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**INTRODUCTION**

Long-term changes in temperature and weather patterns are referred to as climate change. These movements could be due to natural causes, such as oscillations in the solar cycle. However, human activities have been the primary cause of climate change since the 1800s, owing to the combustion of fossil fuels such as coal, oil, and gas.

Fossil fuel combustion produces greenhouse gas emissions, which act as a blanket around the Earth, trapping the sun's heat and boosting temperatures. Carbon dioxide and methane are examples of greenhouse gas emissions that contribute to climate change. These are produced by, for example, running a car or heating a building with coal. Carbon dioxide is released when land and forests are cleared. Garbage landfills are a major source of methane emissions. Industry, energy

Significant, long-term changes in the global climate are referred to as climate change.

The interrelated system of the sun, earth, and oceans, wind, rain, and snow, forests, deserts, and savannas, as well as everything people do, makes up the global climate. The climate of a place, such as New York, can be described in terms of rainfall, seasonal temperature changes, and other factors. However, the global climate is more than the "average" of local climates.

Significant, long-term changes in the global climate are referred to as climate change.

A depiction of the global climate includes how, for example, rising Pacific temperatures feed typhoons, which blow harder, drop more rain, and do more damage, but also shift global ocean currents, which melt Antarctica ice, causing sea levels to rise steadily until New York is submerged. Global climate change is both vital and challenging because of its systemic interconnectedness.

Global warming is the gradual rise in the average temperature of the earth's atmosphere as a result of an increased amount of solar energy (heat) being trapped in the atmosphere rather than dissipated into space. The earth's atmosphere has always operated as a greenhouse, capturing the sun's heat and guaranteeing that temperatures suitable for the formation of living forms such as humans have existed.

The world would be quite chilly without our atmospheric greenhouse. Global warming, on the other hand, is a greenhouse with high-efficiency reflective glass inserted backwards. The best evidence for this may come from a catastrophic cold event that occurred 1,500 years ago.

Heat is energy, and adding energy to any system causes it to change. Because the entire climate system is interconnected, adding heat energy causes the global temperature to alter as a whole. Ocean covers much of the globe, which heats up. More water evaporates into clouds when the ocean heats up. Storms such as hurricanes and typhoons produce more energy-intensive storms where they form. Glaciers and mountain snow packs, the Polar ice cap, and the vast ice shield protruding off Antarctica all melt as the atmosphere warms, rising sea levels.

Drought and unpredictable weather are becoming more common as climate change alters the major wind patterns that bring the monsoons to Asia and rain and snow to the rest of the planet. This is why scientists have shifted their focus away from global warming and toward climate change as a whole.

There are three perspectives on global warming: (1) no global warming and thus no climate change; (2) global warming and climate change are occurring, but they are natural, cyclic events unrelated to human activity; and (3) global warming is occurring as a result primarily of human activity and thus climate change is also occurring.

In the face of mountains of visual, ground-based, and satellite data that plainly reveals rising average sea and land temperatures and dwindling ice masses, the assertion that nothing is happening is difficult to justify.

The argument that observed global warming is natural or, at the very least, not caused by human carbon emissions.

This warming trend has accelerated as we have increased our use of fossil fuels such as gasoline, diesel, kerosene, and natural gas, as well as petrochemicals (plastics, medicines, and fertilizers) produced from oil. Scientists blame the present warming trend on the usage of fossil fuels, which releases carbon stored millions of years ago into the atmosphere. Scientists have determined that the addition of this "ancient" carbon to the world's current carbon stock is what is heating our planet and causing global warming.

Climate change may have an impact on our health, food production, housing, safety, and employment. People who live in small island nations and other impoverished countries are already more exposed to climate change. Sea-level rise and saltwater intrusion have forced entire villages to evacuate, and prolonged droughts are putting people at risk of starvation. The number of "climate refugees" is anticipated to climb in the future.

Thousands of experts and government reviewers agreed in a succession of UN publications that keeping global temperature rise below 1.5°C would help us avoid the worst climate impacts and maintain a habitable environment. Global warming is expected to reach roughly 3.2°C by the end of the century, according to current national climate plans.

Climate change-causing emissions come from all over the world and harm everyone, although some countries create more than others. The 100 countries with the lowest emissions account for 3% of total emissions. The ten countries with the highest emissions account for 68% of total emissions. Everyone must take climate action, but those who cause the most damage have a larger obligation to act first.

