The United Nations Economic and Social Council. Commission on Sustainable Development (ECOSOC CSD)

Study Guide

Singularity Foundation Model of United Nations, SMUN203

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Welcome letter

It is with great excitement that we welcome you to this year's S'MUN2030 as well as to the Economic and Social Council Commission on Sustainable Development. We are glad that you decided to participate in the Model United Nations. This shows your engagement with one of the greatest concerns of our society: sustainability and human rights.

Our world has accomplished wonderful advances lately. Within one generation, people affected by poverty have been reduced by more than a million. However, many risks and new challenges have increased jointly with the improvements.

We are said to be the last generation who can prevent the worst consequences of climate change happening, and the only way to cope with these is by increasing ambition, cutting emissions and holding leaders accountable.

The changes in the world that we are currently facing can not be tamed individually by each country, and this is why the UN comes into action. The UN is a platform for change for the most pressing global issues. It works on worldwide concerns such as climate change, growing inequality or the harnessing of new technologies.

In 2015, the Sustainable Development Goals were introduced, representing a globally-agreed plan for dignity, peace and prosperity on a healthy planet. 17 goals were introduced. In order to achieve them, all nations must cooperate and provide solutions. Therefore, we will be collaborating for three days and raising further ideas that countries across the globe could implement to tackle the important concern that will work as our topic of discussion: "*Achieving sustainability and reducing emissions through the development and regulation of transport*".

Chairs Introduction

Bearing in mind this global framework it is time for us to introduce you to ourselves. Ferran Àlvarez, Joan Llonch and Anna Peláez, we are going to co-direct the committee during the whole conference. Ferran has been an excellent delegate for more than five years, since he was 15 he has had the opportunity to attend MUNs across Europe and he has become an expert on the field. Joan also joined the Model United Nations world more than a year ago. When he entered the university, he directly applied for the UNSA

association in Barcelona because he had been passionate about international relations from an early age. Last but not least, Anna has a large experience both in performing and chairing in MUNs. During her first years attending Models of United Nations she won several awards as an outstanding delegate and recently, she has had the opportunity to join conferences such as AyiMUN 2020, in Malaysia, as a committee director.

We would really like to thank you for joining us and standing up for the rights of all humanity. We are all looking forward to working hard with you and enjoying S'MUN 2030.

Chairs of the ECOSOC CSD

Introduction to the committee:

The United Nations Economic and Social Council Commission on Sustainable Development (ECOSOC CSD)

The Economic and Social Council (ECOSOC) is the United Nations' central platform for reflection, debate, and innovative thinking on sustainable development. It is one of the 6 main units of the UN formed by its charter in 1964. Composed of 54 members, its main purpose is to deal with questions such as economy, society, cultural issues, or sustainable development. The United States, United Kingdom, Russia, and France give financing to the vast majority of ECOSOC's spending limit, which is the biggest of any UN subsidiary body. Its current president is Munir Akram, who has been in office since 23 July 2020.

ECOSOC focuses on achieving sustainability in projects conducted by the different entities, understanding sustainability by three main areas: economical, social, and environmental. It connects with a wide assortment of partners – policymakers, parliamentarians, academics, major groups, establishments, business area agents, and other 3,200+ enrolled non-legislative associations – in a beneficial dialogue on sustainable development through an automatic cycle of gatherings. Crafted by the Council, this cycle is guided by an issue-based methodology, and there is a yearly topic that goes with each automatic cycle, guaranteeing a supported and centered discourse among different partners.

ECOSOC conducts studies; figures goals, suggestions, and shows conventions for consideration by the General Assembly; and coordinates the activities of different UN programs and concentrated organizations. The vast majority of ECOSOC's work is conducted in functional commissions on subjects, for example, human rights, drugs, population, social development, statistics, the status of women, science and innovation; the committee additionally regulates provincial commissions for Europe, Asia, and the Pacific, Western Asia, Latin America, and Africa.

