SURVEY REPORT:

Youth Empowerment Towards Circular Economy & Resource Efficiency

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Introduction

As the majority of India's growing population is young, the Indian Youth Climate Network (IYCN) with the support of EU-REI-II proposes an activity to sensitize and disseminate knowledge on circular economy and resource efficiency to the youth in the country. The idea is to empower them to take action by identifying key areas of engagement, where youth can play a catalytic role, and developing circular innovative ideas and initiatives for mainstreaming circular economy.

To capture the status and identify needs and areas for future action, a baseline needs assessment survey was carried out among the Indian youth. The purpose of this survey report is to document the current situation, including youth involvement in Circular Economy and Resource Efficiency principles, local initiatives and solutions, and Circular Economy businesses, as well as to identify youth needs, interests, and areas for action, including those related to skills and green jobs.

Objective

The objective of the survey is to understand young people's perception, knowledge, awareness, concerns, and initiatives toward circular economy.

Methodology

A questionnaire with both open-ended and closed-ended questions was constructed based on the survey objective. The survey was conducted online, guaranteeing the confidentiality and anonymity of all responses. To make sure that the survey sample is fair and representative of the intended population, the respondents come from various geographic locations.

Analysis and Interpretation

A: SAMPLE SIZE & DEMOGRAPHY

The sample size for the online survey was conducted with a total of 400 respondents aged between 18 and 35 years.

i. Respondent diversity:

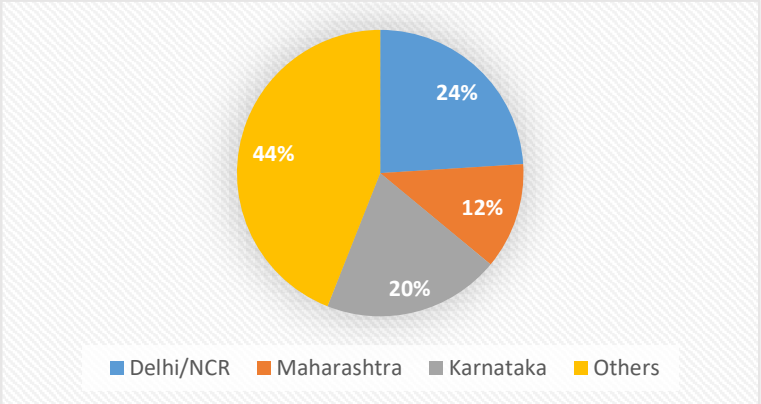

Figure 1: Respondent Diversity

Majority of respondents are from Delhi, with 96 out of 400 respondents (or 24%) coming from this state. Karnataka and Maharashtra are the next most represented states, with 79 (or 19.75%) and 47 (or 11.75%) respondents respectively. The remaining respondents (44.5%) come from various other states. This indicates that the survey sample had representation from different states across India.

ii. Gender Representation:

