

TITLE: INNOVATIVE TECHNOLOGY AND SUSTAINABILITY

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ABSTRACT ;

In this research paper we have mentioned how important and effective technologies are for a sustainable business. Innovative sustainable technologies have a great impact on businesses and benefit them in the best ways. Our findings show the projects carried out by certain cities for a sustainable future as well as the challenges faced while doing so. A proper data analysis and survey was undertaken for the following .

KEYWORDS ;

- **Sustainable**
- **Technology**
- **Safe resilient**
- **Zero- carbon**

INTRODUCTION ;

Our planet is facing a climate emergency which if we don't tackle it immediately threatens every aspect of our life. We believe it is the number one challenge the world is facing at this period and the implication could dwarf those of the coronavirus pandemic. It has never been more urgent to create a more sustainable future for everyone instead of exploiting our planet. We need to look after it.

It is believed that technology and tech companies have a major role in the path of a more sustainable future. Even in the conferences conducted by the MOBILE WORLD CONGRESS in SHANGHAI 2021 sustainability and technology was a major part of their agenda. The tech giants have taken many successful steps and it is good to see them taking sustainability as a very

serious topic by improving their product and production processes towards a carbon-free future. This company also plays a significant role in innovating technology that will help in tackling the sustainability challenge

The digitization and electrification of our world in conjunction with the production of zero-carbon energy is a major step in the right direction and for this to happen we need the right technology and infrastructure in place. So the below research is based on innovative technology and the awareness among the people about sustainability.

LITERATURE REVIEW :

Karel Mulder , Didad Ferrer and Harro van Lente (2011) their research says- "That more efficient technologies might boost consumption and thereby contribute to resource depletion instead of saving resources."

Tahani Al Hammadi , Haitham Nobanee (December 2019) according to their search "Studies ensured that banks that applied fintech innovation have saved significant cost and provide flexible financial services for all sectors."

Marco Vacchi, Cristina Siligardi, Fabio Demaria, Erika Iveth Cedillo-González, Rocío González-Sánchez , Davide Settembre-Blundo (2021) According to their article, "Together, technology and sustainability enable companies to achieve higher earnings, reach new markets, expand their customer base, and increase their margins. However, for this to happen, firms need to embed technology and sustainability within their strategies and corporate culture."

Yinlun Huang (2021) According to his findings "Technology determines, to a great extent, the demand for raw materials and energy, the ways and efficiency of manufacturing, product performance, waste reduction and waste handling, health and safety, transportation and infrastructure, etc., thereby making significant impacts on the economic, environmental, and social dimensions of industrial development."

Ondrej Stopka, Vladislav Zitricky, Borna Abramovic, Marin Marinov, and Stefano Ricci(2019) Their Article says - Technological premise creates the prerequisites for organizing, operating, and managing traffic and transport with as little negative environmental impacts as possible and helps to create a system of sustainable mobility.

OBJECTIVES:

To know about the innovative sustainable technologies

To understand the different city projects undertaken to make the city more sustainable

To see the awareness among the people for the concept of sustainability
To understand the challenges faced in the path of a sustainable future

RESEARCH METHODOLOGY:

The research is primarily based on youtube information, google search
And the survey data.

DATA ANALYSIS AND FINDINGS :

INNOVATIVE PROJECTS CARRIED BY DIFFERENT CITIES TO BUILD A SUSTAINABLE FUTURE

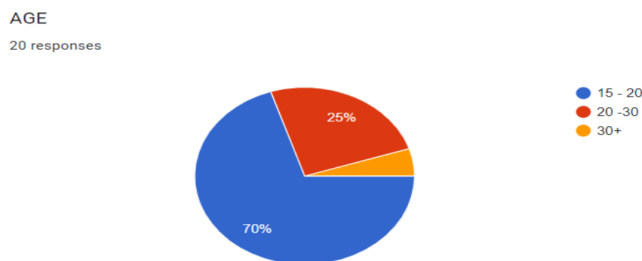
Innovative projects making cities more sustainable with an ever-increasing global population and rising urbanization creating Safe resilient and sustainable cities are written on top of the green agenda. The United Nations included this mission among 17 sustainable development goals which together form a blueprint for collectively addressing the challenges the world faces here are some of the innovative ways cities are rising to the challenge.

