

COMMITTEE GUIDE

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Presidents' Letter

Dear Delegates,

We are delighted to extend you a cordial greeting to the twenty-first version of CCBMUN, and we are honoured to have you as a part of the United Nations Environment Programme Committee. Our names are Valentina Martínez and Mariana Moreno, students in 10th and 11th grade at Colegio Americano and Colegio Berchmans. As your presidents, our highest goal is to provide you with the best UN model experience and be a source of help, not only in understanding the guide and procedures, but also as a guide for you to become an exceptional delegate. We truly believe that MUN is a valuable and unforgettable life experience.

Both of us have participated in multiple models in the past, so we can relate to you as delegates. The fear and nerves are feelings that we have experienced, so we expect that you can find support in us, as we are here to help you increase your argumentation and debate skills. We want to accompany you to take your research to the next level, and we encourage you to make your finest endeavour, and to have the greatest time sharing your thoughts and defending your ideals during the committee. Be aware that the MUN community is more than just debating and finding resolutions, it is a place to make new friendships and to expand your social circle.

We strongly believe that you will surpass your own expectations as a delegate, by researching in detail as much as possible, and using that research to your advantage. As your presidents, we will provide you with all the resources and guides you need in order to complete this process successfully. We are here to empathise with you and to assist you, not only through the three days of the model, but also before the model begins.

Lastly, but not less important, since UNEP is a middle school committee, we must mention that experience and a complete knowledge of procedures are not the main requirements to be an excellent delegate; the only aptitude you need is passion - the rest will arrive along with your experience! We are thrilled and excited to meet you, and have you as our delegates; as it is our first time being presidents, we really hope to reach your expectations. Keep in mind that we are here to support you, so if you have any questions do not hesitate to contact us via the committee email.

Yours sincerely,

Valentina Martínez & Mariana Moreno (UNEP Chair)

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Topic 1: 15-minute cities

I. History/Context

This term refers to the planning structure of a city in which everything is within a 15-minute walking or cycling distance. The concept of the 15-minute city has revolutionised modern urbanism, design and architecture. This idea has been popularised since its debut in 2016 by Carlos Moreno, an urban planner based in Paris, and was further promoted by the mayor of Paris, Anne Hidalgo; however this was not the first time that this idea made an appearance.

The origins of the 15-minute city date back in the late nineteenth and early twentieth century, when citizens created movements with numerous initiatives concerned with a safe, healthy and accessible society. In 1898. The English town planner, Ebenezer Howard, suggested that “Garden Cities” could be built to give people a better quality of life as many cities at the time of the Industrial Revolution were dirty and crowded with little green space for the citizens.



Figure 1: Weylyn Garden City

In the 1920s, Clarence Perry, an American town planner, came up with the idea of “neighbourhood units” . The idea of these units was that everyone would know each other

and have a small community in which all their basic needs would be met. Criticisms of these approaches point out that in the 21st century, there is often not enough space to build these types of cities, and often the house prices go up in such a way that people with lower incomes cannot afford to live in them.

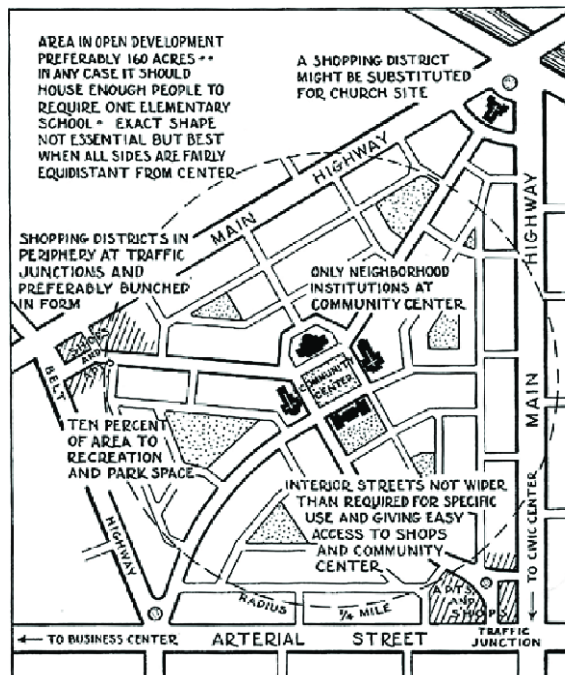


Figure 2: The Neighborhood Unit

According to UN reports, two-thirds of the ten billion people who will occupy planet Earth in 2050 will live in populated regions (United Nations, 2018) . Up until the 1950s, about 70% of people lived in the countryside rather than in urban areas, but now, in the modern age, about fifty-six percent of the world's population already lives in cities, and those numbers continue to rise.

