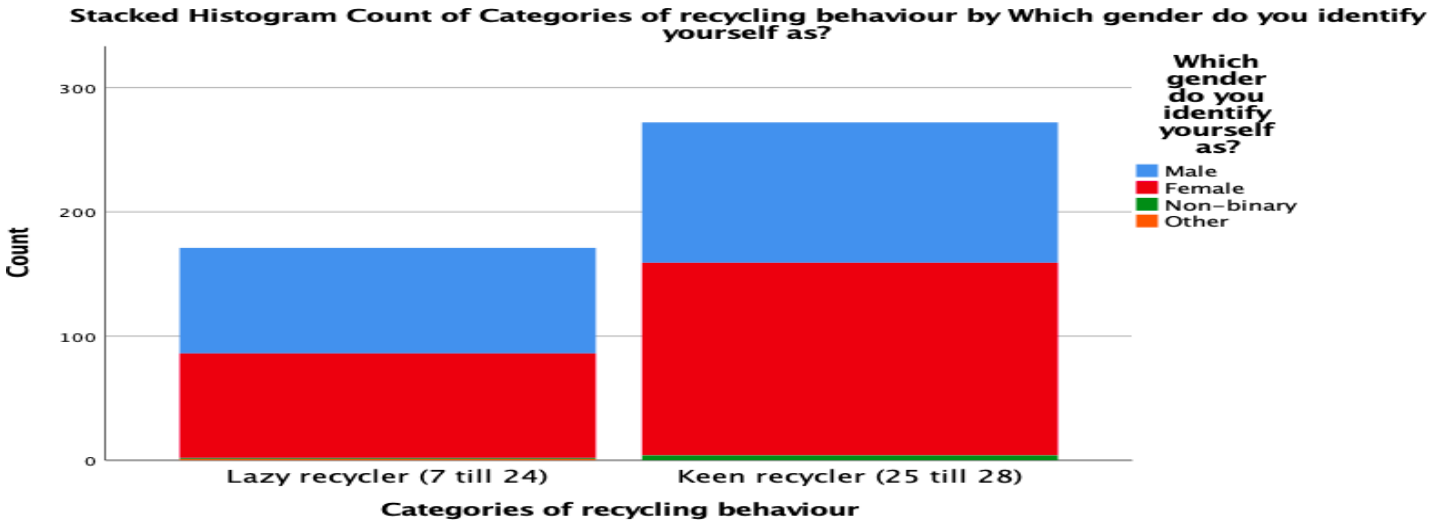
In Graph 1 monthly income of individuals (including benefits and student loans) is being evaluated in respect to their gender and gender ratio is calculated according to their inclination towards recycling in correspondence to their income. In graph 1, finding shows that there is an almost equal ratio to their inclination towards recycling keeping in view their income distribution except for theincome group SEK10,000 to 19,999 (Swedish Kronor) where there is slight discrepancy, as ratio tilts more in favor of women in this group same in case of income group (SEK0 to 9,999).



Graph 1.

6.2. Gender and Recycling Behavior

Whereas in graph 1.1 recycling behavior of different genders is being compared (predominantly males and females) and gender ratio is computed with respect to their recycling behavior. Findings in graph 1.1, shows that the majority of females are more prone to recycle as compared to the other groups. Findings also shows that age group (25 to 28) are more keen towards recycling while agegroup (below 24 are indolent in recycling).



Graph 1.1.

