

THINK · ADOPT · ADAPT

Sustainability Article Writing Competition for Colleges Aligned with



Initiative Report & Compilation of the Most Insightful Articles



About Green Vision

2019 to engage with young adults from schools and youth at the university level to engage them on environmental issues in a meaningful manner. **'Green Vision for Colleges – Think . Adopt . Adapt'** resonates with our objective to sensitize and orient the youth at the university level so that they can go beyond academics to delve into sustainability challenges and develop problem-solving sensibilities.

This article writing competition aimed to encourage young minds to think and brainstorm on sustainability topics that impact them the most and are intricately linked with the **United Nation's Sustainable Development Goals as stated in the 2030 Agenda for Sustainable Development**.



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Our Motivation & Endeavour

In this age of excessive consumption and skewed distribution across the globe, adopting a sustainability centric approach is our only salvation. Recognizing the need for promoting prosperity for all while protecting the planet, the United Nations has come up with a list of Sustainable Development Goals as the blueprint to achieve a better and more sustainable future for all.

With a view to create discourse around sustainability, Envecologic is constantly seeking to engage with the youth, as we recognize that innovative ideas from these sharp young minds need to be given a platform to express their opinions and thoughts. With this perspective, some of our key initiatives in the recent times have been aimed at increasing youth participation and discourse. Some of our endeavours include partnering with TERI School of Advanced Studies for Climate Jamboree 2018, nurturing a growing team of youth sustainability ambassadors across colleges in India, and organizing Green Vision 2019 for school kids, which is an essay writing competition on SDGs.



Topics & Their Relevance





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Best Articles



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Shruti Sadual (1st Prize)

Turning Garbage Nation Into A Sustainable Nation

"In the world of 21st century, where some cities never sleep and go on shimmering with bright city-lights, the increasing mounds of waste often go unnoticed as the pretentious planet goes on catering to the needs the ignorant imbecile fools. A day might come when an asteroid won't be needed to cause the Sixth Extinction. The world would collapse under its own weight of filth. I chose this topic to remind those people that it is our own conscious decisions that can save us from the looming danger. It might seem trivial right now. But the coming years would be harsh if the problem isn't tackled soon enough."

T he smell of piss, cow-dung and naked children running down the narrow alley, passing rickety, tipsy habitations is a scene that would describe a slum in the heart of India. Why India? Why does the picture of a slum always portray a place that features something deep rooted in the Indian sub-continent? When someone describes a slum, people usually picture brown women carrying wailing, filthy babes at their breast who ignore the cries and go on about their wonted chores. Has the thought of a similar situation with a white person crossed anybody's mind? I highly doubt that.

India may be rich with cultural heritages and glorious pasts, with Kings and Queens ruling over this vast nation, but let's not forget the present where slums like Dharavi exist in the heart of one of the highly developed cities of India – Mumbai. The glimpses of *Slumdog Millionaire* may flash before our eyes when Dharavi is mentioned. One might think- Are they a liability to our nation? Do they represent us in poor light? Contrary to that, it is the largest recycling plant of India. With over 1.3 billion people residing in this country, the amount of garbage produced per year exceeds well over 62 million tonnes. How much of this garbage is recycled and reused by the Municipal Corporation? Do we ever use a material to its full potential? The Government of India isn't ruled by Indian mothers who have the ability to squeeze out every ounce of adequacy of a particular material before branding it useless.

In the advanced nations, recycling is a way to protect the Earth and its resources from a building mound of filth. But for poor people residing in Dharavi and other slums alike in the developing world, they are a means to their livelihood. In this small area of Mumbai's sprawling slum, hidden amid the labyrinth of dilapidated huts and squalid open sewers are an estimated 15000 single room factories, employing around a quarter of a million people and turning over a staggering \$US 1 billion. Starting from metal scraps to broken radio and TV sets, from used papers and newspapers to broken slippers and shoes, from ragged clothes to kitchen waste, from cycle parts to refrigerator tubes, not a single item goes waste in Dharavi. Everything is put to use somehow or the other. With a little more effort and help from the Government, our nation can follow in the footsteps of the



Scandinavian country of Sweden, who imports waste from other European nations, just because it ran out of waste in its own country. The Swedish are so coherent in managing their garbage that their waste-to-energy factories are powering up about 20% of the entire country's district heating. In fact, the European nations are paying them to import trash from their landfills. Sweden's waste management and recycling programs are second to none as only 4% of the nation's waste ends up in landfills.

The Constitution of India has borrowed from several other constitutions across the globe to produce a nearly perfect Rule Book for our country. Similarly, our leaders can borrow the innovative ideas of sustainability from other nations to tackle the growing crisis of managing the landfills in our nation. UK has over 50 community fridges, an innovative solution to address food wastage. Restaurants,

"Imagine how much garbage can turn into gold if India uses such ideas and technology."

supermarkets and home cooks across UK donate their excess food to the community fridges. In the first three months, they shared a whooping 21000 kg of food. Winnow Solutions has created a smart Trash-Can that tells you off for wasting food. It uses AI to identify scraps of food by taking photos of what you throw away. The bin also weighs different types of food before adding up the cost and telling you how much money has been wasted. Tossing away edible food doesn't just waste money. It changes climate too. One might wonder about the relationship between food wastage and the growing turmoil in climate change. Think again. The edible food that is thrown away goes to landfills where it rots and produces methane gas, which is the second most common greenhouse gas. To combat the same problem, the city of Jinan in China, instead of sending the food waste to landfills, is using common house pests like cockroaches in billions who eat 50 tonnes of kitchen waste every day.