The 15-minute city project aims for everyone to have access to supermarkets, stores, schools, gyms and common areas. Its main objective is to prioritise the well-being of the citizens by reducing fundamental problems such as traffic congestion (which at the same time may affect global warming). This program is mainly inspired by the "UN-Habitat", which states that apparently seventy-eight percent of global energy consumption is

consumed by large cities, and this produces more than sixty percent of greenhouse emissions, which is one of the main terms of discussion in the UNEP.

The repurposing (re-adaptation) of spaces is the main concept for their operation; Buttner, B (2021). Benjamin Buttner, an expert in mobility, proposes that for the creation of these sustainable cities, places such as cinemas, parks, and other social places should be moved where the people are, and not the other way around.

The proposal of a transformative green city has captured the imagination and interest of several countries because of its modern benefits, including lower transportation costs, where there are fewer cars and more spaces for cyclists, as well as safe streets for children and people with mobility limitations. "Cars are a problem, at least in urban centres, they take up too much space and can get in the way of active mobility", Buttner declares.

II. Current Situation

As already mentioned, the concept of 15-minute cities encompasses more convenient ways of carrying out daily life as services are accessible in less than 15 minutes. Therefore, its structure amounts to a human-centred design. According to its ideology, this plan implies that designers look at where the individual lives and where he/she needs to get to, and then they look for a re-adaptation of the spaces to make this possible.

Carlos Moreno, highlights some characteristics of this city framework:

Ubiquity: This concept takes into account making cities affordable and available to individuals who wish to reside in them. It refers mainly to the idea that cities should be inclusive and offer opportunities to their habitants, regardless of their economic status or background. By making affordability the main objective, cities can guarantee more benefits and amenities to a larger population.

Proximity: This point proposes that the various locations in a city be located as close to each other as possible, reducing distances between key or primary destinations, such as workplaces, schools, supermarkets and more. The result would be to promote walkability and improve convenience. Proximity aims to interconnect communities, especially neighbourhoods, so that residents can easily meet their daily needs.

Diversity: This refers to the easy acquisition of amenities and services with proximity to areas of residence. This includes essential assistance such as healthcare, education, supermarkets as mentioned above, as well as recreational activities that seek to intensify culture. By ensuring a diverse mix of services, cities can increase the quality of life of their residents.

Density: In Moreno's framework, it is primarily seen as a measure to support a diverse range of businesses, thereby creating an environment that reduces the need for long-distance commuting. (Indicates the concentration of residents, activities, shops/businesses in a proper area)

For more than a decade, the issue of modern cities was assumed to have been solved by constant technological advancement, but Moreno has demonstrated serious concern about this idea. "The solution is not only to migrate to electric cars or that buildings are more energy efficient, but to reduce travel to meet the needs of people. There is a lot of mono functionalism in buildings (they are only given one use), so they stay closed longer than open."Moreno, C (2021)

The 15-minute cities seek to exploit the maximum use of buildings and spaces, as Moreno mentions: "Cities should not have a centre of attraction, but should function as a mesh, be decentralised, with buildings that provide multiservices; that is, that people can live, work, access the theatre, education, health and public space in the same place." Moreno, C (2020) By generating less mobility and displacement by citizens and their cars, the carbon footprint would be reduced, and the local economy would even improve thanks to mobility, a concept that has been highlighted as important in this project due to the pandemic.

In addition to the recently mentioned concepts, Moreno presents the "Happy Proximity" where he mentions 6 key elements for the city's adaptation:

- Housing in decent conditions.
- Access to work, Moreno C, (2022) "in which we do not have to lose our life to earn it with huge displacements that separate us from our family, friends and generates a situation of permanent stress" , clarifies Moreno.
- Doing shopping and regenerating local commerce, through stores, markets, among other spaces.
- Easily access physical and mental health services.
- Education and cultural spaces such as cinemas, theatre, street art to create an urban culture.
- A public space where the pedestrian is the priority.

Advantages

As mentioned above, since the pandemic, proximity has become one of the biggest common issues among citizens, and although 15-minute cities appear to be full of advantages, the experience would not be the same for everybody. Here are some of the most known advantages and disadvantages of this project.

More accessibility: 15-minute cities aim to find accessibility for all types of public, from schools to entertainment and work, which are the main reasons why people choose to live in cities.