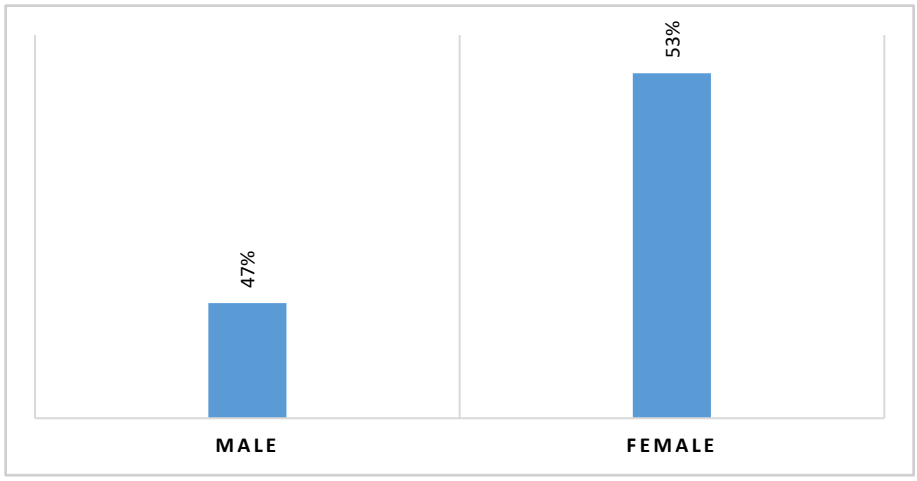

Figure 2: Division of respondents according to sex

Most of the respondents are female accounting for 212 (53%) of the total, while male respondents make up 188 (47%). This shows that there is a good gender balance in the survey sample. It can be inferred that the survey results represent a gender-diverse population, with a slightly higher proportion of female respondents. This information can be used to better understand the perspectives and experiences of the respondents.

iii. Age demography

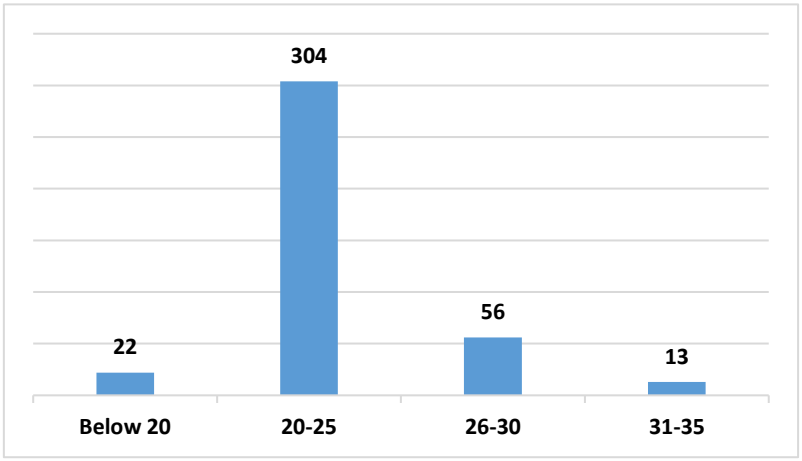

Figure 3: Age Demography

Based on this data, we can see that majority of the respondents fall into the 20-25 age range, with 304 out of 400 respondents (or 76%) falling into this category. The next largest age group is 26-30, with 56 respondents (or 14%) falling into this category. The remaining age groups

make up a relatively small proportion of the overall sample. It's worth noting that the age distribution of the sample is skewed towards younger respondents, with only a small number of respondents above the age of 30 as the focus of the survey is the youth of the country.

iv. Educational Qualification

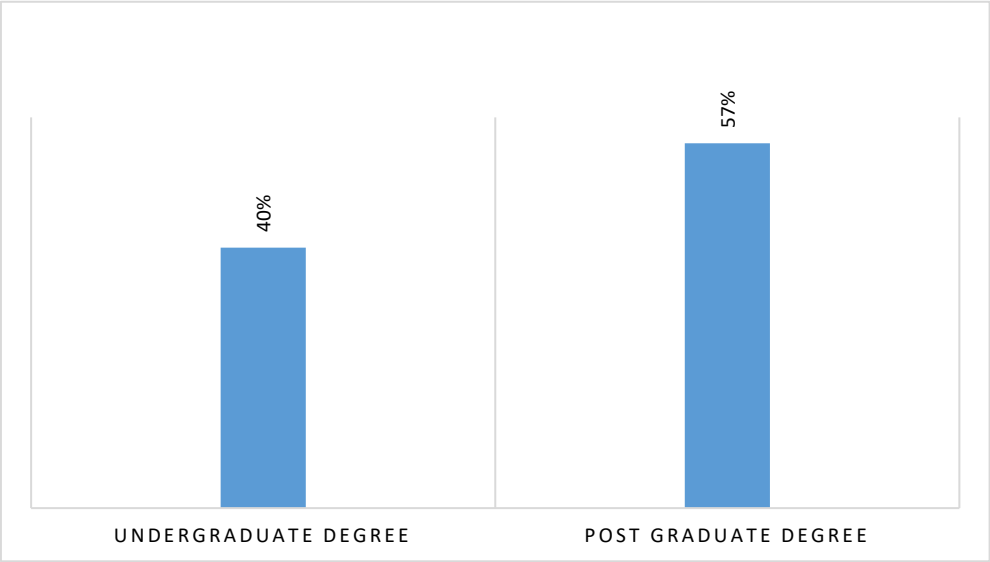

Figure 4: Educational Qualification

Many of the respondents have a post-graduate degree (57.3%), followed by those with an undergraduate degree (40%). A small percentage of respondents have a high school degree (3%) and only one has a Ph.D. Degree. This suggests that the respondents are highly educated and likely to have specialized skills and knowledge in their respective fields.