As China's expanding cities generate more waste, many plants like this are popping up. In Karachi, animal dung is used to power public transport buses. In Surabaya, Indonesia, people can buy bus tickets in exchange of plastic bottles. It kills two birds with one stone. This scheme encourages more people to use public transport while reducing plastic waste. Beijing, Istanbul and Sydney have similar models.

Imagine how much garbage can turn into gold if India uses such ideas and technology. Garbage is an output that can be converted to valuable input if used wisely. Our nation is getting choked under the stinking, growing rubble of landfills. It is barely keeping its head over the increasing mass of junk. It is high time we put our Indian brains together to think out a feasible solution. The future is not far when the ghosts of our past come knocking on our doors.



Role of Youth In Combating Climate Change

"Climate change is undoubtedly the most critical problem that humanity is facing. Some serious steps are required to be taken immediately. It is not that this problem cannot be solved. The main reason I choose this topic is to aware people who do not consider the problem of climate change as a problem and highlight the role that youth can play to avoid this crisis."

"There is one issue that will define the contours of this century more dramatically than any other and that is the urgent threat of a changing climate". – Barack Obama

When we intake more calories than required and not burn them, we become overweight. Same is the case with Climate change, when the amount of greenhouse gases in the Earth's atmosphere is more than normal, they absorb more percentage of heat coming from Sun and radiate comparatively less to the outer space. As a result, Earth experiences a rise in overall temperature which leads to extreme changes in the climatic conditions. This is called climate change.



In this generation, our youth is most literate and aware in comparison to previous generations to tackle the issues of climate change. Youth literacy rate has increased from 83 to 91% over the past two decades. They understand the seriousness and importance of this issue and are also coming up with interesting solutions. As per the World Programme on Youth (WPAY), youth participation and involvement in environment preservation requires a comprehensive approach. Youth is ready to engage in platforms related to the conservation of environment at the local, national and international level and prove to be an asset in this battle. We should be happy about the fact that more than half of the world population is young (below 30 years of age) and now we need to make sure that they are given the right environment so that they can act as the torchbearers for the people of this world and make the future better.

The youth is really innovative and if they have support from the authorities, there is no doubt that they can make huge impact in battle.

Here, I would like to talk about a fifteen-year-old Swedish girl, Greta Thunberg. She was very concerned about climate change and thought that an immediate action is required.

So, she decided to go on strike every Friday from August, 2018 in front of Parliament House to urge the ministers and other people to stop exploiting natural resources and adopt alternatives to reduce carbon emission. Soon she was joined by other students and people and the i mpact of her efforts was so huge that she was asked to give a speech at COP 24 (UNFCCC) in December, 2018 and on 15 March, 2019 there was a strike in 2000 cities across 100 countries.

Liliana, a young biologist from Quito, Ecuador, received the United Nations Environment Programme (UNEP) Young Champions of the Earth Award (2017) for restoring the flora and fauna that was disappearing from her country. She found some native plant species that can simultaneously adapt to urban environments and are unaffected by climate change. She was able to reduce air pollution and frequency of natural disasters by promoting greater use of native plants in the urban households.

In The Bahamas, when hurricane destroyed the sand dunes in 2005, the students of Town Primary School encouraged the community to plant sea oats, a kind of dune grass. So, when the next hurricane hit in 2011, the roots held the dunes in place and the hurricane proved to be less destructive.

In Barbados, students of Lester Vaughan Secondary School have made more than 3,000 litres of biodiesel by collecting used vegetable oil from people in their community.

In Bameda City, Cameroon, there is a project, Youth-led Climate Change Adaptation and Mitigation for Sustainable Urban Development, which helps youth to make money and simultaneously reduce the demand of wood fuel. This project aims to produce energy efficient cookers out of scrap metal. It also involves recruiting and training of youth to collect waste which is then used in making cooking devices.

In India, there are several youth lead initiatives that are tackling the issue of climate change. For example, Chakr innovations is a New Delhi based start-up which aims at reducing air pollution in Delhi. Almost 28% of the air pollution in Delhi is due to diesel generators, so they have developed a smoke-bleaching machine that captures up to 90% of smog and air pollutants and converts them into ink. Selco India is a company that offers solar-powered lanterns, lights, micro grids and stoves to rural citizens so as to build sustainable sources of energy to decrease pollution. Let's Recycle is a start-up that identifies waste generation and collection patterns in Gujarat and accompanies the ragpickers into the formal economy while emphasizing on recycling. They use technology to map waste generation across Ahmedabad and focus on recycling efficiently.

In the 'zero-waste movement' there is huge increase in number of young people that have pledged to create minimal waste. This had started with an online group of few hundred on social media but now it's a community of around sixteen thousand members who have pledged to avoid waste creation and landfill emissions. Ridhima Pandey, a 9-year old girl from Uttarakhand filed a case Under the National Green Tribunal Act, 2010 arguing that the Indian government has failed to take strong and effective scientific actions in order to minimize the adverse impacts of climate change. She also highlighted the non-enforcement of Forest Conservation Act (1980), Environment Protection Act (1986), etc.

United Nations Joint Framework Initiative on Children, Youth and Climate Change (JFI), is a step taken by UN to work with the youth-led and youth-focused organisations around the globe to eradicate climate change. Since 2008, the secretariat of UNFCCC collaborated

with 16 intergovernmental entities and many youth organizations to empower youth to act on climate change and enhance their climate change policy decision-making processes. Also, in September, 2016 a class of seventeen young leaders was announced having vouth leaders from different backgrounds, sectors and regions and they are selected on the basis of their efforts to end poverty, reduce inequalities and combat climate change. YouthMobile was a

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project which aimed to empower 25,000 young people (especially women) across the globe with high-level skills so as to develop, sell and promote at least 5,000 locally relevant mobile applications that solve the local issues of sustainable development and provide self-generated, viable employment opportunities in the mobile industry.