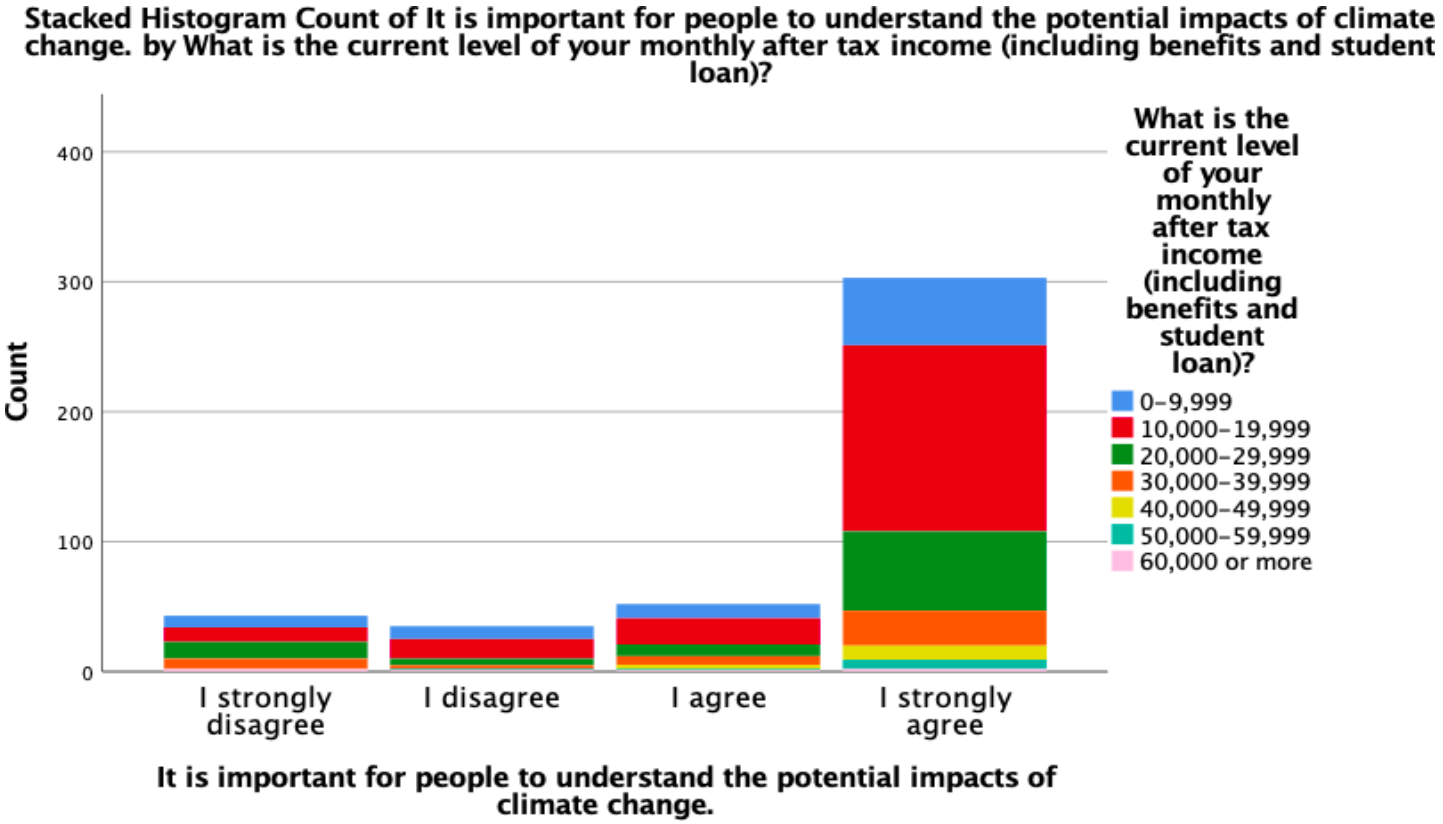
6.3. Income and Gender Vis-A-Vis Climate Change

Below table demonstrate how people in different income groups consider potential impact of climatechange in their life. Table 2. shows the distribution of income with respect to gender. The table shows that there is a slightly higher number of women among the participants. There are 118 females in the income group SEK10,000-19,999 and the majority in that income group chose “I strongly agree” as it is visible in graph 2. It shows that the majority of females think that there willbe a great impact by climate change in their life as compared to males but the overall ratio showsthat both gender thinks that climate change really matters in their life.

Table 2. What is the Current Level of Your Monthly After-Tax Income (Including Benefits and Student Loan)? *Which Gender do You Identify Yourself as? Cross-Tabulation

Count

		Which gender do you identify yourself as?			Total
		Male	Female	Non-binary	
What is the current level of your monthly after-tax income (including benefits and student loan)?	0-9,999	34	44	4	82
	10,000-19,999	72	118	0	190
	20,000-29,999	45	43	0	88
	30,000-39,999	24	21	1	46
	40,000-49,999	9	5	0	14
	50,000-59,999	6	3	0	9
	60,000 or more	4	2	0	6
Total		194	236	5	435