Reduction of vehicular dependency: By having more proximity and/or closeness between neighbourhoods, it is expected to reduce the use of automobiles and thus reduce carbon footprint, even getting people to use more bicycles and walk short distances, which are one of Moreno's main principles.

This strategy hopes to take better care of codependent people, such as children and the disabled.

When it comes to green spaces, the phrase that immediately comes into the discussion is "air pollution". According to the World Health Organization, outdoor air pollution is responsible for an estimated 4.2 million premature deaths each year. By creating neighbourhoods where people can walk or bike to work, the need for cars is reduced, or even eliminated. This project aims to change the way we think about mobility and transportation, and it might require a large investment in infrastructure, but it is worth it for a future with less air pollution and subsequent deaths. (World Health Organization, 2022)

More health and well-being: By being able to actively move around, citizens are expected to have improved physical and mental health, cleaner air, and even more access to healthy food and green spaces.

Disadvantages

Gentrification: By having more "equity" and less mobility, people with a lower economic status could fall prey to gentrification, where citizens with higher incomes begin to change the demographics of the place, and the poorer inhabitants will not be able to afford to live in the place, leading to them actually having less mobility and space in parts of the city.

Drop in living standards: Another problem that these modern cities could cause is that people of low income, in places with low density could experience a quite noticeable drop in their transportation services. In most cities, people on low incomes already tend to live in certain areas, often in overcrowded conditions. A 15-minute city would mean that they were

even more segregated than before as they would be expected or encouraged to stay in their own section. Often the facilities in these neighbourhoods are not the best, or they may not even be present, for example, large well-equipped hospitals.

Strategy for social control: some people say that this project seeks to make them slaves of the elite. For example, In February 2023, at least 2000 protesters in the UK took to the streets with placards and slogans calling out to society about "the new order" while shouting "wake up, people" (Rebel News UK, 2022). During the protest people could be heard expressing views such as, "This is a dystopian nightmare. I don't want to be confined to a life 15 minutes away from my apartment. It's a claustrophobic nightmare. I don't want to spend any more time at home and in my immediate local area. Going to different places every day (whether by car or train/tube/bus) is what makes my life worth living." (Rebel News UK, 2022)

Higher surveillance: the idea of keeping people in one part of the city involves higher surveillance to ensure that they do. In parts of China, for example, people are constantly monitored as they move around the cities, and this is a way of life that many people are unwilling to follow.

Difficulty in adapting current cities to 15-minute zones: many cities have been designed or changed over the years to mean that cars are the only practical means of getting around. Changing to cycling or walking involves a huge increase in investment in public transportation, which is not always feasible. Some city councils in the UK, for example, are simply blocking roads and charging high fines if people take their cars to different zones. People now have no way of getting to their destinations easily, but the city councils are not creating any new public transport systems to make moving from place to place easy and convenient. This problem is of utmost importance since it is affecting the mental health of citizens, when the project seeks to improve it.



Figure 3: Frustrated motorist drives onto pavement to get around barrier

Examples of high promotive countries:

One of the most outstanding examples and the main head of this project is Paris, the capital of France, where its main objective was the de-carbonization of the city, but ended up creating a project that presents a perspective to a healthier modernity.

Another of the most relevant countries is Sweden, where the aim is that neighbours can make decisions about the use of public spaces in the city, and present them to the government. It is also one of the first countries to take space away from automobiles and give it to urban areas.

In the United States, Portland is one of the first cities to lead this project, but for the moment it excludes work areas and seeks to achieve this goal before 2030.

Colombia also has this plan, the city of Bogota, capital of this country, seeks to give more space to pedestrians and achieve areas where the meeting between neighbours is

encouraged, thus promoting social skills, thus seeking to boost the commercial and cultural sector.

Spain, for its part, also seeks to close traffic, and is in search of the creation of a system of "super blocks" where more green spaces are created, and dual use is given to buildings.

Sustainable goals and 15-minute cities



Figure 4: United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a number of objectives which are expected to be met by the member countries of the United Nations, which take into consideration a high number of current issues, from education to environmental and social problems. The idea of the goals is to promote a more sustainable and equitable future for all citizens.

The 15-minute cities are indirectly part of these goals, since they both focus on sustainability and the quality of life of people living in urban areas, and as mentioned before, the number of people living in cities is increasing massively.

In Goal 11: Sustainable cities and communities, where resilience and sustainability are the pillars for inclusion and security. Therefore, the 15-minute cities seek to create or adapt cities so that there is no more car dependency and more walking and cycling is encouraged, as well as providing amenities in close proximity.