The youth in developed nations have more resources and more power than the youth in developing countries like India. There, efforts from the young people are encouraged by the governments and other organisations and authorities which help them to achieve their desired goals. The developing nations are more concerned with economic growth and for this they are still relying on the conventional forms of production and power/energy generation. These nations have sidelined the issue of climate change to some extent so as to focus more on economic growth and tend to forget that they need sustainable growth to take the two together. To achieve this objective, the young population can do wonders if they are provided with all the resources and support that they need. The governments also need to encourage research in this area so that our young population can come up with interesting solutions and assist the authorities in this battle and help the world come out of this crisis to some extent.

It is clear that youth is actually taking measures to solve the issue of climate change. They have revolutionised the fight against climate change with their skills and innovative ideas. Now, it is the duty of government and various national and international organisations to provide them with necessary resources and support them wherever needed.

Climate change is not just an issue, it is a crisis. We are in the middle of a crisis and Kristalina Georgieva, the CEO of the World Bank has rightly said, "We are clearly the last generation that can change the course of climate change, but we are also the first generation with its consequences".

Rhea Chhabra

(3rd Prize)

Stitching a Green Scarf: Making Fashion More Sustainable

"Sustainability is a necessity more than an option. In the course of more than thirty years since it came into existence, it has been introduced into various aspects, adapting while remaining true to its principles. However, with fashion, even today, the association with is not perceived immediately. This article intends to make one contemplate and understand this association, creating consciousness and awareness and also providing with approaches at all levels, be it on a personal level or at a large scale to make this a reality."

The term 'sustainable development' was coined in 1987 by the U.N. World Commission on Environment and Development within the report 'Our Common Future' also titled Brundtland Report. It basically means development that meets the needs of the people of the present without compromising the ability of future generations to meet their own needs. In its course of nearly thirty years since coming into existence, sustainability has adapted and evolved and now is just not only associated with development. Its core principle remains the same with certain additions that is ensuring efficient utilization and protection of today's resources and their preservation for the future generations to sustain.

Since sustainability has been introduced, it's influencing various aspects like lifestyle, food, art and architecture. In terms of sustainable lifestyle, people are introducing more organic approaches and applications into their lifestyle without deteriorating their quality of life. For a person, after oxygen, there are three basic needs which are food, clothing and shelter. Sustainability can be associated easily in two aspects out of the three.

With food, people are opting to be vegan, consume organic products or natural products grown without pesticides. While with shelter, people are growing more conscious and going towards green architecture with the use of low emissions paints, earth friendly building materials, technologies, solar panels and zero energy, zero carbon emissions buildings. When it comes to clothing though, sustainability hasn't gained much momentum when compared to the other two aspects. People don't often associate sustainability with clothing. Nobody talks about the quality of the clothing, use of organic materials, custom-made to avoid waste. Everyone is used to the same mass produced clothing which are readily found, be it on the streets, high end stores or the big box stores.

This term 'mass produced' was coined during the industrial revolution and sown by Eli Whitney with mass produced weapons but was grown and popularized in the 1920s by Henry Ford when he created the first assembly line to assemble and mass produce cars to make it affordable for all.

Mass production also crept into clothing industry and with this, ready-to-wear clothing was coined. This first started with the men's branch with slop shops and later, when during civil war, there was a high demand of uniforms, manufacturers began producing clothing in large quantities with universal standard set of sizes. During this same time frame, mass production was introduced in the women's branch and further enhanced with the use of sewing machines. This made clothing affordable for all.

Mass production was then a need, but it hasn't changed till now since people have gotten

used to it and stuck in their ways. Also, which consumers won't be happy if they get good quality clothing at low prices and what manufacturer won't be happy if they get to sell their clothes at a profit. This rigidity and mindset has resulted in sustainability not being able to make much impact on the clothing industry. Fashion is not just about clothing, glamour and profits, it has a much deeper meaning than that.

"Sustainability and fashion may be different realms but need to coexist together...This begins with consciousness and awareness." Like alphabets and expressions define a language, fashion helps one to communicate. It's a communication to portray and reflect one's unique sense of style which sets them apart, a language in itself. Fashion industry is a vast growing industry with high potential which hasn't been tapped into since it needs to be recognized that it in itself is a vision, a way to express.

When one thinks of fashion, one thinks of style, trends, clothing and glamour, but the word sustainability doesn't pop into one's mind.

Those associated with fashion aren't very conscious towards the environment, even with trends they're mostly short lived and it just results in accumulation of clothes, season after season, which most people don't repeat. To understand the gravitas of the situation, if one accumulates all the clothes that are not worn by people, the clothes would result in a huge pile or a mountain which may give Himalayas or Aravallis a run for their money. This consciousness is not one way, it's a two-way street, it's those who make it and those who wear it, which essentially includes the maker and the consumer. This needs to be tackled with different approaches for both the forefronts. Sustainability and fashion may be different realms but need to coexist together and a certain kind of influence of sustainability has to be introduced into fashion. This begins with consciousness and awareness.

There are various strategies adopted to make fashion greener. On the designer front, it is in creating garments with timeless style, high quality conceived out of environmental friendly or earth friendly materials eliminating the use of synthetic materials which may contain toxic fumes or substances whilst promoting use of natural materials or organic materials grown with low or minimal use of pesticides, as pesticides can cause harm to those in contact, natural resources like water bodies, soil, flora and fauna.