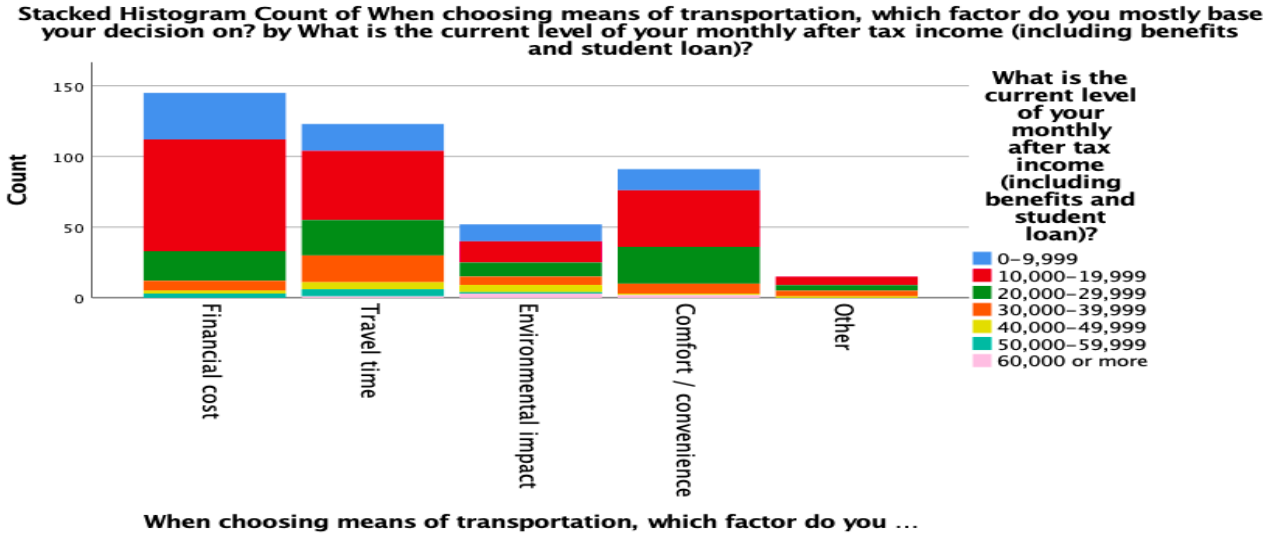


Graph 2.

6.4. Personal Preference

Graph 3 demonstrates that people in different income groups while making their choice about mode of transportation consider after effects on environment. Findings from Graph 3. shows that the minority in all income groups, except the highest income group (SEK60,000 and more), decidetheir means of transportation of environmental impact. The majority of the people in the lower income groups made their decision of transportation on the basis of financial cost, travel time andcomfort. Table 3 shows that only 11.9 % of the

people of (SEK10,000 to 19,999 income group base their decision of significant environmental impact. Majority of female are in this income group.



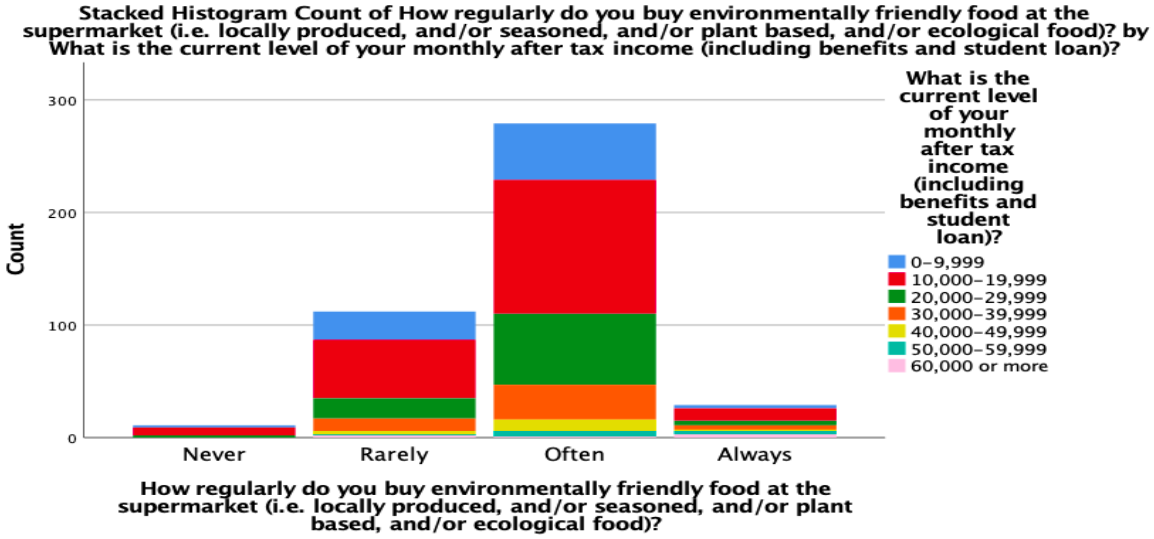
Graph 3.