In a more detailed UN report, Goal 11 also looks for ensuring accessibility to sustainable and affordable transportation for all.

Other characteristics that the UN and this project agree on are the health and well-being of citizens, both mental and physical, as well as the reduction of inequalities, and although the 15-minute cities are under constant rigorous analysis with respect to inequality, the best solution is being actively looked for. Finally, goals 13 and 15 look for climate action, which 15-minute cities provide through lower use of transportation and better use of the local environment.

III. Key points of the debate

- Sustainable societies and the UN and sustainable goals
- Global warming and air pollution
- Re-adaptation of urban spaces
- Opinions and protest
- Applicability and feasibility

IV. Guiding questions

1. Is your country intending to start 15-minute city projects? If so, how?
2. What factors does your country take into account to implement this concept?
3. If your country is not planning to implement 15-minute cities, what are the reasons for this decision?

4. How have citizens reacted to the idea of 15-minute cities or to the measures that have been already taken to implement these changes?
5. If your nation is planning to introduce 15-minute cities, what are some of the main obstacles to implementing this plan?

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Figure 4:

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Topic 2: *Geoengineering*

I. **History/Context**

Climate engineering and geoengineering are terms used to describe technological techniques used to influence the Earth's temperature. These techniques cover a wide range of theoretical strategies intended to slow down or possibly stop climate change. These techniques involve the manipulation of the climate of the Earth to bring out the envisioned outcomes. However, it is crucial to keep in mind that the majority of these approaches are still in the phase of development and research, so it's vital to carefully assess the potential hazards and outcomes. To truly grasp the significance of geoengineering in relation to climate decision making it is crucial to consider its context. The historical narrative reveals that the concept of manipulating the climate has been intricately intertwined with the issue of CO₂ and its impact on the climate system. As it was believed that conventional mitigation techniques may not be enough to keep global warming to safe levels, the idea of climate engineering was born.

Weather modification had long been a topic of discussion in the USSR before World War II. Work on cloud modification went outside of the lab after Leningrad's Institute of Rainmaking was founded in 1932, and airborne cloud seeding experiments with calcium chloride started in 1934 and continued until 1939. Testing of cloud seeding with dry ice (1947) and silver iodide (1949) began as soon as the war ended. Soviet interest in modifying the temperature and weather peaked in the 1950s and the early 1960s. For instance, it has been claimed that a single experiment conducted in the winter of 1960–1961 dispersed clouds across 20,000 km².

In the USA, a commercial renaissance in weather manipulation began with the Schaefer & Langmuir team's 1946 discovery of cloud seeding at the General Electric research labs. Private cloud seeding operations targeted an area that was 14% the size of the lower 48 states' landmass in 1951 (ACWC56) and within five years had total yearly receipts of \$3 to \$5 million. The boom quickly drew the attention of the government, leading to the



establishment of the Advisory Commission on Weather Control by Congress in 1953, the first congressional hearings in 1951, and the first court case regarding culpability for cloud seeding in 1950. The US government used weather manipulation techniques in the Vietnam war, trying to provoke the rainy season so that the enemy would not be able to function properly.

Geoengineering has always been controversial, as public perceptions of new and developing fields of science and technology are influenced by a variety of variables. There are worries about security, governmental honesty, the equitable distribution of possible benefits, and the accidental negative effects resulting from the new technologies. All of these play a role in determining the public's opinion, and as geoengineering is only now becoming more known to people, there is still speculation about the consequences of using this type of technology.

V. Current Situation

Some scientists believe that the acceleration of global warming is out of control, affecting agricultural production, damaging ecosystems, causing floods, storms and wildfires, along with a higher likelihood of droughts. They say that this affects all species, which are in danger as a result of these events, and that the traditional measures to prevent them, such as waste reduction and the use of renewable energy sources, are insufficient to stop them all. They propose that, if we are to save the planet, we must find more radical ways to keep the Earth from warming.

Some of the methods to alter the temperature of the earth proposed by geoengineers are:

Solar Radiation Management technique: this seeks to reduce the quantity of ultraviolet radiation impacting the planet's surface by reflecting some of the energy from the sun toward space. To temporarily produce a worldwide sunshade, it has been suggested to release reflecting particles to the atmosphere's upper layers, like sulphate aerosols. This



would result in an impact on temperature similar to what is seen following volcanic explosions. The White House is pushing ahead research to cool Earth by reflecting back sunlight (2022).