**QUESTION 1. WHY IS THE UN’S GOAL OF TAKING RESPONSIBLE ACTION FOR CLIMATE CHANGE IMPORTANT, IN YOUR OPINION?**

We're all worried about climate change, but when it appears to be an issue for future generations, you wonder if it will affect you. Climate change is already harming our planet today, regardless of what you care about. Here are five compelling reasons why we should all be concerned about climate change while we still have time to mitigate the worst effects.

It's been a while since environmentalists and climate activists raised worries about reckless human behaviors that led in the release of greenhouse gases into the atmosphere, creating global warming, which accelerated the melting of glaciers, causing sea levels to rise and flood the land. At the same time, climate change has increased the unpredictability and intensity of weather and natural disasters like hurricanes and tornadoes. With the increase in deforestation and recent major wildfires, such as the terrible wildfire that occurred in Australia and of recent events in Turkey. But there are few reason why climate change is important to us all. These are;

1. **FOR THE FACT THAT RAINFORESTS ARE AMAZING**

Rainforests are some of the most valuable environments on the globe, as they are unique, irreplaceable, and sometimes referred to as "the world's lungs." They're truly incredible; the Amazon, for example, is home to 1 in 10 of all known species on the planet. Climate change has already threatened nearly a third of the Amazon rainforest. It's also a double-edged sword: forest destruction – primarily for agricultural purposes – is a major contributor to climate change, releasing massive amounts of greenhouse gases.

1. **WE ALL DESERVE TO BE ABLE TO BREATHE CLEAN AIR.**

With rising carbon emissions, it's understandable that air quality will suffer. Human health particularly that of children is affected. Asthma, heart disease, and lung illness can all be caused by air pollution. The insidious haze in Beijing is a physical reminder of this, but poor air quality is also generating headlines in the UK, where MPs have declared it a "public health emergency."

1. **WE ARE ALL AFFECTED, NO MATTER WHERE WE LIVE IN THE WORLD**

Climate change will affect everyone, not only the forest, coral reefs, or people in far-off places. People everywhere will experience the effects, from more harsh weather to rising food prices to recreation and less opportunity to appreciate the natural world. Reducing our carbon footprint is critical for creating a world where people and wildlife coexist, which is why the WWF is working on it.

1. **SNOW LEOPARDS, TURTLES, AND POLAR BEARS ARE ALL AMAZING.**

Climate change will have a significant impact on animals all around the planet. If we care about magnificent species, we must be concerned about how a warming climate will make it more difficult for them to get food and reduce their habitats - from forests to sea ice to rivers and chalk streams around the world.

1. **BECAUSE CORAL REEFS ARE INCREDIBLE**

Finding Nemo or Dory may become more difficult as our changing environment causes their gorgeous habitats to disintegrate. Coral bleaching occurs when air and ocean temperatures get too warm, causing corals to lose their Colour and possibly die. Ocean acidification is exacerbated by growing CO2 levels in the atmosphere. The ocean is now 26% more acidic than it was in 1990, and the Great Barrier Reef has just suffered unprecedented back-to-back bleaching events in 2016 and 2017. For anyone wishing to visit the Great Barrier Reef one day, climate change is bad news.

1. **WE ALL REQUIRE CLEAN WATER.**

Did you know that two out of every three people on the planet live in areas with acute water scarcity? Even a minor increase in global temperatures will destabilize the water cycle, thereby worsening water scarcity. Because climate change alters rainfall patterns, drought and flooding will become more common and severe. Climate change may already be making you late for work, despite the fact that it isn't as bad as life-threatening floods.

1. **WE ALL HATE THE SIGHT OF POLITICIANS IN WELLIES FOR THIS REASON.**

In recent years, global temperature records have been broken, and flooding in the world has gotten worse. We've watched politicians wade through floods everywhere in the world and argue with each other year after year. Extreme weather is becoming more common and intense as a result of human greenhouse gas emissions. Much hasn’t been done to tackle climate change despite all the seminars, workshops and meeting by world leaders.

1. **DURING FUTURE GENERATIONS**

We are lucky to live on a planet that is beautiful, diverse, nurturing, and inspirational. The same is due to our children and future generations. You're not alone if you're worried right now. Hundreds of millions of people are collaborating to save our world. Earth Hour is a fantastic reminder that mankind is capable of great things when we work together, and we can make change happen for the right reasons. So much has changed since we first heard about climate change's potential consequences. It is more crucial than ever that we use our actions, votes, and voices to make a difference.