Overall, the survey respondents represent a diverse group of young people from different regions of India, with a majority of them having post-graduate or undergraduate degrees. The educational qualification of the respondents suggested that the youth from both the backgrounds are equally interested in the topic of circular economy and sustainability.

B. PERCEPTION ANALYSIS

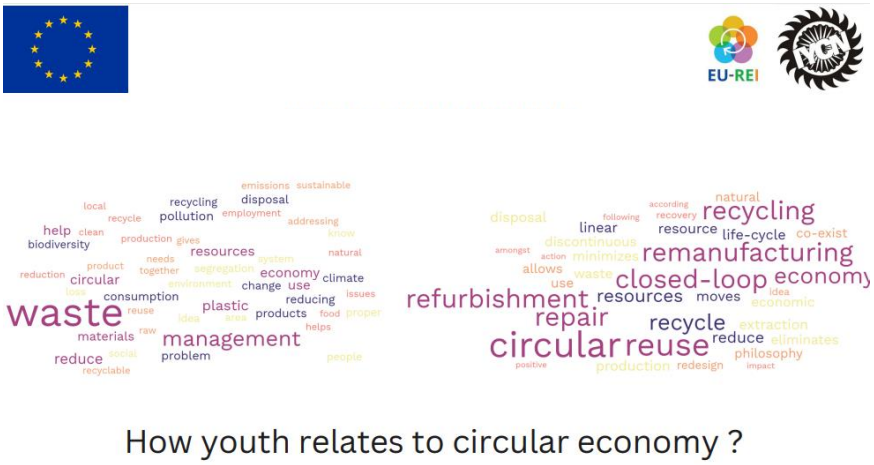

Figure 5: Perception Analysis

According to the analysis of the respondent's perception, a sizable portion of young people understands the principles and goals of circular economy, with 55% acknowledging that it involves reuse, repair, refurbishment, and recycling. Additionally, 75% of respondents agree that waste management is a crucial part of circular economy.

The study also shows that, for 62% of respondents, one of the main goals of circular economy is to increase product lifespan and consumption. Furthermore, 48% of respondents recognize that upstream actions, such as shifting from non-recyclable to recyclable products, are essential for waste management and another 41% of respondents believe that recycling has the most positive impact. Waste disposal is a growing source of concern in respondents' cities or towns, with more than 41% citing it as a problem.

Lastly, it is reassuring to see that a significant portion of respondents (44%) correctly identified Sustainable Development Goal No. 12, which is focused on responsible consumption and production as the following SDG aligns with circular economy.