While on the consumer front it involves how one can use the same clothes for longevity and adapt it to different trends while maintaining the quality of the clothing. If the clothing is undesired, it may be repurposed or donated to prolong its active life. Also another strategy that comes into play is what happens to the clothing after it is deemed futile; one thing that can be done is that the material or buttons may be recycled. This essentially is the life cycle of a fabric which is made into clothing but it has a highly efficient long life.

This sounds very convincing on paper but the real challenge lies with the implementation of such ideologies. This outlook is slowly gaining momentum but is rather slow as it is not same for all as everyone is unique and has their own set of requirements and preferences. To hasten the growth, this needs to start at an individual level, which begins with awareness and consciousness as to why is it necessary and essential to adapt their styles, and what ways one can contribute to this movement without losing their sense of identity in terms of fashion or how one can introduce sustainability in their own sense of Style.

This can be done in small changes or additions that can result in a huge difference. For the common man and women, who have a daily routine and can't afford to shed a lot of money can also contribute to this movement with the help of high quality capsule wardrobe which basically means high quality essential clothing staples which never go out of style, and buying high quality clothing which results in better cost per wear, which means number of times a clothing can be worn divided by the actual cost, the longer the time the clothing can be worn, more value for money it is.



Since our current generation is of the digital era, social media also plays a massive role in influencing the young minds. More and more people are joining social media every day, and this digital presence has allowed people to express and stay connected, irrespective of time and space. This is a major part of the fashion industry also, with social media influencers making a living out of it, endorsing their styles, brands. This at times results in a negative impact since it results in unnecessary accumulation of clothes at times due to influence of so called hauls.

This same approach can be used to turn tables. It is basic human psychology for people to admire people and stay in touch with each other, and this basic common

knowledge enhanced and distributed by social media can result in highly positive impact and awareness towards sustainable design. If those we admire, be it anyone – celebrities, social media influencers, or people around us themselves believe and introduce sustainable fashion and traditional handlooms to their audiences and followers, it would make a big difference and give the much-needed momentum it requires. It not only helps us bring awareness but also personify and embrace our culture.

Sustainability is highly adaptive and can be adopted in all aspects. All that is needed is consciousness and awareness to believe in it, practice what one preaches and the will and desire to execute into translating this from theory, on paper to a reality.



Ramsha Naushad

(Special Mention)

India's Economic Growth vs. Environmental Debate

"My article compares economic development with arising environmental issues. I chose this topic because I found it relatable. Travelling daily via Magenta line of Delhi Metro, I cross *Kalindi Ghati* of river Yamuna. The pollution and foaming is clearly observable but everyone is so busy in their phones that barely anyone notices. In the name of development, we are inside metro but how can we ignore the outside scene? My sole aim of this article is to give readers a questioning and inquisitive mind to analyse everything that happens in the name of development. Sustainability is a lifestyle which I would like to promote."

It's a stage show, and the whole world is its audience. Every country is coming up with their success tags. India's turn comes up; a huge round of applause is heard when Ministry of Statistics and Programme Implementation announces that India is the world's fastest growing economy with a GDP (Gross Domestic Product) growth of 7%. A moment later an awkward silence was witnessed as WHO (World Health Organization) declared that eleven out of 12 the most polluted cities in the world are in India. Was that silence a matter of concern and shame? Or was it negligence by authorities and people.

Primary schools teach us a noteworthy and a lifesaving concept. The concept of sustainable development; described by the Bruntland Commission Report, 1987. It says "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." How far and to what extent did we apply this idea? Rather than applying it as a lifestyle ideology, we remain blind to the garbage around, effluents flowing in water, dust and smog in air and injudicious use of natural resources. The features of sustainable development include traits like sustained rise in per capita income (PCI) worldwide, pollution checks, rational usage of resources, population control, and controlled dependence on non-renewable sources of energy to meet future generations' needs. The economic development of any nation and environment are dependent on each other. From basic building blocks on land to natural resources as inputs, we directly or indirectly depend on environmental resources. When it comes to dumping our wastes and emissions, the same condition applies here. Such selfish acts of environment affect it and cause problems like pollution, global warming, ozone layer depletion and extinction of resources. Let's consider the example of air conditioner market - it is expected to rise to a market size of 3.73 billion US Dollars by 2020 and on the other hand the ozone concentration is expected to be 280-295 Dobson Units. The increase in concentration of greenhouse gases leads to depletion of ozone layer and those greenhouse gases are a by-product of our development. We can't deny the universal fact of what comes in, goes out. If we use resources for our greed rather than needs then nature will teach us harsh lesson instead of serving us. We are harming the place we are living in. How is it acceptable? Because our visions are restricted, our thoughts start from our personal living space to working space. We are so consumed in



our digital world that majority of population doesn't have time to lift up their eyes and watch the crying nature. Our economic goals and policies are bending more towards immediate benefits.

"Sustainability refers to the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. How far and to what extent did we apply this idea?"

Environmental concerns will only be tackled if we use same measuring tools to deal with them as we use for development, and make goals keeping in mind the long-term implications of the same. When we make any policy or take a step towards development then we commit the mistake of taking our mother Earth for granted. This happens so because we received these resources as free gifts from the Earth, which is about 4.7 billon years in age (according to

radioactive dating using uranium decay). Let's explain it through an example. Out there in market there is an enthusiastic budding entrepreneur and planning to build a mining factory in a place where extracts of gold are found. He will employ a big workforce and build the factory using natural resources like steel, iron, wood etc. Extensive mining will be carried out at the hotspots and extractions will begin. Vehicles will be employed which will release harmful gases CO₂, CO, SOx, NOx etc. and moreover mining practices will result in erosion, loss of biodiversity, sinkholes or the contamination of soil, groundwater, and surface water (stagnant as well as running) by the chemicals emitted from mining processes. The further processing and release of gases from chimneys without filtering dust, smokes, soot, fly ash, odour is another despicable outcome. After all these no one stands and questions their practices except few environmentalists ad NGOs. This is because marketers and business people involved are taking it as a mere source of income and general people are satisfied with the reduced prices of gold in their location.