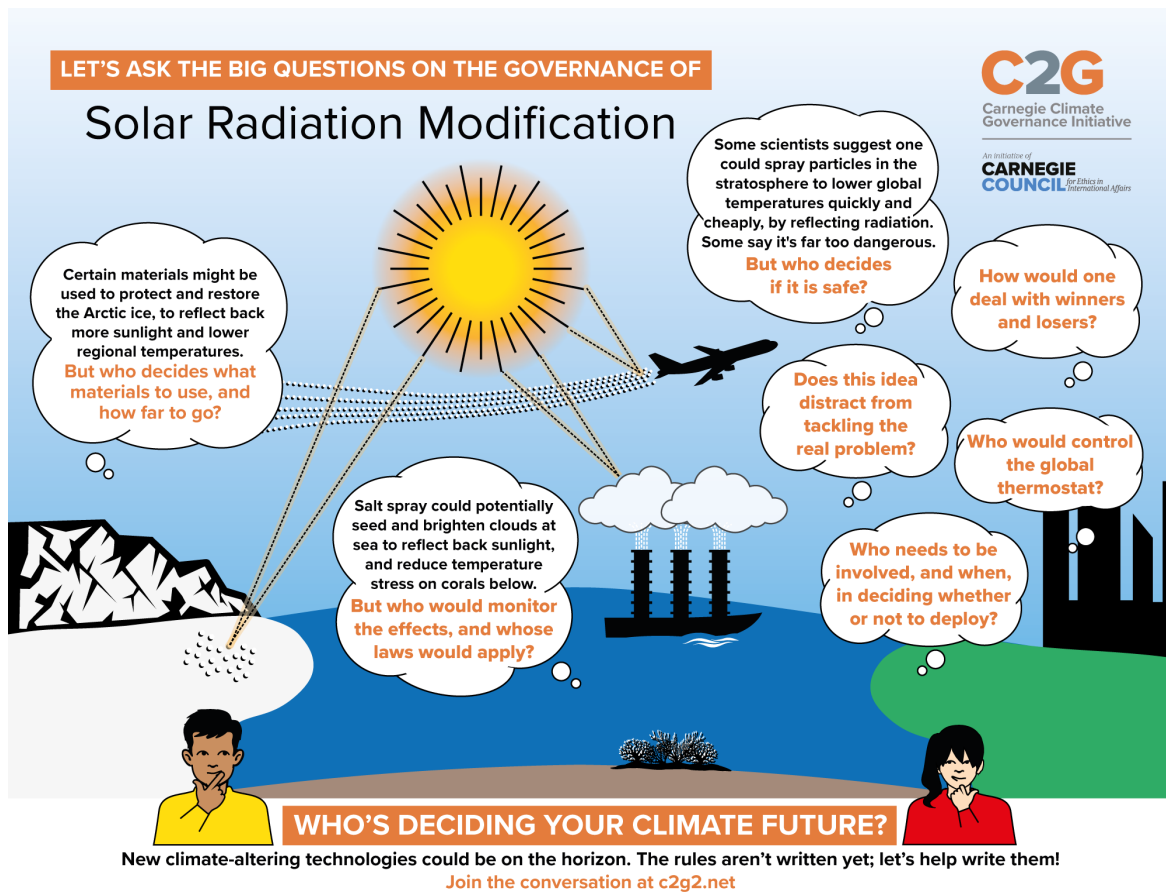


Figure 1: Solar Radiation Management

Cloud brightening: the idea is to increase the reflectivity of low-lying clouds near the oceans, since the earth cools down when clouds can better reflect sunlight. This would be achieved by spraying small saltwater particles into the air so that the clouds' ability to reflect sunlight is increased, which could cool the planet.