C. KNOWLEDGE LEVEL

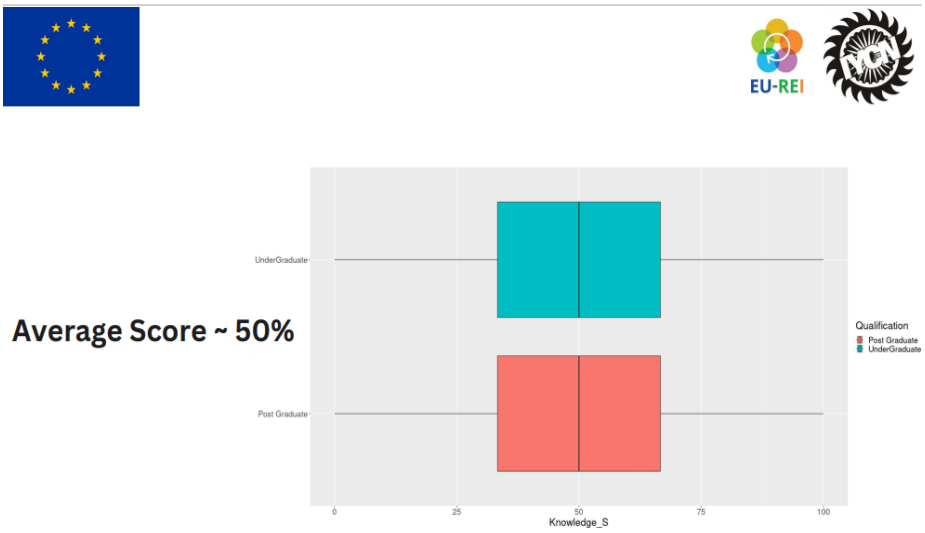

Figure 6: Knowledge Level

According to the survey results, for both postgraduate and undergraduate respondents, the average score on the questionnaire related to circular economy and resource efficiency was 50%. The questionnaire covers a variety of topics related to circular economy, including the benefits, eco-design, recycling labels, waste management, the rebound effect, regulations, activities, and sustainable development goals.

The findings indicate that there is a considerable knowledge gap on circular economy and resource efficiency among the surveyed youth. Although they were aware of the benefits of circular economy and some recycling labels, their knowledge of eco-design, waste management, and upstream measures was limited. A sizable proportion (300 out of 400) of respondents were unfamiliar with the term 'rebound effect' and (229 out of 400) had minimal awareness of India's circular economy policies. Around 307 Respondents identified waste reduction and the use of renewable energy sources as initiatives that have the most positive influence on circular economy and resource efficiency.

The respondents agreed attending workshops and training programmes, can boost their understanding of circular economy and resource efficiency. However, only 71 respondents had participated in such programmes in the last 12 months. Furthermore, most respondents had not come across any sources of knowledge or messaging connected to circular economy and resource efficiency.

It can be concluded that the findings emphasize the importance of increasing the youth's understanding and awareness of circular economy and resource efficiency principles, which may be accomplished through a variety of educational and outreach programmes, such as workshops, seminars, and training sessions. By developing a culture of resource conservation and circularity, such initiatives can assist to construct a more sustainable future.

D. CONCEPTUAL UNDERSTANDING

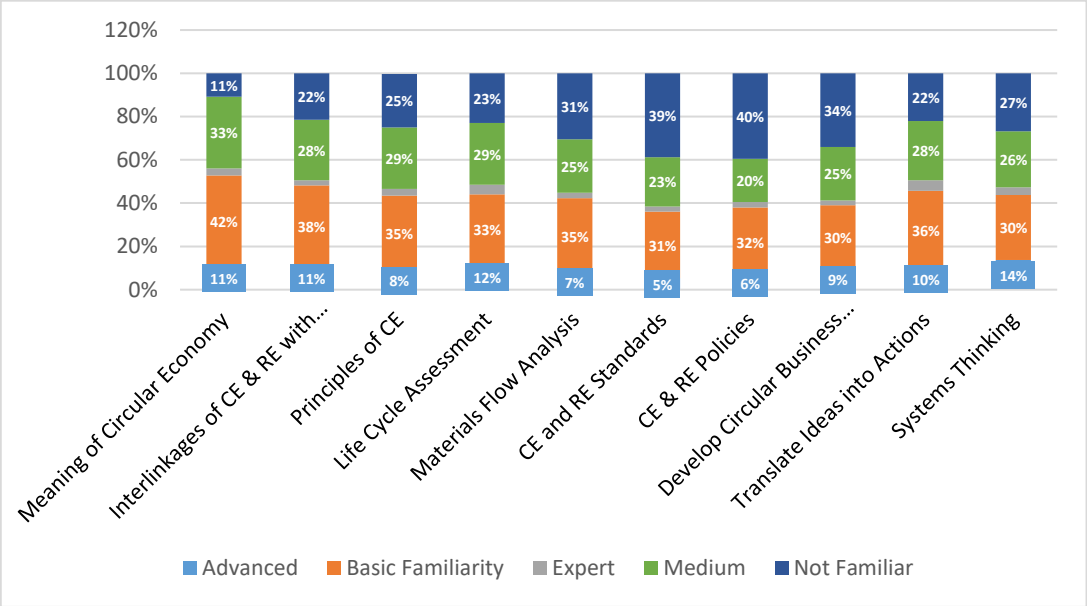

Figure 7: Conceptual understanding

A total of 10 questions were asked to the respondents to determine their degree of comprehension and awareness on Circular Economy and Resource Efficiency.