When it comes to government authorities, it is vague to expect anything. How many political parties actually work for this burning cause? Lok Sabha election recently took place all across India and how many parties actually had environmental concerns at least in their election manifestos? We have laws on papers like The National Green Tribunal Act, Air (Prevention and Control of Pollution) Act, 1981, The Water (Prevention and Control of Pollution) Act, 1974, The Environment Protection Act, 1986, The Hazardous Waste Management Regulations, etc. But is Delhi's air pollution under control? Are rivers like Ganges and Yamuna clean and fit for daily use? Are people living in harmony with the nature and ecosystems are functioning accordingly?

Every question of nature demands an answer from mankind. Being the most aware and informed species of nature, we are destroying our habitat in the name of economic growth. These growths will not fill the stomachs for generations to come if similar trends are observed in pollution and global warming. There will be no more space for life, not only for humans but also for flora and fauna. Acts like deforestation, crop burning (recent cases of stubble burning in states of Haryana and Punjab), emissions without treatment and overuse of resources will ultimately lead to the end of the planet. History is evidence that no institution or economy is strong enough to face the wrath of the nature!

Rijul Bajaj (Special Mention)

Role of Youth in Combating Climate Change

"Climate Change has affected the earth's atmosphere and vice-versa. This has led to a significant change in the temperature, pressure, humidity and other major factors that have contributed to global warming and climate change. Any such interference with the normal natural course of the nature will lead to changes that can not only affect the climate drastically but lead to pay heavily in the longer run. Thus, one should avoid any such interference and imbalances causing activities to lead a better life. The impacts of climate change can be mitigated if the world come together and curb the release of greenhouse gases to the atmosphere and foster sustainable land use practices. We must all start to act right now in order to stop climate change."

Climate forms a major element of change in the world. Every now and then one can watch the climatic schedules and process changes, taking place around the globe. Climate change refers to the various changes in the climate & weather patterns due to the long period variations in the environment and its other factors. It is any drastic shift in weather and climate patterns, which means worrying changes in climate. Climate change refers to the negative changes on climate patterns due to excess greenhouses gases such as carbon dioxide, or as a result of excessive burning of fossil fuels.

Simple changes in the environment tend to change the weather and climatic conditions. For example- A rise in the temperature can lead to sudden rainfalls even if it's not a rainy season. It costs a lot when people are not prepared for it. Climate change also refers to the environmental changes that occur due to ozone layer depletion. There is a huge relation between the ozone layer and climate. The ozone layer is referred as the protective shield or blanket around the planet Earth. The major role of this protective layer is to protect the earth from harmful radiations from the sun. Ozone layer depletion may give rise to extreme climatic conditions like- global warming, etc. It also means the variations in the changes in the atmosphere, air, land areas and other elements of the earth due to external factors.

The causes of climate change can be narrowed down to two key things. The first is releasing CO2 and CO (greenhouse gases) into the atmosphere. These gases form a layer that traps the sun's rays and warms the atmosphere. The second is the destruction of the ozone layer, which enables more solar rays to penetrate through it and warm the earth. Some of the causes are burning fossil fuels in homes and factories which warms the earth's atmosphere, spraying aerosols damages the ozone layer and allows more harmful rays from the sun into the atmosphere, cutting down trees harm the climate as trees help to pump oxygen into the atmosphere and control levels of carbon. Even air travel and shipping industry account for huge emission of green house gases in the environment. Also, industrialization and urbanization leads to the emission of carbon dioxide, sulphur dioxide and other chlorofluorocarbons (CFCs). Adverse changes in climatic patterns may have a bearing on health conditions. It can also lead to the rise in extreme weather phenomena such as heavy flooding, lengthy droughts, increase in tropical cyclones etc. The surge in temperature may reduce soil productivity leading to a decrease in agricultural crop output. The food supply and the clean water sources may get affected. Melting of glaciers leading to sea level rise and hence in flooding in coastal areas is also an effect of climate change.

The future as well as the present of the world is in the hands of the youth. So, the contribution of youth is important in structuring a better and a greener environment. It is in our power to combat climate change. If these solutions are applied globally, even global warming would dramatically halt. There are various remedial measures that we as an individual should take in combating climate change and leading a better life.

Global warming should be reduced by developing low-carbon technologies that reduces the demand for fossil fuel guzzling factories, buying products made of eco-friendly materials, opting for renewable and green fuels in homes: wind, wave and solar energy do not cause climate change. As a foremost solution to the climatic changes, global warming needs to be reduced. This will not only ease the climatic fluctuations but also reduce the temperature and humidity changes in the atmosphere. The greenhouse gases emission will also be reduced. This will lead to reduction of greenhouse effect on the earth

and lower down the temperature rise. This will automatically help in reducing the effect of various factors contributing towards the climate change.

Also, pollution must be reduced to the greatest extent in order to reduce the effect on climatic changes by travelling less by car and plane and more by public transport or on foot or bike. Pollution tends to be a role players in climate change, thus even an effort to minimize the various types of pollution can be highly beneficial in this regard. Prevention of toxic emissions from industries is also a dire necessity. The toxic fumes and other chemical emissions coming from the industries are a prime reason and contributor to pollution. Thus, any such toxic fumes must be treated with utmost care and filtered to reduce the toxicity of the industrial emissions.