The ECOSOC CSD (Commission on Sustainable Development) is a body of ECOSOC which was formed in 1992. It is also called the Earth Summit. The Commission was responsible for reviewing progress in the implementation of Agenda 21 and the Rio Declaration on Environment and Development. CSD is confirmed to be the UN's main forum focusing on global sustainability.[1]

Sustainable Development Goals

The Sustainable Development Goals (SDGs) were set in September 2015 during the United Nations Sustainable Development Summit (1). World leaders gathered to reach a consensus on developing a universal agenda able to transform our world for the better of the people and the planet. Nevertheless, these established goals weren't something new for the United Nations and its members, as they followed the path established first by **Agenda 21** and the Earth Summit of 1992, continued later through the 2000 **Millenium Development Goals** (2) and now with the 17 Sustainable Development Goals.

The SDGs are also known as Global Goals, part of the **2030 Agenda**, and, as said in the Resolution adopted by the General Assembly on 6 July 2017, "a blueprint to achieve a better and more sustainable future for all". Each SDG is focused on tackling one of field of work with the aim to end all forms of poverty by 2030, however each goal is interlinked with others. Our Committee, the ECOSOC, will be focusing on the **11th Sustainable Development Goal: Sustainable Cities and Communities**, as the different nations will debate on Transport, Transport regulation and moving towards sustainability.

[1] The Editors of Encyclopaedia Britannica. Encyclopædia Britannica, Encyclopædia Britannica, Inc. 22 July 2013. *Economic and Social Council*. [Link]

SDG 11 aims to tackle how to solve the **massification and urbanization of the world**. Because of this rapid urbanization, humans are suffering consequences such as the worsening of air pollution, bad water and sanitation systems, and overcrowded urban areas lacking basic services. Furthermore, due to the continuous increase of population, **there is a need to find transport services** that are sustainable in the long term and that do not negatively affect our ecosystem and natural habitat, the Earth. The goals which have to be reached by the beginning of 2030 in this SDG are (3):

- By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
- Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.
- By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and

implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

- Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.[2] [3] [4]

The topic discussed

"Achieving sustainability and reducing emissions through the development and regulation of transport"

Key Concepts

For the proper understanding of the topic discussed we first recommend you to deeply understand the following concepts, defined by Climate Reality as the "Key terms you need to know to understand climate change":

- *Greenhouse gases:* The gases act like the heat trapping glass in a greenhouse, thus the name. A greenhouse gas is a chemical compound found in the Earth's atmosphere, such as carbon dioxide, methane, water vapor, and other human-made gases. These gases allow much of the solar radiation to enter the atmosphere, where the energy strikes the Earth and warms the surface.
- *Emissions:* Greenhouse gases released into the air which are produced by numerous activities, including burning fossil fuels, industrial agriculture, and melting permafrost, to name a few. These gases cause heat to be trapped in the atmosphere, slowly increasing the Earth's temperature over time.
- *Global warming vs climate change:* Global warming is an increase in the Earth's average surface temperature from human-made greenhouse gas emissions. Climate change refers to the long-term changes in the Earth's climate, or a region on Earth, and includes more than just the average surface temperature. For

[2] United Nations. 2015. *Summit Charts New Era of Sustainable Development* [Link]
[3] United Nations Development Program. 2000. *Millennium Development Goals*[Link]
[4] United Nations. *Take Action for the Sustainable Development Goals* [Link]

example, variations in the amount of snow, sea levels, and sea ice can all be consequences of climate change.