i. Meaning of Circular Economy: Based on the responses provided, it appears that many of the respondents (42%) have a basic familiarity with the concept of Circular Economy, while only 11% have an advanced understanding and 3% were experts on the topic. Additionally, a significant portion of the respondents (33%) have a medium level of understanding of this concept. However, 11% of respondents are not even familiar with this concept.

This implies that while there is some level of awareness on the concept of Circular Economy, there is still a need for greater understanding and education around the principles, strategies, and tools associated with it.

ii. Interlinkages of CE & RE with Climate Change: According to the responses provided, it appears that a significant proportion of respondents have a basic (38%) and medium (28%) level of familiarity with the interlinkages of Circular Economy (CE) and Resource Efficiency (RE) with climate change. Only a small percentage (11%) have an advanced understanding, and a noticeable percentage (22%) are not familiar with this topic.

It is important to understand how CE, RE, and climate change are interconnected since doing so will help to promote sustainable and low-carbon behaviours. The findings, however, point to a need for more knowledge of how CE and RE might assist in combating climate change and how they are interconnected.

iii. Principle of Circular Economy: As per the responses, it appears that the Principle of Circular Economy is not a concept that is well understood by a significant proportion of the sample.

Specifically, there is a sizable group of respondents (29%) who reported having a medium level of understanding while another 35% reported only having a basic familiarity with the principle. Interestingly, 25% of respondents reported not being familiar with this principle. This suggests that while not everyone is an expert on the topic, there is a significant proportion of people who have at least some knowledge or experience with it. A small but noteworthy group of respondents (8%) reported having a relatively advanced and (3%) expert understanding of the Principle of Circular Economy, indicating that there is some knowledge and interest in this area among the sample.

Overall, this data suggests that while many people are familiar with the principle of circular economy, there is a need and scope for the youth to fully grasp the concept and apply it to real-world situations.

iv. Life Cycle Assessment: According to the survey results, 12% of the respondents have an advanced understanding of Life Cycle Assessment (LCA), 33% have basic familiarity, 5% are experts, 29% have a medium level of understanding, and 23% are not familiar with the concept.

Life cycle assessment is a methodology used to assess the environmental impact of a product or service throughout its entire life cycle, from raw material extraction to disposal. The assessment considers the environmental impact of each stage, including resource use, energy consumption, emissions, and waste generation.

From the analysis, it can be stated that while there is a basic understanding of LCA among the respondents, there is still room for filling knowledge gaps. The respondents' conceptual understanding of LCA suggests a positive attitude towards sustainable practices and environmental responsibility in their decision-making processes.

v. Material Flow Analysis: Based on the survey results, it appears that the majority of respondents have some level of familiarity with Material Flow Analysis (MFA). Roughly 35% of respondents reported having a basic familiarity with MFA, while 25% reported having a medium level of understanding. Only 7% of respondents reported having an advanced understanding of MFA, and just 3% considered themselves experts in the field. But a significant portion of respondents, 31%, reported not being familiar with MFA at all.

MFA is a specialized topic that requires a certain level of understanding to grasp. And the majority of the respondents have some level of familiarity with the topic suggesting that MFA is an important area of study and practice.

vi. CE and RE Standards: The results indicate that a significant proportion of respondents (39%) are not familiar with Circular Economy and Resource Efficiency Standards, while 31% have a basic familiarity with them. Only 5% have an advanced understanding of these concepts, and 3% consider themselves experts. Additionally, 23% of respondents have a medium level of understanding of Circular Economy and Resource Efficiency Standards.