Youth should encourage plantation of trees everywhere. Forestation growth and plantation of high number of trees everywhere is a great practice towards reducing the pollution and other effects on the climate. The trees can help gain the lost oxygen content and retain the atmospheric composition. Regular tree plantations in the proximity to the industrial area will be of great help for reducing the toxic effects of the industrial fumes. This will not only promote higher oxygen emission to the environment but will also absorb the greenhouse gases as well.

Youth can play an spreading general climate change and disaster General awareness public can be of

"...now it's our turn to think, adopt, and adapt, and start to act right now"

important role in awareness about its effects and management. to the general great help even in

the slightest ratio. This will be a great step towards educating the people about the climatic changes, its effects and other factors responsible for it. With this simple step, one can let people understand the importance of avoiding factors that lead to climatic disruptions and how to avoid it. Disaster management, on the other hand, is another highly recommended solution towards reducing the climatic variations on the earth. This will help understand and excel in the handling process of any such harmful emission or disruptions that can contribute to climate change on a wider scale.

Also, habitats should be maintained properly. The various habitats of the people living there is built by keeping in mind the season and climate of the place. Keeping a check on the same and maintaining it properly will definitely help in maintaining the climatic deviations due to the various other factors. Maintaining the habitats helps combat unnecessary adverse affects on the atmosphere and the environment resulting into major climatic deviations and fluctuations.

In today's debate friendly and solution probing world of youth, organizing of world summits for international discussion can also help in finding the best ways to combat climate change. The various continents and countries can be a great contributor towards reducing the major climatic changes on the globe. Joining hands together will definitely create an ideology towards reducing the factors that will affect the climate, adversely. Therefore, now it's our turn to think, adopt and adapt and start to act right now and lead a better life.

Ananda Krishna

(Special Mention)

Role of Youth in Combating Climate Change

"Climate change is one of the major challenges of our times and adds considerable stress to our societies and to the environment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale."

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Climate change is one of the major challenges of our times and adds considerable stress to our societies and to the environment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly. It is quite astonishing that the effects of climate change are already manifesting across all borders of the world. True or false, climate change is now affecting every country on every continent of the world. Its palpable effects are disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow.

Given the environmental threat, there's more work to be done, especially for the young generation if the world is truly important to them. The world needs immediate action on climate change and our youth needs to step up to the challenge!

Following are 3 strategic ways through which youths across the world can help protect their home – the world.

1. Go green

Environmental protection requires innovative approaches such that the young generation must be empowered with the right skills to address environmental challenges and beyond. Why go green?

Going Green means different things to different people due to varying perspective. In the context of environment, it is making the world a more liveable place for all the living species on the planet. From the above, going green is "ensuring a greener environment." But there's more to that in terms of realisation. To explain, young people from diverse ethnicities and backgrounds need to pursue more knowledge and practices that can lead to secured environment and sustainable natural resources for present and future generations by increasing their environmental friendliness and taking ecologically responsible decisions.

2. Spread Awareness

For quick global effects, youth must continue to take part in governmental and non-governmental processes to spread awareness across the globe. "The role of the private sector in combating climate

change is becoming ever more relevant," says Climate Home. Hence, more collaborative efforts are crucial to tackling climate change by spreading its awareness among the people and working closely with governments to ensure policy implementations. For this, today's youth can use the social media for this. This will make sure that the idea of combating climate change will reach the maximum number of people in the world.

3. Partner with government

"The United Nations recognizes the role of youth in tackling climate change and works closely with youth-led and youth-focussed organizations around the world through the United Nations Joint

"The world needs immediate action on climate change and our youth needs to step up to the challenge!"

Framework Initiative on Children, Youth and Climate Change (Joint Framework Initiative)," says the U.N. There's no denying that robust public-private partnership is an efficient way to tackle environmental challenges. As such, youth organizations should partner local, national, and international governments for more frantic efforts to curtail environmental disasters.



Shashwat Ganesh Gawande

(Special Mention)

Turning Garbage Nation into a Sustainable Nation

"Being a native of Aurangabad in Maharashtra, I have noticed the waste disposal problem which arose in the city became a big waste management issue for the citizens. This issue in my surrounding inspired me to write an article on the topic. To turn a garbage nation into a sustainable nation, Garbage Management plays the most important role. According to the press information Bureau, India generates 62 million tonnes of waste every year. The proper garbage management will help to make a sustainable nation."

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Garbage and Its Management

Garbage management are the activities required to manage waste. Garbage is explained as unwanted material. It includes scrap, effluent or unwanted extra substance or article that needs disposal because it is broken, worn out or polluted. Garbage includes those substances which fall out of business cycle or chain of utility.

Speedy economic development has increased the living standard of the population. Hence material utilization has increased which has increased the garbage quantity. Types of garbage generated in urban areas include:-

- 1. organic waste
- 2. plastic waste
- 3. metal waste material
- 4. glass waste material
- 5. paper waste material

Characteristics of Waste Generation

Source of waste	Waste
Industrial	Construction, Manufacturing, Fabrications, Power plants
Commercial	Eateries, Restaurants, Stores, Hotels
Institutional	Hospitals, Schools, Jails
Residential	Organic and Inorganic waste from families, colonies, apartments
Construction	Construction sites, roads
Municipal services	Various cleaning services, parks, community places, waste
	water treatment plants
Process	Chemical plants, natural resources processing, oil refineries
Agriculture	Crops, fertilizers, pesticides remaining

Types of Garbage

Types	Examples
Liquid garbage	Sewage, chemicals from industries
Solid garbage	Broken furniture, old car
Organic garbage	Food
Recyclable garbage	Newspaper
Hazardous garbage	Petrol, pesticides

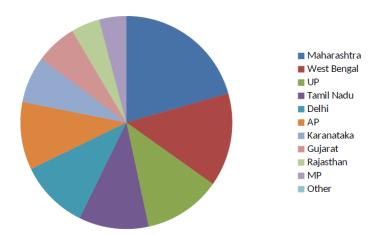
The waste management process begins with collection, where the garbage is collected and transported for further processes. Then the garbage is separated in different types. The recyclable waste is recycled and rest is disposed by different disposal methods.