How cloud brightening works

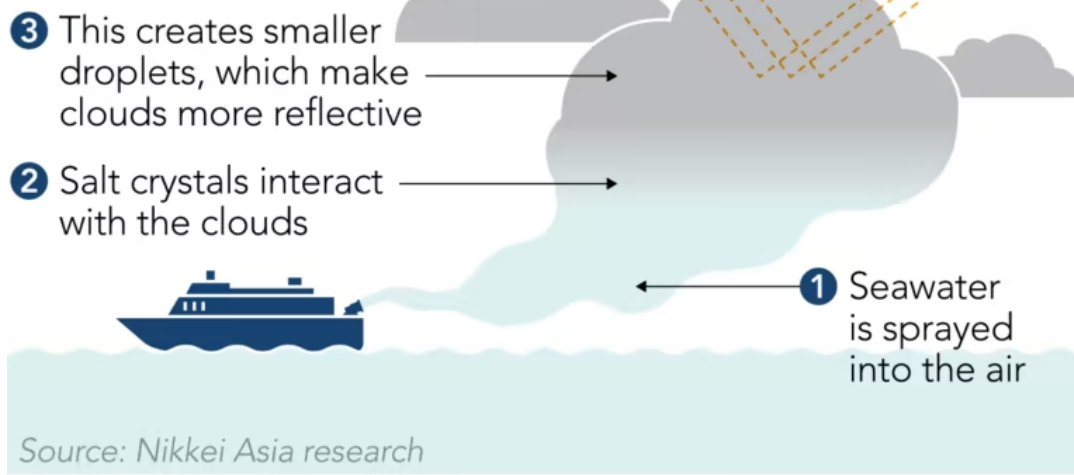


Figure 2: Cloud Brightening

Fertilising the oceans with iron: some scientists recommend fertilising the oceans with iron, as iron promotes the development of phytoplankton. These tiny plants absorb carbon dioxide during photosynthesis and live in the sea. It has been suggested that adding iron to certain ocean regions can boost phytoplankton growth and increase the amount of carbon dioxide absorbed by the environment.

Phytoplankton are essential for the carbon cycle because they take in carbon dioxide while photosynthesis is occurring. Phytoplankton can descend to deeper water levels after they die, potentially storing carbon for a long time. According to research, promoting phytoplankton development with iron fertilisation may result in higher carbon sequestration, which would assist to slow down climate change.

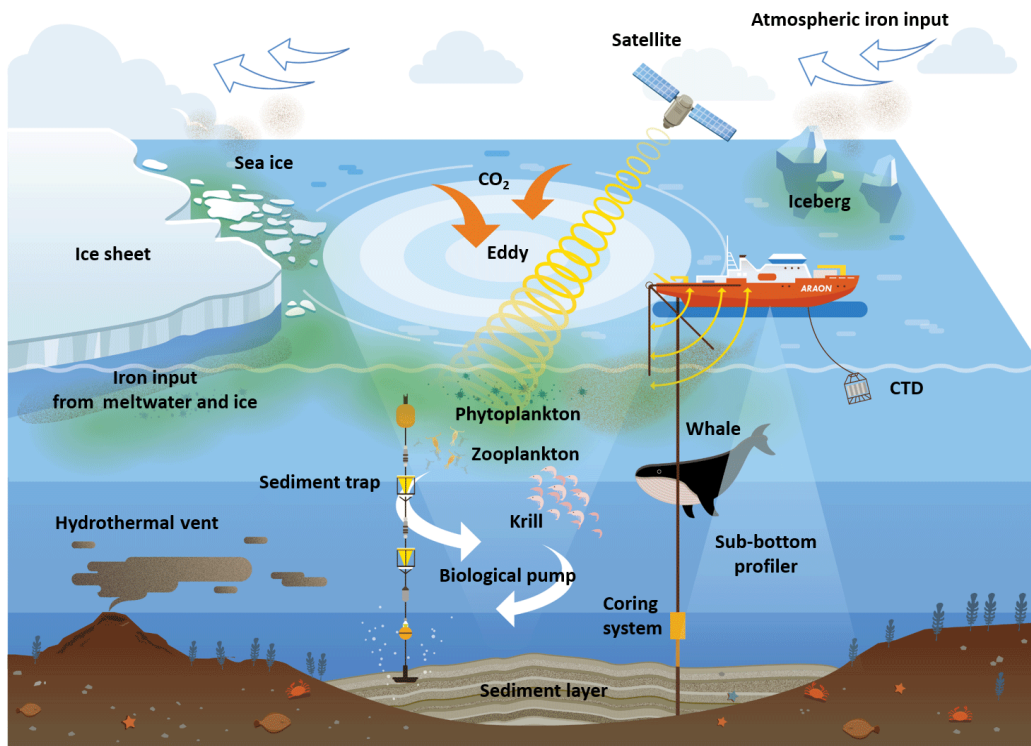


Figure 3: Fertilising the oceans

Artificial trees: sometimes referred to as direct air capture (DAC) or carbon capture and storage (CCS) trees, these are installations made to absorb atmospheric carbon dioxide from the environment. They remove CO₂ from the atmosphere and retain it for a considerable amount of time. These devices aim to replicate the process of photosynthesis that occurs naturally in trees.



Figure 4: Artificial trees (DAC)

Environmental and economic consequences of geoengineering

All the geoengineering solutions raise their own environmental concerns:

Solar radiation management (SRM) could cause degradation of the ozone barrier, air pollution, or other long-term effects. Inconsistent regional effects on weather patterns could result from SRM procedures. Ecosystems, agriculture, and water supply may be impacted by modifications to rainfall patterns, weather patterns, and heat distributions.