Table 3. While Choosing Means of Transportation the Factor Mostly Make Your Decision

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial cost	148	33,3	34,1	34,1
	Travel time	126	28,3	29,0	63,1
	Environmental impact	53	11,9	12,2	75,3
	Comfort / convenience	92	20,7	21,2	96,5
	Other	15	3,4	3,5	100,0
	Total	434	97,5	100,0	
Missing	System	11	2,5		
Total		445	100,0		

6.5. Buying Behavior and Climate Change

Graph 4 demonstrates that the individuals with different income group chose environmental friendly product for their living. Findings in graph 4 show that; the majority of the people in the highest income group choose the option that they always buy environmentally friendly products whereas, majority within the lowest income group choose “often” and “rarely”. Surprisingly survey also shows that few people from low-income group are also considering environmental friendly product while doing grocery.

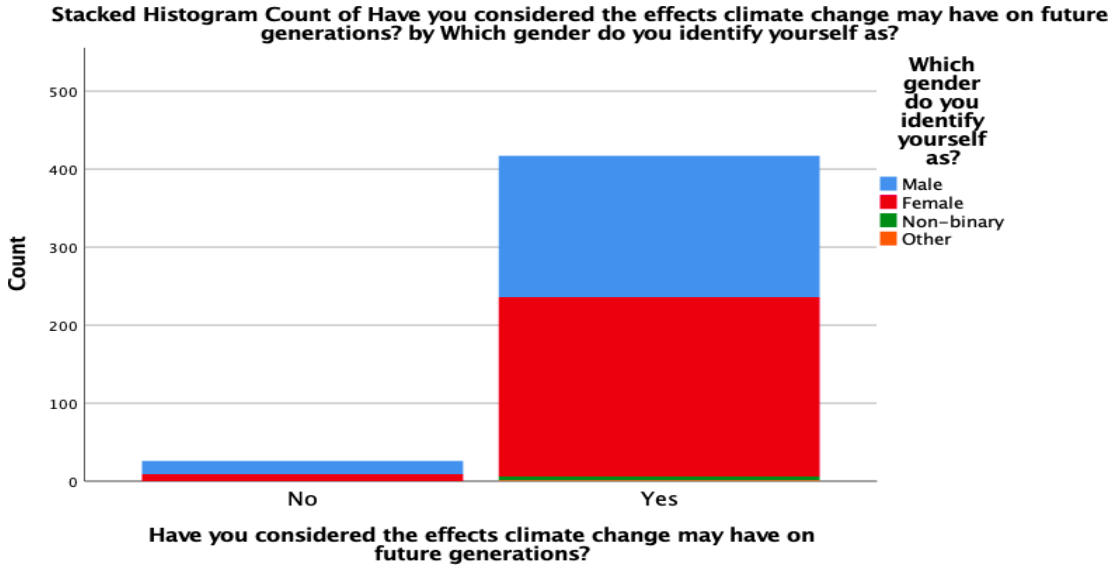


Graph 4.

6.6. Gender Inclined toward Climate Change Issue

Graph 5 examined that which gender is more aware and considers the future impact of climate change on our future generations while buying products. Finding in graph 5 shows that almost all