Sustainable Development

According to World Commission on Environment and Development, "Development that meets the need of the present generation without compromising the ability of future generations to meet their own needs" is Sustainable Development.

To have a sustainable nation following tips can be useful:

- 1. Avoid generation of waste
- 2. Promote reuse of waste
- 3. Promote biological recovery of waste and recycling of material
- 4. Promote energy use of waste not suited for recycling
- 5. Ensure that the treatment and disposal of waste does not cause ant harmful impacts.



Above chart shows the amount of annual waste generation in different states of our country. Top five waste generating states are Maharashtra, West Bengal, UP, Tamil Nadu and Delhi. According to the Press Information Bureau of India, we generate 62 million tonnes of waste per year and 100,000 metric tonnes of waste per day.

Types of Garbage Disposal

- 1. Landfills It is the oldest form of garbage treatment, which is simple burial of waste material in ground.
- 2. Incineration It involves combustion of the organic waste products.
- 3. Recovery Use of waste to make new products is recovery of waste.
- 4. Recycling Process of converting waste material into new material.
- 5. Composting Decomposing of organic material is composting.
- 6. Waste to energy Production of energy from waste.

Conclusion

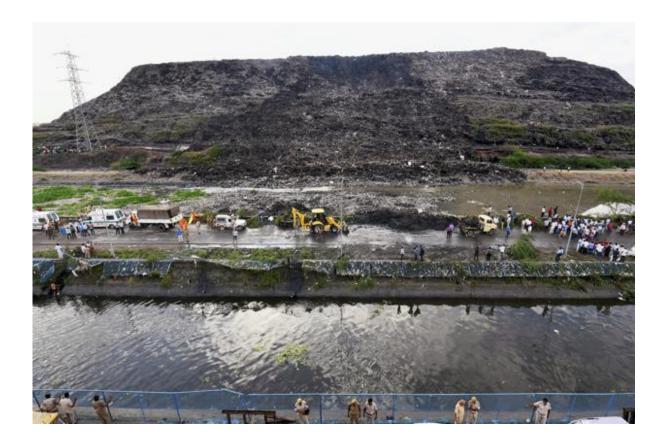
According to the above study, our country produces 62 million tonnes waste per year and hence we have to work to reduce the waste production and make our nation a sustainable nation. To reduce garbage, we have to reuse things and avoid the use of things like plastic. Besides this, the garbage management rules should be followed by all the citizens of the country.

Simple changes to reduce garbage in day to day life

Start recycling and reusing things. So the waste generation is decreased and waste can be used again and again. Collect dry and wet garbage separately. So the waste management gets easy and the collection and transportation process becomes simple. Ditch plastic bags. Plastic contributes much of the waste and plastic management is a difficult process so the use of plastic should be stopped. Cook according to your estimated need, or order

as per your requirement, as cooking or ordering extra food from outside results in wastage. The wet waste from houses is mainly from this food wastage. Repair things rather than discarding them. Repairing things and using them reduces the waste production. Stop buying plastic water bottles.

These small changes can change garbage nation into a sustainable nation.





Turning Garbage Nation Into A Sustainable Nation

"My objective is solely to make people aware of the importance of this topic and the need to realize that something has to be done and soon before it gets too late. It is also very important as people should realize where we stand as a country and what should be our aim, our future should be aiming at a sustainable nation. Especially in these times when climate change is having adverse effects on every aspects of our lives." I think someone has rightly said that, "the earth provides enough to satisfy every man's needs, but not every man's greed." I think it is high time people start to realize the importance of this statement when the crisis of global warming and climate change is at its peak. I won't even shy away from saying that we live in a garbage nation.

Plastic has become a part and parcel of our lifestyles and no one wants to get rid of it. Plastic has become so entwined with our environment that the deepest part of the ocean, the 'Mariana trench' isn't rid of it either. No one knows how many gallons of plastic goes into our systems on a daily basis. It is not just us humans suffering from this change. Animals are its victims too. Large numbers of whales are getting washed onto the shores frequently with tons of plastic in their stomachs. And I think it is only right to blame humans for their suffering. We have become so engrossed with our lives that we have become ignorant to the heights that no one cares what is going on around them, and how each and every one as a responsible citizen could help turn this garbage nation into a sustainable nation. I think it would be a big step if everyone could keep their political opinions aside and participate in the *Swachh Bharath Abhiyan*. It's important we start with small steps because we don't have much time left.

"A nation becomes a sustainable nation only when all the citizens are educated and well aware of the situation and its oncoming consequences."

The most basic thing one could do is not to litter. We buy chips and throw the packets on the road. Plastic is present even in the air we breathe. Its microscopic particles are present everywhere and it's high time we start trying to unbind ourselves from it. This is because of all the waste that we throw around without caring about

our environment. Every day we see loads and loads of garbage thrown on roads and railway station. We do not follow proper waste segregation techniques. There is no recycling reusing or reducing happening in our daily routines.