Furthermore, in my opinion, climate change, as we've seen, can be natural. Why should we be concerned about current climate change if climate change occurs naturally? After all, the early third period was warmer than now, but life flourished even in places that are now uninhabitable, such as the interior of Antarctica.

One common misunderstanding is that the threat of climate change is related to the Earth's absolute warmth. That is not the case at all. Instead, scientists are concerned about the rate of change. Living creatures, including people, can easily adapt to significant climate changes if the changes occur gradually over thousands of years or more. Adapting to changes, on the other hand, is a challenge.

**QUESTION 2.** **HOW IS THE STATE OF CLIMATE ACTION IN THE WORLD?**

Goal 13 demands immediate action to fight climate change and its consequences. All 16 other Goals of the 2030 Agenda for Sustainable Development are inseparably tied to it. Countries signed the Paris Agreement to restrict global temperature rise to far below 2 degrees Celsius in order to combat climate change.

Researchers from all across the world have documented rises in temperature at the Earth's surface, as well as in the atmosphere and oceans, in thousands of studies. Many other components of the global climate are also shifting. Temperature extremes and heavy precipitation events are becoming more common, while glaciers and snow cover are diminishing and sea ice retreats. Seas are warming, rising, and growing more acidic, and coastal flooding is becoming more common. The growing season is longer, and big wildfires are more common. As a result of climate change, many species are migrating to new locations, and the seasonal timing of crucial biological activities is changing. All of these tendencies point to a warmer globe, and they are anticipated to continue.

There are numerous lines of evidence.

Every country on every continent is currently affected by climate change. It is harming lives and destabilizing national economies, costing people, towns, and countries dearly today and even more future. Climate change is having substantial effects on people, including shifting weather patterns, increasing sea levels, and more extreme weather occurrences. Human-caused greenhouse gas emissions are causing climate change and continue to rise. They've reached their highest point in history. Without intervention, the world's average surface temperature is forecast to climb during the twenty-first century, surpassing 3 degrees Celsius this century, with some parts of the globe expected to warm significantly more. The poorest and most vulnerable people are the ones who are most affected.

Countries may now leapfrog to cleaner, more resilient economies thanks to affordable, scalable technologies. As more people turn to renewable energy and a variety of other steps to cut emissions and improve adaptation efforts, the speed of change is rising.However, climate change is a global issue that transcends national boundaries. Emissions have an impact on people everywhere. It's a problem that demands global coordination and international cooperation to help developing countries transition to a low-carbon economy.

On December 12, 2015, during the COP21 in Paris, countries adopted the Paris Agreement to combat climate change. Less than a year later, the Agreement went into effect. All countries are included in the pact. Climate change is now a reality. We must adapt to climatic implications in order to safeguard ourselves and our communities, in addition to doing everything we can to reduce emissions and limit global warming. The consequences differ depending on where you live. Fires or floods, droughts, hotter or colder days, or sea-level rise are all possibilities. Steps around the world on the state of climate action has been taken, few point will be lay out.

There are numerous ways to adapt to current and future events. Simple steps can be taken by individuals. You can, for example, plant or protect trees around your home to keep the temperature inside cooler. Brush clearing could help prevent fires. Start thinking about and planning for potential climate risks, such as hot days that restrict employees from performing outside chores. Everyone should be aware of the possibility for natural catastrophes where they live, as well as the services available to them in the event that they occur. This could be getting insurance ahead of time or knowing where to acquire disaster information and assistance in the event of a disaster.

Because of the magnitude of climate change and the fact that it will touch many aspects of life, adaptation must be done on a larger scale. Our economy and society must become more robust to the effects of climate change. Large-scale activities will be required, much of which will be coordinated by governments. Higher temperatures and more intense storms may need the construction or adaptation of roads and bridges. Some coastal communities may need to put in place mechanisms to prevent flooding in their streets and subways. Landslides and overflow from melting glaciers may be a problem in mountainous areas.

The state of climate changes is happening divers ways across the globe;

According to the latest Intergovernmental Panel on Climate Change (IPCC) Report, scientists are seeing changes in the Earth's climatic in every region and across the whole climate system. Many of the climate changes that have been seen are unprecedented in thousands, if not hundreds of thousands, of years, and some of the changes that have already occurred—such as continuous sea level rise—are irreversible over hundreds to thousands of years. Strong and long-term reductions in carbon dioxide (CO2) and other greenhouse gas emissions, on the other hand, would restrict climate change. While the improvements to air quality would be immediate, stabilizing global temperatures could take 20-30 years.