It is difficult to foresee the complete spectrum of effects due to the complicated nature of the Earth's climate system. Some unexpected side effects could include ozone depletion, altered atmospheric chemistry, or unanticipated consequences on wildlife and societies as a whole.

Cloud brightening techniques may alter cloud characteristics in ways that are unexpected. Regional climates, weather patterns, and ecosystems may be impacted by shifts in precipitation patterns and solar distribution.

Interfering with cloud processes raises moral concerns regarding the possibility of manipulating natural systems and the potential repercussions on areas downwind that could experience changed rainfall patterns.

Fertilising the oceans: this still needs to be carefully considered because long-term effects are unknown. The marine food chain can be upset by changing phytoplankton concentrations, which can also have an impact on other creatures that rely on them for their sustenance.

Ocean iron fertilisation may cause nutrient proportion imbalances, such as a rise in nitrogen-to-phosphorus percentages, which may affect the functioning of ecosystems and help some phytoplankton species over others.

Artificial trees: manufacturing, setting up, and sustaining artificial trees all need resources and energy. Environmental effects from fabrication and preservation procedures could include power consumption, mining for resources, generation of waste, and possibly pollution. It is critical to assess the entire environmental effect of artificial trees to make sure the advantages exceed the disadvantages.

Apart from the environmental consequences of all these techniques, there are also economic downsides. The study, development, and implementation of climate engineering techniques can be very expensive. However the price depends on the particular method, the extent of the realisation, the required technology, and the infrastructure needed. Some techniques could need major expenditures in technology development, installation structure, and regular upkeep.

Other theories of Global Warming

Not all climate scientists agree that human activity is having a significant effect on the warming of the planet. Instead, they say that the changes in Earth's temperature are due to cycles of the sun and the relative positions of the Earth with respect to the sun.

Over time, there have been different periods of cold and warm eras, for example, the Ice Age in prehistoric times and the little ice age in medieval Europe. These changes were not affected by humans in any way, they were just a natural process. It is not really possible to compare methods of measuring the Earth's temperature over the centuries, and nowadays this measurement is often done in cities, which tend to have higher temperatures than the surrounding countryside.

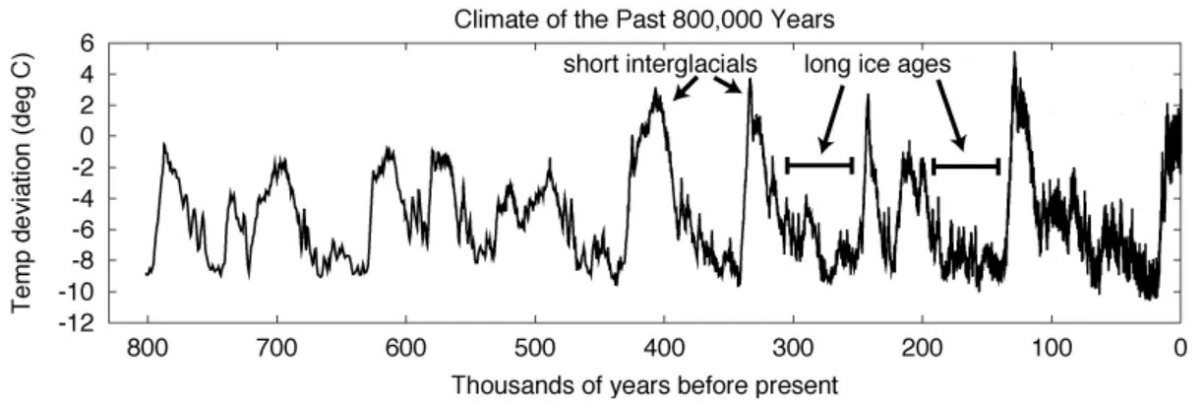


Figure 5: Temperature of the Earth over time

Additionally, natural phenomena on Earth tend to have significant effects on weather, but these are not taken into account by global warming activists. For example, the Hunga Tonga-Hunga Ha'apai underwater volcano erupted in January 2022, causing effects in space as well as on Earth.