- *Fossil fuels:* Fossil fuels are sources of non-renewable energy, formed from the remains of living organisms which were buried millions of years ago.
- *Renewable energy:* Energy which comes from naturally replenished resources, such as sunlight, wind, waves, and geothermal heat.
- *COP and UNFCCC:* The United Nations Framework Convention on Climate Change (UNFCCC) is an environmental treaty which nations joined in 1992, with the goal of stabilizing greenhouse gas concentrations in the atmosphere at a level which would prevent dangerous human interference with the climate system. The Conference of the Parties (COP) to the UNFCCC is a yearly international climate conference where nations assess progress and determine next steps for action through the UNFCCC treaty.
- *INDC:* "Intended Nationally Determined Contribution." In preparation for the UN climate talks later this year, countries have outlined what actions they intend to take beginning in 2020 under a proposed global climate agreement. These plans are known as INDCs, which will play a big part in moving us forward on the path toward a low-carbon, clean energy future.
- *IPCC:* An acronym for the Intergovernmental Panel on Climate Change. First set up in 1988 under two UN organizations, the IPCC surveys the research on climate change happening all around the world and reports to the public about the current state of our scientific knowledge.
- *Mitigation:* An action which will reduce or prevent greenhouse gas emissions, such as planting trees in order to absorb more CO2. It can also include developing and deploying new technologies, using renewable energies like wind and solar, or making older equipment more energy efficient.[5] [6]

History and Introduction to the Topic

[5] Project, The Climate Reality. 6 Nov. 2019. *Key Terms You Need to Know to Understand Climate Change*. [Link]
[6] United Nations. 1992. *United Nationd Framework Convention for Climate Change.* [Link]

Transport is a system or means of conveying people or goods from place to place. It is a large aspect of the society and its successful development. The world's population is growing, particularly over the last 100 years global population has more than quadrupled, thus more and more people have to rely on transport in their daily life. Oil powered vehicles are still being manufactured and used by the world's population despite cleaner and cheaper vehicles being available on the market. The emissions caused by commercial plane travel are steadily increasing and affecting the climate. Trucks are still widely used for long-range transportation in most countries. The world needs sustainable transport systems in order to act upon climate change and find solutions to secure the transportation of people and goods while not increasing climate change effects and the increasing emission of greenhouse gases.

[7]Transport allows for communities to grow and develop, and it is considered a basic right to individuals. Transport has to be reliable and sustainable for both people and goods. It drives development and allows for tourism, trade and overall economic growth. People are able to access many things located in different places: jobs, goods and services. Sustainability is one of the main aspects of transport which have to be evaluated because without sustainable transport, sustainable development it is not possible to allow humanity to preserve the Earth for future generations. The alternative ways of powering viable and affordable transport options have to be considered jointly with urban planning. When done, there is a chance to make communities faster and deal with other issues such as traffic congestion, noise and air pollution.

It is also important to consider that nowadays petroleum and its derivatives are the source of energy mostly used for transportation (91% of the total US transportation sector used petroleum products as the energetic source[8]) either of goods or people. Considering that petroleum is a non-renewable energy, it is expected that current reserves won't last till next century, and because of that oil prices' will increase and the control of the different reserves will provoke political instability, apart from environmental effects (which is one of the main concerns).

[7] Our World in Data, Max Roser. 2019. *Two centuries of rapid global population growth will come to an end* [Link]
[8] Ecotricity. *When will fossil fuels run out?* [Link]

The effect of transport on nature is huge because it is a significant user of energy and consumes a great part of the world's oil. Most vehicles which were and still are used in some countries for commercial transportation (planes, trains, over-the-road trucks, and ships) along with our personal automobiles run on fossil fuels. When fossil fuels are consumed, they release carbon dioxide (CO2) and other greenhouse gases into the atmosphere, further contributing to climate change, or global warming.