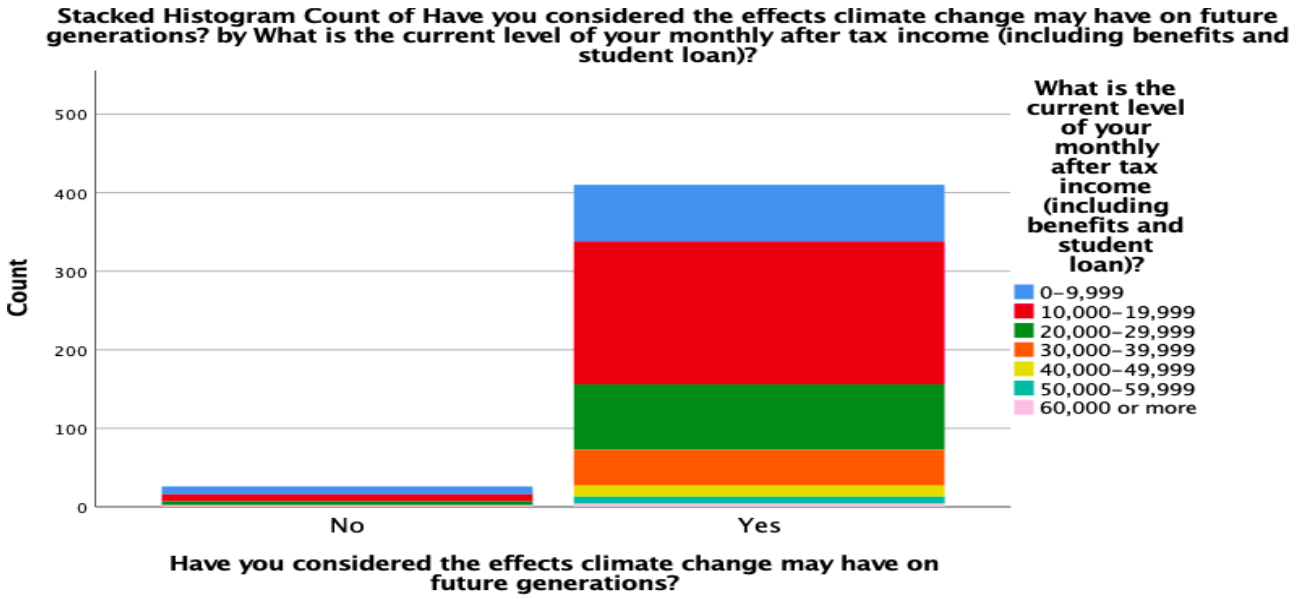
gender groups have equally considered the effects of climate change for future generations butfemale from all gender groups are slightly more vibrant than other gender.



Graph 5.

6.7. Individual with Different Income Groups Inclined toward Climate Change Issue

Graph 5.1 demonstrates that individual with different income groups inclined toward climate change and they believe climate change have effect on future generation. Findings in graph 5.1, shows that the majority of all income groups have believed that climate change have effect on future generation. In our statistics, the majority of females within the income group (10,000- 19,999) consider that future generations will be affected by climate change. Surprisingly few individuals with higher earning group are least bothered about the future implications of climate change on their coming generations when they buy any product or choose any mode of communication.



Graph 5.1.

7. DISCUSSION

By analyzing our statistics of the conducted survey, we conclude from graph 1. that the majority of people recycling behavior is based on personal choice and the satisfaction that they get in returnas the rational choice theory proves. The statistics in graph 1.1 shows that; females are more inclined to recycling as compared to men. Because they see it as beneficial and that is proven by the rational choice theory as well. The result of the statistics in graph 3 regarding the question about the choice on different means of transportation shows that people always go with their personal preferences (travel time, cost etc) and they do not bother other factors like climate changeetc., which is proved by the reasoned action theory and the theory of Planned behavior. The statistics also proves that most people make their decisions based on comfort and mainly on the basis of cost or the resources that are available to them is also proved by the reasoned action theory.If we see the statistics in graph 3, the three lowest income groups were the majority that picked comfort and travel cost while making their decision as described in reasoned action theory.

The theory of planned behavior explains why the richer spend more on services rather than goods and that is because of satisfaction. If we look at the statistics, graph 5 proves that a specific income group bases their decision of environmental impact. Mostly in the higher incomegroup thinks that they can contribute to a positive difference for the climate for the future generation. They have access to resources to make an impact.

The post-materialism viewpoint talks about that social status affect human behavior towards environmental issues. Before the social status mattered a lot but that does not seem to be accurateanymore. Today more people are aware of the effects of climate change and chose to take action.The statistics in graph 3 shows that even the low-income group with low social status are concernedabout the climate. The statistics prove that the post-materialism viewpoint is not applicable in thiscase.