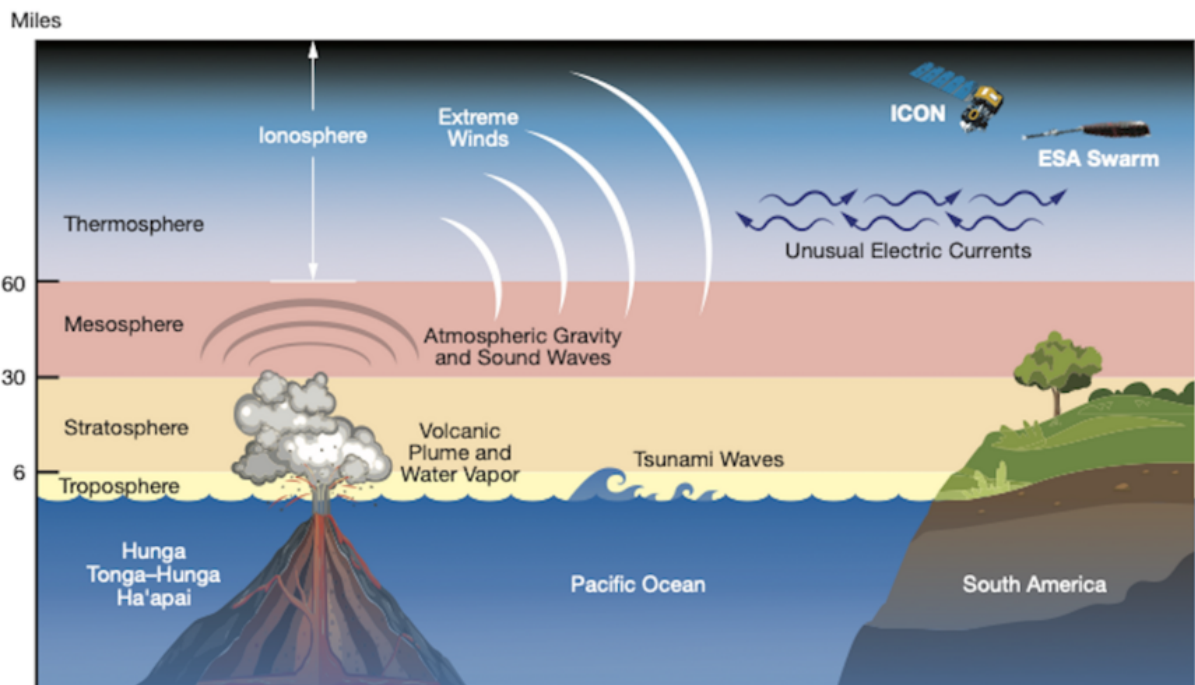


Figure 6: Hunga Tonga-Hunga Ha'apai volcano eruption

Climate scientists who do not agree with anthropogenic (human-caused) global warming are often labelled as conspiracy theorists. However, many of these scientists are highly qualified in their field. The following link will give you an alternative view of climate change:

[▶ The Great Global Warming Swindle - Full Documentary HD](#)

Impact of the United Nations

The United Nations might act as a platform for a global discussion on geoengineering by bringing together specialists, decision-makers, and investors from all around the globe to discuss it. This involves organising conferences to promote debate, share information, and exchange viewpoints on geoengineering's potential advantages and dangers.

The UN might assist in the creation of international regulatory frameworks on geoengineering. This entails fostering conversations on the moral, legal, and social implications of geoengineering, while also attempting to establish universal standards and principles that will direct ethical study and potential future use.

Given the complexity of geoengineering, it is essential to establish a wide international consensus, have open debates, and guarantee the involvement of all pertinent parties. The UN could set aside funds and other assets to support geoengineering-related studies and development initiatives. This may entail developing grant programs, collaborations with academic institutions, and joint research initiatives.

Processes for including the public in discussions on geoengineering could be facilitated by the United Nations. By doing this, it would make sure that many viewpoints, such as those of local communities, indigenous communities, and organisations from civil society. Different theories of climate change should also be considered, including the idea of adapting to climate change, rather than trying to change the climate itself.

VI. Key points of the debate

- Effectiveness and unpredictability
- Ethical considerations
- Economic consequences
- Theories of climate change
- International Cooperation

VII. Guiding questions

1. Does your country have an active participation in geoengineering research?
2. Does your country implement traditional alternatives to control the temperature of the environment?
3. How would your country be affected by the possible risks of using geoengineering?
4. What dangers and worries does your country identify with the technologies that change the Earth's temperature, if any? Does your country consider that the methods proposed to alter the Earth's temperature are worth the risks?
5. In which way could the public's awareness and education influence the decision to implement technologies to alter the Earth's temperature?
6. What measures would your country suggest to encourage global collaboration in the investigation and implementation of these technologies?

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