This implies that a significant proportion of respondents have at least a basic familiarity with Circular Economy and Resource Efficiency Standards, as they are key drivers of sustainable development and can help mitigate the impacts of resource depletion and environmental degradation.

vii. CE and RE Policies: Based on the responses, it appears that there is a diverse level of understanding and familiarity with Circular Economy and Resource Efficiency Policies. A significant percentage of the respondents (40%) indicate that they are not familiar with the policies, while 32% have a basic familiarity and 20% have a medium level of understanding. Only 6% of the respondents have an advanced level of understanding, while 3% consider themselves experts in this area.

The respondents' understanding of Circular Economy and Resource Efficiency Policies varies greatly, with a significant proportion having limited or no familiarity with the policies. However, many individuals with a basic or medium level of familiarity indicate that these policies are gaining traction and could become more widely adopted in the future.

viii. Develop Circular Business Models: The data provided shows that a majority of the respondents (34%) are not familiar with the concept of developing circular business models. Approximately one-third (30%) have a basic familiarity with the concept, while 25% have a medium level of understanding. Around 9% have an advanced understanding of developing circular business models, and only 2% are experts on it.

Developing circular business models refers to the process of designing and implementing business strategies that prioritize sustainability and promote circularity. This involves rethinking traditional linear business models that follow a "take-make-waste" approach and instead adopting circular models that involve the reuse, repair, and recycling of materials.

Respondents have varying degrees of knowledge of the notion of establishing circular business models, with the majority having some level of comprehension. The data suggests that there is still significant work to be done in terms of educating the youth about the benefits of circular business models, as well as guiding how to develop and implement them effectively.

ix. Translate Ideas into Actions: The analysis of the respondents reveals that 36% have at least a basic familiarity and 28% have a moderate level of proficiency with the concept of translating ideas into action whereas, a sizeable proportion of the respondents (22%) reported not being familiar with this concept at all. In terms of proficiency levels, only 5% of the respondents identified as experts in translating ideas into action, while 10% were identified as advanced. Even though there are differences in the respondents' levels of knowledge, it is important to note that translating ideas into action is a crucial ability. It involves taking abstract or conceptual ideas and turning them into tangible, concrete outcomes through a series of deliberate steps.

x. Systems Thinking: A significant percentage of respondents have a basic familiarity (30%) and a medium level of understanding (26%) with the concept of Systems Thinking. A chunk of respondents are not familiar with the concept (27%), and only a small percentage consider themselves experts (4%) or advanced (14%) in this area. In the context of circular economy, systems thinking is critical for understanding the interconnections between various elements in the economy and how they impact each other. The analysis reveals that the respondents have different conceptual understandings of systems thinking.

E. CE & RE ACTIONS AROUND YOUTH

i. Are you familiar with any initiatives or solutions in your institute/neighbourhood/city on circular economy undertaken by youth?