The ecological modernization theory claims that people approach towards climate change can be shaped by their economic self-interest. This can be shown in graph 3, where the majority of peoplemade their decision based on the financial cost over environmental impact. This is also proven inthe examples mentioned in our introduction. In Oxfam's report, it is shown that some of the richesthave the most negative impact on climate change, yet the poor people are most affected. Pablo Uchoa mentions how inequality between countries has grown because of climate change. The richpeople cannot see an economic self-interest in trying to slow down climate change and thus they do not see it as important to act on it. However, in our statistics, it shows that a small part of the highest income group chose comfort and convenience while the rest of the highest income group chose environmental impact.

According to the social cognitive theory, Bandura explains that not only internal factor but also external factors have an effect on individual life. If we look at the graph 4.1, the second and thirdlowest income groups chose 'rarely' or 'often' buy environmentally friendly products. For them both factors, internal and external matters,

such as cost and environment. That is proven in our statistics in graph 3. In graph 1.1, there we can observe that the majority of the people are keen recycler because for them, the external factors really matter.

8. CONCLUSION

Our statistics and confidence level proves that income has a direct relationship with the behavior of an individual with respect to climate change. Not only the theories claimed but also the actionsof individuals prove that for them the external factors, like climate change, really matters for theirfuture generation. If we see the world, countries having high (PPI) have more things running regarding climate and environment, also the Governments which have GDP high have a leverageof spending of climate and environment projects. In contrary to that, for some income groups, likethe lower ones, financial cost matters a lot. Mostly their incomes are focused on meeting the life sustain ace expenses in that they are weary of spending an extra just to cater for the environment, yet still they care about the environment. Also, at individual levels a person or family living in a developed state but having less income might not be concerned about environment where as a person or family having high income in low-income countries would adopt more environmental friendly practices. So as a whole the environment or climate friendly laws and habits have to be enforced at government level and should be less expected at an individual level. Enforcement couldonly make the future planet earth friendlier to live.

9. RESEARCH GAPS FOR FUTURE STUDY

This study addresses the buying behavior of an individual towards climate change whereas this study does not discuss the impact of corporate and government spending towards climate change. In future researchers can research on this area that will contribute in framing laws and devised strategies to attain the SDGs for green future.

10. DECLARATION

Scientific Research and Publication Ethics: In the study, all the rules specified to be followed by the *"Higher Education Institutions Scientific Research and Publication Ethics Directive*" were complied with. None of the actions specified in the 2nd part of the Directive, titled "*Actions Contrary to Scientific Research and Publication Ethics*", were carried out.
Statement of Researchers' Contribution: It is a single-authored study.
Conflict of Interest: The authors declare no potential conflict of interest.
Financial Conflicts: There are no financial conflicts of interest to disclose.

11. REFERENCES

Adams, H. (2016). Why populations persist: mobility, place attachment and climate change. *Population and Environment, 37*, 429-448. [Online Available at]: https://doi.org/10.1007/s11111-015-0246-3

Amnesty International. *Climate Change*. [Online Available at]: https://www.amnesty.org/en/what-we-do/climate-change/

Amadae, S. M., n.d. *Rational Choice Theory*. Encyclopedia Britannica [Online Available at]: https://www.britannica.com/topic/rational-choice-theory#ref307955

Bandura, A. (1989). *Social Cognitive Theory*. In R. Vasta (Ed.), Annals of child development. Vol. 6. Six theories of child development (pp. 1- 60). Greenwich, CT: JAI Press. [Online Available at]: https://www.uky.edu/~eushe2/Bandura/Bandura1989ACD.pd

Carson, R. T., (2009). *The environmental Kuznets curve: seeking empirical regularity and theoretical structure.* Review of environmental Economics and Policy, 4(1), pp.3-23. [Online Available at]:https://econweb.ucsd.edu/~rcarson/papers/Reep2010.pdf

Colarossi, J., (2015). *The World's Richest People Emit the Most Carbon*. Our World. United nation University [online available at]: https://ourworld.unu.edu/en/the-worlds-richest-people-also-emit-the-most-carbon

Dalen, M. H., Halvorsen, B., (2011). *Gender differences in environmental related behavior*. Statistisksentralbyrå. Statistics Norway. [Online Available at]: https://www.ssb.no/a/english/publikasjoner/pdf/rapp_201138_en/rapp_201138_en.pdf

Ganti, A. (2019). *Rational Choice Theory*. Investopedia. [Online Available at]: https://www.investopedia.com/terms/r/rational-choice-theory.asp