- **The 20-minute Neighbourhood** imagine if everything you need for a happy healthy life can be found within a 20 minutes public transport trip like bike ride or walk from home. Some cities are working to make this a reality with Melbourne leading the way. It wants residents to always be within easy reach of things like shops, business services, education, and leisure facilities.
- **Smarter commuting** in Israel A new app could hold the key to creating faster, cleaner and more convenient commutes. Users enter their location and destination and an algorithm calculates the most efficient journey. The Public transport is then rerouted accordingly. The system was introduced to help fight COVID-19 but if implemented permanently it thought it could Save \$25 million dollars a year
- **Vertical forests** are short on space people in cities have often look upwards for places to expand in Milan, Italy architects have done the same with tree cover creating a vertical forest on two residential tower blocks boosting 800 trees 4500 shrubs and 15,000 plants the forest recover an area the size of 3 1/2 of football pictures if planted on the ground similar projects are underway in cities in Switzerland the Netherlands and China

CHALLENGES FACED IN DEVELOPING A SUSTAINABLE ENVIRONMENT

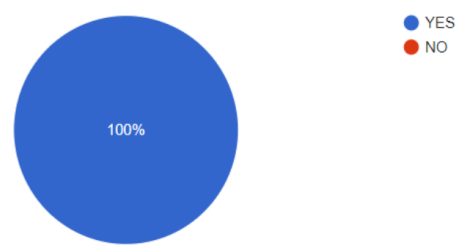
1. **LACK OF FUNDS:** Lack of financial resources to carry out and plan sustainable development
2. **WEAK COUNTRIES:** Sustainable development is often not possible in financially weak countries as there are other priorities on hand.
3. **NATURAL CALAMITIES:** Natural occurrences, such as earthquakes and tsunamis, can pose a threat to sustainability as they can shift the flow of water and destroy certain elements of infrastructure.
4. **GOVERNMENT CONFLICTS:** The governmental conflict between immediate profit and investment toward sustainable technologies. (In Poland, the government has even increased financing towards the mining sector instead of moving full steam ahead towards adopting sustainable energy sources, with coal amounting to 80% of total energy generation)
5. **CORRUPTION:** (Funding to developing countries is usually provided through foreign grants, eg; In Nepal, foreign grants constitute the majority coming from the UK. Nevertheless, due to bureaucracy and corruption in Nepal, in order to pass certain development projects a stipend needs to be paid to ministers as well as service fees to the Nepal government which significantly slows down the processes)

SURVEY DATA :



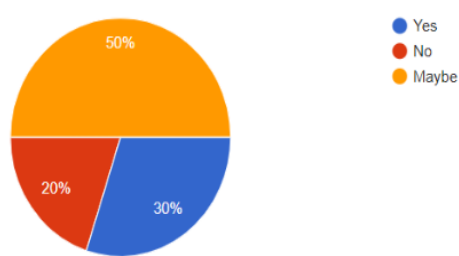
ARE YOU AWARE ABOUT THE CONCEPT OF SUSTAINABLE TECHNOLOGY

20 responses



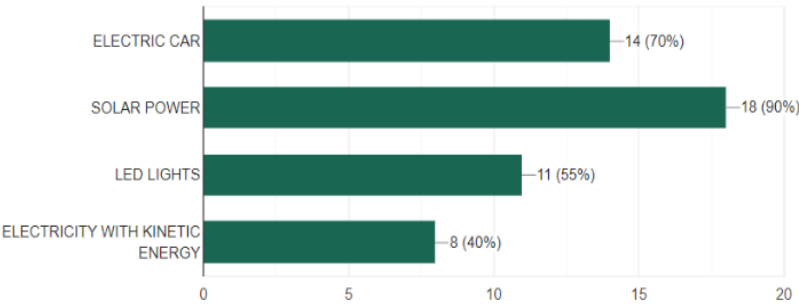
IS COST A BARRIER TO A SUSTAINABLE FUTURE