1. **More rapid warming**

Research presents fresh estimates of the likelihood of exceeding 1.5°C global warming in the coming decades, concluding that limiting warming to 1.5°C or even 2°C will be impossible to achieve unless fast, quick, and large-scale reductions in greenhouse gas emissions occur.

The analysis indicates that human-caused greenhouse gas emissions are responsible for approximately 1.1°C of warming between 1850 and 1900, and that global temperature is anticipated to approach or exceed 1.5°C in the next 20 years. This estimate is based on enhanced observational datasets for assessing past warming, as well as scientific advancements in comprehending the climate system's response to human-caused greenhouse gas emissions. This report is accurate.

1. **Every region is undergoing rapid change**.

Many aspects of climate change are closely related to global warming, yet people's experiences are frequently vastly different from the worldwide average. Warming over land, for example, is higher than the global average and more than twice as high in the Arctic.

Climate change is already having an impact on every part of the globe in various ways. With more warming, the problems we're seeing will get worse. Climate change is expected to accelerate in all regions in the coming decades, according to the report. There will be more heat waves, longer warm seasons, and shorter cold seasons with 1.5°C of global warming. Heat extremes would more frequently surpass crucial tolerance levels for agriculture and health at 2°C of global warming, according to the analysis. It's not just about the temperature, though. Climate change is causing a variety of changes across the globe, all of which will worsen as the planet warms. Changes in moisture and dryness, winds, snow and ice, coastal places, and oceans are all examples.

* The water cycle is being accelerated by climate change. In many areas, this means more heavy rainfall and flooding, as well as more intense drought.
* Rainfall patterns are being influenced by climate change.
* Precipitation is expected to increase in high latitudes, whereas it is expected to decrease in the subtropics.
* Monsoon precipitation is likely to change, with regional variations.
* Sea level rise will continue in coastal areas throughout the twenty-first century, resulting to more frequent and severe coastal flooding in low-lying areas as well as coastal erosion.
* By the end of the century, extreme sea level events that happened once every 100 years might happen every year.
* Further warming will hasten permafrost thawing, as well as the loss of seasonal snow cover, glacier melting, and other effects.

**(C )** **Influence of humans on past and future climate**

The Earth's climate has been changing for decades, and the role of human influence on the climate system is undeniable. However, the new research also reflects significant improvements in the science of attribution, which involves determining how climate change contributes to the intensification of certain weather and climate phenomena like intense heat waves and heavy rains.

The analysis also demonstrates that human actions have the capacity to influence climate change in the future. Even while other greenhouse gases and air pollution affect the climate, the research shows that carbon dioxide (CO2) is the principal driver of climate change.

Stabilizing the climate will necessitate significant, quick, and long-term reductions in carbon emissions

**QUESTION 3. WHAT CAN YOU DO TO PREVENT EXTREME CLIMATE CHANGE?**

Climate change not only causes catastrophic weather events and harmful health consequences around the world, but it also poses a direct threat to human existence for many of the world's most vulnerable communities as a threat multiplier. To fight the numerous problems posed by climate change, nations have committed to limit global average temperature increases to 1.5°C above preindustrial levels. We think that addressing climate change is critical not only for global peace and security, but also for meeting our moral obligation to protect the most vulnerable populations. Some actions are listed below to prevent climate change.

1. **Spread the word and start a discussion on climate change.**

We must all work together to address climate change. We can't achieve that until we can establish common ground with people who don't share our viewpoint. You can talk to people about climate change in ways we can't because people trust peers, family members, and loved ones more than expatriates, scientists, and environmental organizations. You have a better chance of opening people's minds. Climate is a fun and interactive things that teaches you how to have climate change talks that are less divisive and more focused on empathy and finding common ground. Moving forward on climate solutions requires overcoming divisiveness.

Encourage your family, friends, and coworkers to cut their carbon emissions. Join a global campaign which aims to motivate 1 billion people to take action and push their leaders to take more ambitious climate action.

1. **Maintain political pressure.**

Encourage local leaders and businesses to support initiatives to minimize carbon pollution and cut emissions. Be parts on political pressure and corporate action. Choose an environmental issue that you care about, make a particular change request, and then try to visit with your local representative. Your voice deserves to be heard, even if it seems daunting. Politicians must be a part of the answer if mankind is to succeed in addressing the climate emergency. It is up to us all to keep up with the demands.