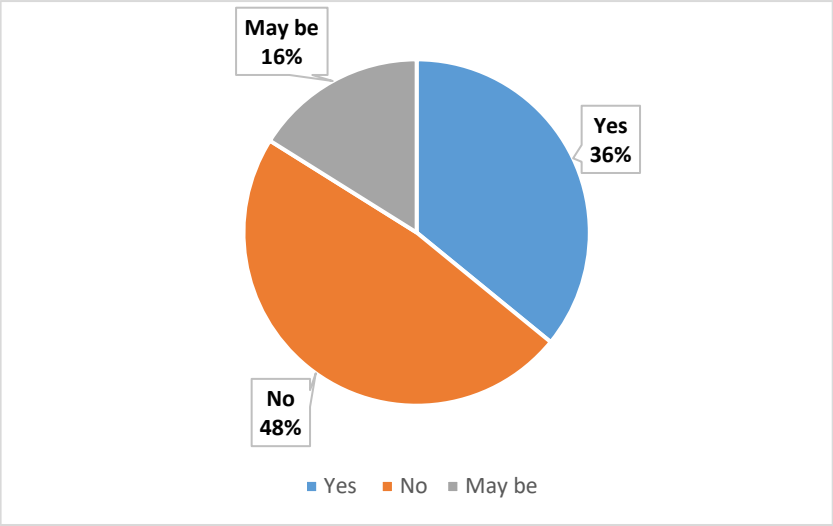

Figure 8: Initiatives on Circular Economy undertaken by youth

According to the analysis, it can be deduced that the majority of respondents (48%) are not aware of any initiative or solutions linked to circular economy implemented by youth in their university, neighbourhood, or city. On the other hand, 35.9% of respondents said they were aware of such initiatives or solutions, indicating that a significant portion is actively engaged with or aware of efforts related to circular economy. There is also a smaller group of respondents (16.1%) who indicated that they may or may not be familiar with such activities or solutions being undertaken by the youth around them.

This shows that while some efforts are being made by the youth to promote a circular economy, there might be a need for increased understanding and information transmission regarding circular economy, as well as the role that young people may play in promoting it.

ii. Are you familiar with any local initiatives or solutions on circular economy undertaken by the government?

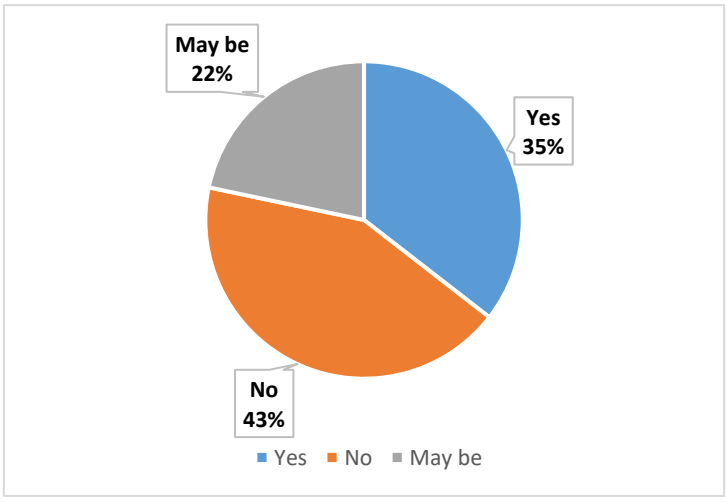

Figure 9: Initiatives on Circular Economy undertaken by Government

According to the survey, most of the respondents (42.8%) either do not know or are uncertain (21.7%) about any local activities or solutions on circular economy being implemented by the government. However, it is important to note that a good percentage of respondents (35.5%) said that they are familiar with such initiatives. This might be a good indicator for the future of circular economy efforts, indicating that there is a foundation of support for such policies and programmes.

F. YOUTH CONCERNS

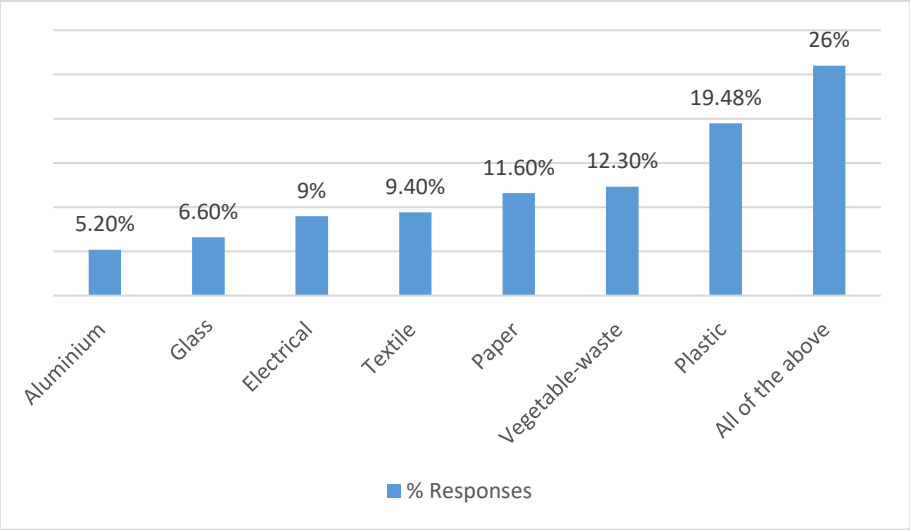

Figure 10: Youth concern on waste streams

Based on the given data, the concerns of youth regarding waste stream are varied. For about 19.48% of the respondents the use of Plastic seems to be of significant concern followed by Vegetable waste (12.3%). Around 11.6% youth is also concerned about Paper waste, followed by Textile (9.4%) and Electrical (9%) waste.