A nation becomes a sustainable nation only when all the citizens are educated and well aware of the situation and its oncoming consequences. Only when the people understand how their steps are affecting the environment will they be able to change themselves. 'Knowledge is power', is a true saying that we often come across. To clear our country from becoming a complete garbage nation we have to reduce and minimize waste as much as possible. Many a times we throw biodegradable waste when we could make better use of it by turning it into compost. Everyday there are so many campaigns discussing the issues of climate change. There are many rallies taking place that voluntarily clean public spaces like beaches etc. Such initiatives will lead to mammoth steps and bring about a global change. One just has to realize that just as we like to keep our houses clean and throw the garbage in an appropriate place, this world is similarly our home too and we have no right to litter it as we please.

Nandini Jain (Special Mention)

Finding Sustainability In Consumerism

"I chose this topic as this topic has been rarely discussed and for a country like India where growing populations is leading to ever expanding consumer base, it is important that there should be sustainability in their consumerism. People in India hardly know about their rights and their duties towards being a consumer. Therefore, it is important that they should know the reality of being a consumer and how to act wisely to save their environment by incorporating sustainability in consumerism."

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Sustainable Development implies growth without any depletion of natural resources of the future generation. The idea of sustainable development took root mainly from the 1987 Brundtland report. It is high time that sustainable development be exercised all over the world and adopted with full implementation as the industrialization is at its peak all over the globe.

Industrialization has caused widespread consumerism across the globe, due to which the present need of the hour is to focus on finding sustainability in consumerism. Many doctors and psychologists have described the role of environment pollution in contributing towards human depression. Due to globalization and development human and animal development has been compromised. Countries such as India are home to some of the most polluted cities in the world. Therefore, it is important in such countries that people should adopt sustainability in their lives. Due to increase in plastic pollution different countries all over the globe have agreed to do something about this, and take some steps, but they are not implementing them effectively. First of all, in all schools across the globe it should become mandatory for all the students to know how to plant trees. Half of the people don't know the importance of planting trees, this can be taught to all the students only by education and practically planting trees with them. Netherland is the only country in the world, giving incentives to its employees for riding bicycle to the office which should be encouraged in all workspaces.

Government funded NGOs should be encouraged to do research in the field of environment and it should be made compulsory for all students of schools and colleges so that students of different fields should study it and understand the importance of our environment. Natural made goods which don't have any harmful chemicals should be made available at lower price and there should be separate applications and softwares for it to make purchasing easy. Plans and policies of the government should be explained to people. International seminars with the main motto of encouraging environmental awareness should be promoted and shown to maximum number of people through screening widely, including in education institutions. Harmful effects of burning firecrackers which are not environment friendly should be explained.

Shivani Gagaein (Special Mention)

Role of Youth in Combating Climate Change

"My topic is role of youth in combating climate change and I have chosen this topic because I want to research and want to know more about the climate change and role of youth. My main objective is to create awareness about it."

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Climate change is a big global problem. Human activities have caused green house gas emissions, and a rise in carbon dioxide levels in the atmosphere, rise in sea levels, melting of ice sheets. Because of these outcomes, changes in the pattern of weather are enhancing. Just because corporations want to make money, the whole world is suffering. Now, the role and the responsibility of combating climate change is only on the youth. Youth plays a major role in combating climate change. They have power, energy, responsibility, and the future of the globe rests in their hands. Young people are more concerned about their environment and the climate change because they are the ones which will most face the adverse effects of human activities and the challenges coming in the future. Youth all over the globe are spreading awareness and educating their coming generations. They are getting involved in these activities in many creative ways and working hard to tackle the issues related to the climate change. They are forming networks and are getting connected to different organisations working towards the climate change.

Many organisations are working towards climate change like United Nations (UN), United Nations Framework Convention On Climate Change (UNFCCC), UN Environment (UNEP), etc. We can take an example of Greta Thunberg, the girl who is from Sweden and only 15 years old. She has become the inspiration for many. She skips school every Friday to demand from higher authorities the change and needs to change the system. People from Switzerland also went for strike in March 2019. There are many more examples to establish the role of today's youth, like the Zero Hour Climate March in July 2018, where youth asked the governments to revise the term environmentally displaced people in a way that tackles the protection gap regarding their rights. A conference was held in CYNESA, Rwanda in 2018 wherein young people took initiative to discuss tackling climate change. Because of this, the government of Rwanda has settled on 3 areas of works that are economy, environment and social. One example is of Thailand. A study at Chulabhorn Dam in Chaiyaphum Province focused on the preservation of forest resources and it also helped in increasing awareness among students and benefit of trees for the environment and society. A school community learning project was conducted in Chiang Mai province

involving adults, teachers, children to support forest conservation. Examples of India include the story of Kalpana Ramesh, an architect, and she has designed her house in a way to harness the rain water and recycling of grey water which can reduce dependence on tankers. She is a volunteer with SAHE (Society for Advancement of Human Endeavours). There are a lot many examples like this. Youth is really concerned and making every possible effort like filing petitions, campaigning, because every small effort counts.

Even when youth is participating and doing their best, they have to face a lot of problems, especially in developing countries, like struggles for administrative structures to

integrate agendas like climate change. Strong political power and will as well as coordinated national policy are needed to make the programs work. Small efforts by the youth are also needed at this point of time. What is more important is that everyone is asking for a change and spreading awareness in their performing surroundings and different creative activities. This will go long and needs more active participation, and for this environment and climate change should not be taken lightly, and knowledge regarding the same should be provided in a strict manner.

"Young people are more concerned about climate change because they are the ones who will face adverse effects of human activities and challenges in the future the most."

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Spearheading Sustainable Growth