1. **Plant some trees.**

Every year, over 12 million hectares of forest are destroyed, accounting for roughly 25% of global greenhouse gas emissions, along with agricultural and other land use changes. We may all help to reverse this trend by planting trees, whether individually or as part of a group. The Plant-for-the-Planet initiative, for example, allows people to finance tree planting projects all around the world.

See what else you can do as part of the United Nations Decade on Ecosystem Restoration, a global effort to stop land and ocean degradation, safeguard biodiversity, and repair ecosystems.

1. **Concentrate on eco-friendly investments.**

Individuals can also help to drive change by picking financial institutions that do not invest in carbon-polluting sectors with their savings and investments. This sends a strong signal to the market, and many financial institutions are already offering more ethical investments, allowing you to support causes you believe in while avoiding those you don't. You can inquire about your financial institution's responsible banking policies and see how they rank in independent studies.

1. **Dress for the weather.**

The fashion sector is responsible for 8-10% of global carbon emissions, which is more than all international flights and maritime shipping combined, and 'fast fashion' has produced a throwaway culture in which items wind up in landfills swiftly. But this is something we can change. Purchase fewer new garments and wear them for longer. Instead of buying new goods that will only be worn once, look for sustainable labels and use rental services for special events. Recycle old garments and make repairs as needed.

1. **Don't throw food away.**

One-third of all food produced is lost or thrown away. People squander 1 billion tons of food per year, according to the UNEP's Food Waste Index Report 2021, accounting for 8-10% of global greenhouse gas emissions. Buy only what you require to avoid wasting money. Utilize every edible component of the meals you purchase. Measure rice and other essentials portion proportions before cooking, store food properly (use your freezer if you have one), be creative with leftovers, share extras with friends and neighbors, and contribute to a local food-sharing system. Make compost out of inedible remains and use it to fertilize your plants. Composting is one of the most effective methods for dealing with organic waste.

1. **Buy locally and sustainably.**

We should buy local and seasonal foods to lessen our carbon footprint. We’ll be assisting local small businesses and farmers while also decreasing fossil fuel emissions from transportation and cold chain storage. Compared to conventional farming, sustainable agriculture consumes up to 56% less energy, produces 64% fewer emissions, and allows for higher biodiversity. Take it a step further and experiment with growing your own fruits, vegetables, and herbs. They can be grown in a garden, on a balcony, or on a window sill. To get others engaged, start a community garden in your neighborhood.

1. **Leave the automobile in the garage.**

Instead of driving, walk or cycle – and reap the physical and mental health benefits as well as the financial savings. Use public transportation or car-sharing services for longer excursions.

Not only do automobiles contribute to greenhouse gas emissions, but traffic pollution also poses a major threat to public health. It has been demonstrated to harm unborn babies' health and raise the chance of dementia.

1. **Reduce your energy use and costs.**

Small modifications in your daily habits can help you use less energy at home, lowering your carbon footprint and energy bills: Put on an extra layer and lower the heat down a couple of degrees. When you are not using lights or appliances, turn them off. Light bulbs should be replaced with LEDs or other low-energy lights. Make easy improvements to your hot water usage, such as purchasing a water-saving shower head.

**QUESTION 4. DO YOU THINK IT IS POSSIBLE TO ACHIEVE RESPONSIBLE ACTIONS FOR CLIMATE CHANGE? WHY OR WHY NOT?**

Climate change will force societies to make decisions. Managing the dangers associated with future human-caused climate change will require a combination of four basic strategies:

Emissions reduction: lowering greenhouse gas emissions to reduce climate change. Carbon dioxide (CO2) is removed from the atmosphere and stored in permanent geological, biological, or marine reserves. Adaptation is the process of reacting to and coping with climate change as it happens, whether it is planned or unforeseen.

Large-scale artificial modifications to decrease the quantity of sunlight reaching the earth in an attempt to balance the effects of continuous greenhouse gas emissions are referred to as solar geoengineering. Each represents a large number of distinct possibilities, each with its own set of risks, costs, and rewards. The four tactics can interact: for example, doing nothing to reduce emissions would necessitate doing something to reduce emissions.