Hourticq, J., Megevand, C., Tollens, E., Wehkamp, J., & Dulal, H., (2013). *Deforestation Trendsin the Congo Basin Reconciling Economic Growth and Forest Protection*. Africa Region The World Bank [Online Available at]: http://documents1.worldbank.org/curated/en/865081468010199196/pdf/779380NWP0P1160Agriculture0Sectoral.pdf

Klein, N. (2015). *This changes everything: Capitalism vs. the climate*. Simon and Schuster.[Online Available at]: This Changes Everything: Capitalism Vs. The Climate - Naomi Klein - Google Books

Lippke, S., (2017) Self-Efficacy Theory. In: Zeigler-Hill V., Shackelford T. (eds) Encyclopediaof Personality and Individual Differences. Springer, Cham. [Online Available at]: https://doi.org/10.1007/978-3-319-28099-8_1167-1

LaMorte, Wayne W., *The Theory of Planned Behavior*. Behavioral change Model. [Online Available at]: https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/BehavioralChangeTheories3.html#headingtaglink_1

Lopez-Garrido., G. (2020). *Self-Efficacy Theory*. Simply Psychology. [Online Available at]: https://www.simplypsychology.org/self-efficacy.html

McLeman, R. A., & Hunter, L. M. (2010). Migration in the context of vulnerability and adaptation to climate change: insights from analogues. *Wiley Interdisciplinary Reviews: Climate Change*, *1*(3), 450-461. [Online Available at]: https://doi.org/10.1002/wcc.51

McLeman, R. (2013). Developments in modelling of climate change-related migration. *Climatic change*, *117*, 599-611. [Online Available at]: https://doi.org/10.1007/s10584-012-0578-2

Morris, J., Marzano, M., Dandy, N., & O'Brien, L., (2012). *Theories and models of behaviour and behaviour change*. Forest Research: Surrey, United Kingdom. [Online Available at]: https://www.forestresearch.gov.uk/documents/1409/behaviour_review_theory.pdf

Oxfam International. (2015). *World's richest 10 % produce half of carbon emissions while poorest 3.5 billion account for just a tenth*. [Online Available at]: https://www.oxfam.org/en/pressroom/pressreleases/2015-12-02/worlds-richest-10-produce-half- carbon-emissions-while-poorest-35

Ogu, M. I., (2013). *Rational choice theory: Assumptions, strengths, and greatest weaknesses in application outside the western milieu context*. Nigerian Chapter of Arabian Journal of Businessand Management Review, 6*2*(1087), 1-10. [Online Available at]: https://www.semanticscholar.org/paper/RATIONAL-CHOICE-THEORY%3A-ASSUMPTIONS%2C-STRENGHTS%2C-AND-Ogu/88f85e51aad54ef5a564e270bf54cc5ba8fdf3da?p2df

Ryan, S., Carr, A. (2010). *Theory of Planned Behavior*. Science Direct. [Online Available at]: https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/theory-of-planned-behavior

Swim, J. K., Clayton, S. and Howard, G. S., (2011). *Human behavioral contributions to Climatechange: Psychological and contextual drivers.* American Psychologist, 66(4), p.251. [Online Available at]:https://sci-hub.se/http://dx.doi.org/10.1037/a0023472

Temple, James. (2019). *Climate change has already made poor countries poorer and rich countries richer.* MIT Technology Review. [Online Available at]: https://www.technologyreview.com/s/613386/climate-change-has-already-made-poor-countries-poorer-and-rich-countries-richer/

University of Cambridge. (2019, August 19). *Climate change to shrink economies of rich, poor,hot and cold countries alike unless Paris Agreement holds*. Science Daily. [Online Available at]: www.sciencedaily.com/releases/2019/08/190819082450.html

Uchoa, Pablo. (2019). *How global warming has made the rich richer.* BBC World Service. [Online Available at]: http://www.bbc.com/capital/story/20190502-how-global-warming-has-made-the-rich-richer

World Bank. n.d. *Theories of Behavior Change*. Communication for Governance and Accountability Program [Online Available at]: https://siteresources.worldbank.org/EXTGOVACC/Resources/BehaviorChangeweb.pdf

Warner, K., & Afifi, T. (2014). Where the rain falls: Evidence from 8 countries on how vulnerable households use migration to manage the risk of rainfall variability and food insecurity. *Climate and Development*, *6*(1), 1-17. [Online Available at]: https://doi.org/10.1080/17565529.2013.835707