20 responses



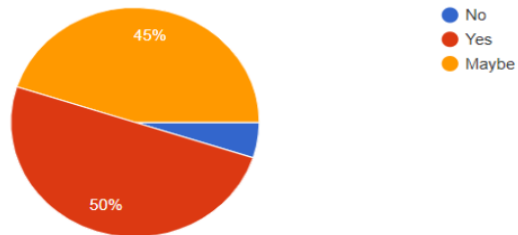
WHAT ARE THE SUSTAINABLE TECHNOLOGIES YOU ARE AWARE OF

20 responses



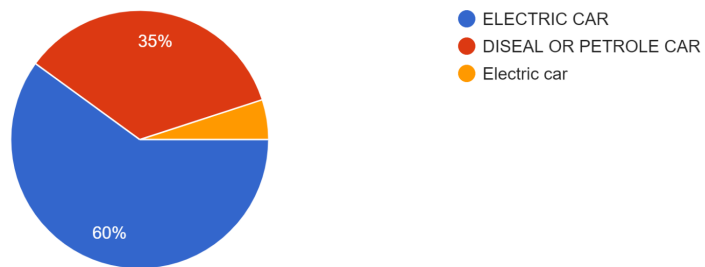
would you like to own any of the sustainable technology in future

20 responses



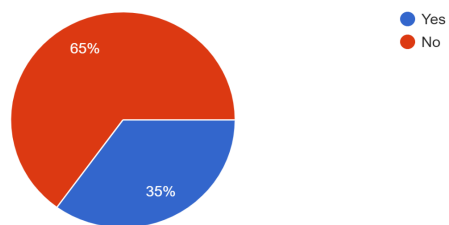
what will you prefer an electric car or a diesel car

20 responses



DO YOU USE ANY OF THE SUSTAINABLE TECHNOLOGY IN YOUR DAILY LIFE Eg: electric car, solar power, etc

20 responses



CAN YOU GIVE AN EXAMPLE OF A SUSTAINABLE TECHNOLOGY 8 responses

1. Solar power
2. Electricity generated through foot steps
3. Public and electric transport
4. Led lights
5. Electric car
6. LED light technology.
7. Solar power in Villas
8. ELECTRIC AUTOMOBILES

REASON why you would like to own a diesel or electric car

17 responses

1. Because it won't cause pollution
2. Right now petro but further it will be out electric
3. It is easy to move
4. Affordable
5. To best the pollution
6. Less pollution and no sound
7. Saves money
8. Diesel cars are love ❤️
9. Need the thrill
10. As electricity can be generated but fuel can't be used for a longer time
11. Electric vehicles are more efficient, and charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.
12. It's easier to control
13. Less energy consumption
14. It is more common and hassle-free
15. BECAUSE OF THE USAGE
16. Environment friendly

17. In Indian conditions, we couldn't travel in electrical vehicles due to the unavailability of Charging stations which makes electric cars useless for long-distance drives

RECOMMENDATION:

As per our research and analysis, we came to know that cost, infrastructure, awareness, and corruption are the main barrier to a sustainable future.

We also noticed that many countries are skilfully talking this situation and have also successfully implemented many technologies that are eco friendly

And our recommendation is that the dream of a sustainable environment is possible only if the authorities take this as a priority and work on it as soon as possible and it is not alone the responsibility of the government authorities we as a responsible citizens can also contribute to lowering our carbon footprints by taking some small and general efforts like carpooling, using public transport, using solar energy, etc.

CONCLUSION;

After all the research and analysis we came to the conclusion that the dream of a carbon-free future is difficult but not impossible a little effort from each one of us will help to fill the potholes in the path of sustainability because this effort is not an option it is a responsibility which we have to take up because we don't have a planet2. And it was also good to see many new sustainable technologies that are rapidly emerging by replacing the traditional non-eco-friendly technology this gives hope that though it might be difficult but soon we 'll have a green environment

REFERENCES :

Article by international young nature friends

YOUTUBE VIDEOS

Survey