CO2 is the primary cause of human-caused climate change. If the world agrees to limit warming to less than 2°C over preindustrial levels, future CO2 emissions would have to be limited to around 30 years' worth of present emissions. The amount of carbon in accessible fossil fuel reserves is estimated to be several times more than the carbon limitation for a 2°C warming limit, according to various estimates. As a result, such a carbon cap, or even a much more lenient one, can only be met if a major portion of potential fossil fuel reserves is left unburned or if CO2 produced is caught and permanently buried.

In principle, there are two actions that could loosen future emission restraints, but both come with considerable risks, costs, and/or limitations. One option is to store CO2 from combustion exhaust streams or the atmosphere underground, in the deep ocean, or in trees or soil. Carbon must be stored in areas that can hold it for generations. Logistical, economic, and technical obstacles face carbon sequestration systems.

Another option is to lower the Earth's net absorption of sunlight, for example by creating a stratospheric aerosol layer or deploying space shields. While this could help to mitigate the effects of increased greenhouse gas emissions on the surface, it would not be enough to prevent ocean acidification and would need to be maintained.

Additional global warming is unavoidable under any realistic future emissions scenario is necessitating adaptation measures. In fact, adaptation is currently required in response to climate change that has already occurred. The more the CO2 emissions in the next decades, the more drastic the future adaption measures will be. Ecosystems and human societies both have limits to their adaptive capacities, especially in less developed areas. As a result, the decisions we make now about emissions will have an impact on not only future adaptation requirements and costs, but also their feasibility.

Objective scientific information on the effects of alternate pathways is critical as our society makes decisions about how to manage the dangers and possibilities connected with climate change. Choices are also influenced by ethical frameworks and value judgments regarding people's, economies, and environmental well-being. Climate science's role is to inform judgments by providing the most up-to-date information on climate outcomes and the repercussions of certain actions.

According to the nonprofit, these initiatives could include tree planting, retrofitting instruction, renewable energy, and low-carbon farming approaches. It can be popular if it is hard work with paid leave. Other proposal include establishing a "fixing factory" on every high street to assist people with household repairs, and building "energy positive" homes that produce more renewable energy each year than they consume from the grid. Electric highways were also suggested as a technique to assist cut emissions.

Possible proposed a standardized reuse scheme for all takeaway containers, own-brand grocery products, and coffee cups to eliminate plastic packaging. Meanwhile, tree-planting would be another project; one of the ten proposals was to plant millions of trees on top of abandoned open mines to create additional forests.

Everyone must be involved if we are to proceed at the requisite speed and if we are to ensure that the new world we construct is fair. It's critical that we have ideas that don't just reduce carbon emissions, but also motivate people to take positive climate action."

Possible stated that the concepts were created with the recommendations of the Intergovernmental Panel on Climate Change in mind, specifically that swift action is required to keep global temperatures from rising more than 1.5 degrees Celsius over pre-industrial levels.

**Possible responsible actions to achieve climate change**

**1**. **Local community power:** To use locally made tools like solar panel that will serve as energy supply to local community for their energy sustainers.

**2. A National Climate Helpline**: A telephone and internet helpline that provides information on climate change, support for those who are experiencing climate fear, and access to crisis support for climate change consequences.

**3**. **A fixing factory on every high street**: Free and easily accessible community hubs that provide services such as access to repair specialists, assistance with guarantee schemes, and training for those interested in learning how to mend home products.

**4.** **Electric highways:** Turn a network of electric roads for truckers and coaches, all powered by community-owned renewable energy.

**5. Plant a climate forest**: A public-owned forest created by planting millions of trees on top of abandoned open-cast coal mines.

**6. Heat pumps under public green space:** Install heat pumps under as many public green spaces as possible, from parks to allotments, to generate cash for local governments.

**7. A climate emergency war chest for local governments**: A national climate response program that provides local governments with the tools they need to carry out climate emergency declarations.

**8. Energy positive homes**: Every new home we construct should not only be "zero carbon," but also "energy positive," producing more (clean) energy onsite each year than is imported from the grid.

**9. Reusable plastic packaging**: A standardized reuse scheme for all takeaway containers, own-brand grocery products, including coffee cups.

**10. Nationwide Climate Service**: A national initiative that allows anyone in their local communities or their country to take climate leave to do something remarkable for climate change.