The concerns presented by the youth are valid as unattended waste streams may have detrimental effects on the environment, such as pollution, greenhouse gas emissions, and the depletion of natural resources. The youth recognize the significance of circular economy in limiting the negative consequences of the waste stream. With the knowledge and skills of circular economy and resource efficiency principles, an individual can promote the sustainable use of resources, reducing waste, and extending the life of products and materials.

G. YOUTH ASPIRATION TO LEARN CE & RE

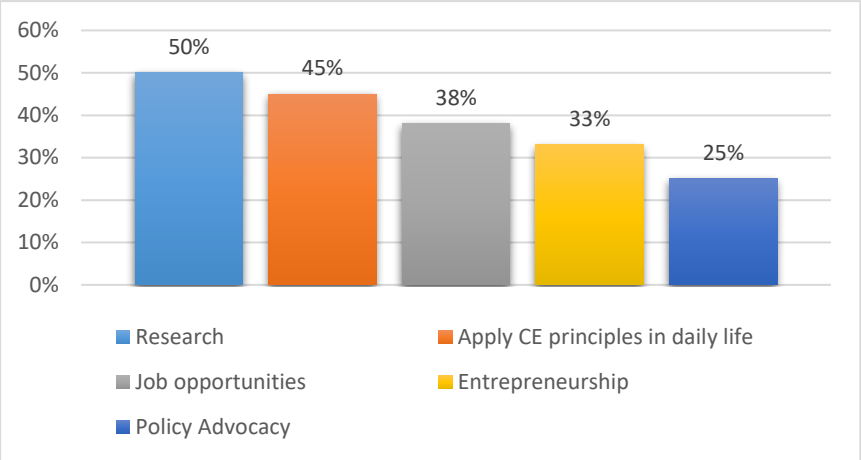

Figure 11: Youth aspirations to learn Circular Economy & Resource Efficiency

With the available data gathered from the survey, it can be summarised that 50% of the sample aspires to research on Circular Economy & Resource Efficiency. This demonstrates a significant desire among the youth to learn about the principles of sustainable practices and environmental responsibility.

Another interesting finding is that a sizable proportion of respondents (45%) want to adopt circular economy principles in their lifestyle and into their daily routines. This highlights the growing interest among the young generation to lead a more sustainable future.

The data suggests that Job opportunities is also ranked highly as around 38% of the respondents expressed that they want to pursue careers in Circular Economy and Resource Efficiency. This emphasizes the importance of these concepts in the job market, as the younger generation is aware of the growing demand for sustainability professionals in the workforce and sustainability-related careers.

A well-liked popular option among respondents was entrepreneurship, with 33% indicating an interest to start their own businesses related to circular economy and resource efficiency. This implies that the youths are not just into sustainability as a professional route, but also are interested in being entrepreneurs by creatively finding solutions to environmental problems.

Finally, 25% of young people want to be involved in policy advocacy for circular economy and resource efficiency. They are willing to participate in the development of policies that promote sustainability and protecting the environment.

CONCLUSION

The study report on Youth Empowerment towards Circular Economy and Resource Efficiency concludes the positive perception of Indian youth towards sustainability however, there is a need to provide them with the necessary knowledge and tools to effectively implement circular economy practices. IYCN and EU-REI – II's initiative to promote awareness and educate the youth about circular economy and resource efficiency is a great step towards enabling youth to contribute to sustainability. This initiative will help to develop a pool of young professionals capable of making informed decisions and take effective actions towards a sustainable future. Overall, the survey report emphasizes the importance of collective action by the government, private sector, and civil society towards a circular and sustainable economy and the youth's role in achieving this goal.