**QUESTION 5. HOW CAN YOU TEACH THE NEXT GENERATION TO PREVENT EXTREME CLIMATE CHANGE?**

In order to avoid dramatic global consequences such as rising sea levels, dying coral reefs, and human casualties due to extreme heat, a landmark United Nations report released on Monday warned that adequately limiting man-made global warming will "require rapid, far-reaching, and unprecedented changes in all aspects of society."The UN's Intergovernmental Panel on Climate Change published a special report on Monday that looked at what it would take to keep global temperatures from rising more than 2.7 degrees Fahrenheit (1.5 degrees Celsius) beyond preindustrial levels, as required by the 2015 Paris Agreement. Many serious repercussions of global warming are expected to manifest at that temperature, according to scientists.

Shifting to low- or zero-emission power generation, such as renewables; changing food systems, such as shifting away from land-intensive animal products; electrifying transportation and developing "green infrastructure," such as green roofs; or improving energy efficiency through smart urban planning, which will change the layout of many cities, are just a few examples of actions.

**HERE ARE SOME OF THE STEPS TO TEACH THE NEXT GENERATION TO PREVENT CLIMATE CHANGE THAT WILL NEED TO BE MADE IN ORDER TO STOP THE CURRENT PACE OF GLOBAL WARMING.**

1. **45 percent reduction in carbon emissions**

Global carbon dioxide emissions must be 45 percent lower by 2030 than they were in 2010. And, by 2075, carbon dioxide emissions must be net zero, meaning that the quantity of carbon dioxide entering the atmosphere equals the amount eliminated.

1. Other heat-trapping greenhouse gas emissions, such as methane and black carbon, should be decreased by 35 percent by 2050 compared to 2010.
2. Emissions would have to drop quickly in all of society's major sectors, including construction, manufacturing, transportation, energy, agriculture, forestry, and other land use.
3. **Remove carbon dioxide from the atmosphere:** In addition to lowering carbon dioxide emissions, the report proposed carbon dioxide removal strategies such as tree planting and carbon capture and storage, which traps carbon dioxide and prevents it from entering the atmosphere.
4. When implemented on a wide scale, most present and proposed carbon dioxide removal technologies might have major effects on land, energy, water, and nutrients. Use 85 percent renewable energy and eliminate coal altogether. Land usage, urban planning, infrastructural systems, and energy consumption will all undergo significant changes, some of which will be "unprecedented in size." Renewable energy sources will have to account for 70% to 85% of electricity output by 2050, according to climate scientists. Coal use should plummet, with coal accounting for less than 1% of global electricity and gas accounting for only 8%.
5. Plant fresh forests in your neighbourhood: Scientists suggest that up to 3 million square miles of pasture and 1.9 million square miles of non-pasture agricultural land be turned into up to 2.7 million square miles of energy crops for biofuel production. By 2050, the UN advises adding 3.9 million square kilometres of forest.

Such huge shifts present significant issues for managing the diverse demands on land for human settlements, food, animal feed, fibre, bioenergy, carbon storage, biodiversity, and other ecosystem services in a sustainable manner. "Land demand mitigation alternatives include sustainable intensification of land use practices, ecosystem restoration, and dietary changes that are less resource-intensive."

Therefore, the exponential rise in the amount of climate change-related fires, storms, ice meltdowns, heat waves, and deforestation, particularly of rainforests, demonstrates that there is no time to waste. Accelerating the initiatives that will spark the adjustments that must be made by international and national policy and decision makers to stop and adapt to the climate crisis is critical. Climate change and air pollution are inextricably linked; both have devastating effects on human health and are caused by anthropogenic emissions from fossil fuel combustion. As stated by international organizations such as the United Nations' Clean Air Initiative, the World Health Organization (WHO), the United Nations Environment Programme (UNEP), and the Climate and Clean Air Initiative.

Given the urgency and complexity of climate change, a worldwide shift is required to address the root causes of the catastrophe. As a result, WMA urges international, national, regional, and provincial decision-makers, including politicians, policymakers, and judges, to recognize the urgency, complexity, and interconnectedness of the essence of climate crisis action and to take immediate action to protect future generations' rights for the sake of climate justice.

Climate change results in significant ecosystem loss, damage, or destruction, as well as cultural harm, with profound consequences for all people on the planet. There is an immediate need for enforceable legal measures to be established in order to ensure the right to live for future generations. To ensure that future generations have the right to survive, binding legal measures must be developed and implemented on a national and international level against polluters who create emissions that cause climate change, as well as contamination of the air, water, and land.

Health professionals have a responsibility to care for, respect, and safeguard human life, as well as future generations' right to live and all forms of the natural living world. WMA believes that everyone, including future generations, has a right to the natural, economic, and social resources that are necessary for living a healthy and productive life, such as clean air, soil, water, and food security. As a result, WMA has a history of being proactive in order to achieve its goals. To ensure that future generations have the right to survive, binding legal measures must be developed and implemented on a national and international level against polluters who create emissions that cause climate change, as well as contamination of the air, water, and land. Health professionals have a responsibility to care for, respect, and safeguard human life, as well as future generations' right to live and all forms of the natural living world. The future generations, has a right to the natural, economic, and social resources that are necessary for living a healthy and productive life, such as clean air, soil, water, and food security. Lastly, few things to teach the next generation to prevent extreme climate change are listed below;

1. Urge the youths to work with relevant bodies in their countries to raise awareness about the need for legally binding sanctions and policies at the national and international level for polluters who endanger future generations' right to life by emitting gases that have been proven to cause climate change and pollution of the air, soil, and water.
2. Urge all youths to face their national governments, policymakers, researchers, and health professionals to mobilize in order to establish and implement comprehensive policies to address the problems caused by industry's and individuals' use of fossil fuels, which include climate change, air, water, and soil pollution.
3. Let the youths face the medical professionals, media, governmental and non – governmental institutions to refer climate change as ‘climate crisis’ and calls the leaders of national, state or provincial, regional, city, and local governments to declare a climate emergency in order to initiate a society-wide action. Moreover, encourage the media to promote the concept and meaning of the right to live for future generations.
4. Advocate for and organize cross-disciplinary efforts to prevent new permits for industrial facilities that utilize fossil fuels and contribute to climate change and pollution.
5. Compel national governments and international organizations, such as the World Health Organization, to implement tougher environmental rules and procedures for evaluating, permitting, monitoring, and controlling new industrial facilities in order to reduce the health impact of their emissions.

**CONCLUSION**

Human activities are altering the climate of the Earth, resulting in increasingly disruptive societal and ecological consequences. Such effects are already causing misery and suffering, and they will continue to do so in the future, in both predictable and unexpected ways. To mitigate these effects, nations around the world have committed to keep global average temperatures well below 2°C (3.6°F) above pre-industrial levels. To reach this goal, global society must reduce greenhouse gas emissions as soon as possible. Global carbon dioxide (CO2) emissions must reach net-zero by roughly 2070 to have a strong chance of limiting warming to a 2°C increase, and by around 2050 to achieve a more safe limit of 1.5°C (2.7°F). Either goal will necessitate a significant near-term shift to carbon-neutral energy sources, the adoption of more carbon-efficient agricultural systems and land-use practices, and increased CO2 removal from the atmosphere via a combination of ecological and technological means.

Climate change will also need society to prepare for and adapt to its negative effects. The required adjustments, if implemented strategically, efficiently, and fairly, will lead to greater wealth and well-being, whereas inaction will be enormously costly to people and other life on the planet.

Because of the combustion of fossil fuels and other human activities during the last century, atmospheric concentrations of greenhouse gases such as CO2, methane, nitrous oxide, and halocarbons have grown to levels not seen in at least 800,000 years. From 1880 to 2018, extensive data show that the global average surface temperature in the atmosphere and ocean increased by around 1°C (1.8°F). The present decade is the warmest in modern civilization's history. Human activities, particularly greenhouse gas emissions, are most certainly the major cause of the observed warming since the mid-20th century, according to significant scientific data. There is no alternative explanation that is backed up by evidence.

Global temperatures will continue to rise as a result of past and future greenhouse gas emissions, according to realistic and improving computer simulations of the global climate, posing increasing hazards to natural and human systems. The amount of warming expected in the coming decades is largely determined by societal decisions and how those decisions impact future emissions.

CO2 emissions must achieve net-zero, which means that the amount people emit into the atmosphere must be matched by efforts to accelerate CO2 removal by natural or artificial means. Simulations show that keeping global warming to 1.5°C, including the 1.0°C already experienced, will need attaining net zero CO2 emissions around 2050, or sooner if heat diminishes nature's ability to absorb and retain carbon. Significant reductions in other greenhouse gas emissions, as well as improved CO2 removal from the atmosphere, are also required. Sea level will continue to rise for hundreds of years even if global temperatures stabilize, albeit at a considerably slower rate than if warming continues.

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