Millions of years ago, CO2 was trapped during the formation of the fossil fuels (i.e., coal, oil, and natural gas) we consume today. With the start of the industrial revolution and the ever increasing use of these fuels, this trapped CO2 and other greenhouse gases began being released into the atmosphere at an alarming rate. These gases actually magnify the amount of heat which gets trapped by the atmosphere. Therefore, it is not the act of transporting people and goods which contributes to climate change, it is the power we use in the transportation procedure which contrarily sways nature. As we proceed in our worldwide economy where items are transported long distances and individuals travel all the more widely, the effect of our petroleum derivative use for transportation will keep on increasing, unless we switch to cleaner fuels sources. Vehicles with better fuel economy and the use of biodiesel and electricity to fuel our transportation needs still serve as the best solutions to slow the progression of climate change in the short term. Likewise, people can buy nourishment from neighbourhood producers and providers, join tasks to make less driving outings, carpool, and use public transport to reduce their own carbon footprints.

Nonetheless, thanks to the growing global concern on the expected dramatic future of the Earth and our lives if we, as a community, don’t do something, national governments, public administrations, supranational organizations and other actors have conjured and are working to find solutions. In recent years, the Automotive industry has presented many fuel-free models, using new sources of energy, mostly renewable, which are more sustainable and beneficial for the protection of our planet.

Issues to consider

Costs

Many possible energy sources are considered to be quite expensive compared to the current sources used for transportation, such as the petroleum and its derivatives. For example, Hydrogen is a very expensive fuel and currently most of it, more than 70% of the total, is produced by steam reforming of natural gas; meaning that hydrogen is an expensive fuel that not many countries have afford. The costs of energy and transportation must be considered when developing possible solutions to the problem we are tackling, because, as we all know, our world and therefore the United Nations, is formed by countries with very different characteristics. The Committee therefore, should propose a way of transport possible to implement in the different countries while being sustainable and affordable to ensure its use in the short and long term.

***Infrastructure and urban planning**:*

Reaching a destination on foot is time consuming and not a favorable option. This is due to inconvenient urban planning; people living far away from work, shops and other necessary facilities which are to be used throughout the day. Therefore, urban planning must be considered an important aspect of the issue. This issue has become more important during the last decades with the growing of the urban areas and its overpopulation. A great and concretely developed urban plan can produce positive effects to our society and offer solutions to the problems related with our topic. The creation of Urban Mobility Plans securing more routes for sustainable transport such as bicycles; increasing the budget and the efficiency of the public transport by improving the coordination between different transports and the creation of sustainable cities, can help in reducing greenhouse and CO2 emissions.

Public relations

Not all inhabitants are aware and willing to change their mentality and their way of living to stop contributing to climate change effects. However, PR campaigns have to be looked into in order to educate the public on sustainable transport and its positive effects on our environment and our quality of life. These education campaigns have to be done in the different groups of the society, as if we all change our way of living towards a more sustainable life, its effects will be faster and much more determining. There is a need to change our lifestyle but it is truth that it may be challenging, and many are not up to it.

Public administrations and domestic governments must work on ensuring that people understand the measures that are being applied.

Long-term sustainability

It is important that the sustainable transport systems can run for decades without being rebuilt but rather maintained. The energy source has to be able to supply the transport fully, and the costs in the long-term have to be kept to a minimum. Our goal is to find a long-lasting solution, able to make a change on our lives while ensuring the future of the Earth. Therefore, states must consider negative consequences and possible problems in the long run as well. It is not enough to find a solution for the coming years or for some regions, but to offer a source of energy that is renewable, affordable, that all states can have access to, and just as efficient. Most importantly, the control and the production of the resource must not in any way be monopolized,

Past Action by The UN

The UN firstly recognized transport as a part of sustainable development in 1992. It has been later revisited in multiple summits and the growth of the energy consumption of the industry in the 21st century has been predicted since the 1990s. As noted previously, the development of transport is one of the SDGs and this makes it an extremely important topic for the UN.

The UN General Assembly Resolution A/RES/63/32 (Protection of global climate for present and future generations) has established the importance of handling climate change. The UNECE World Forum for Harmonization of Vehicle Regulations has been working towards achieving energy-efficient vehicles and promoting the use of Plug-In Hybrid and electric vehicles. The UNECE has also been working on transport infrastructure development in order to optimize communities' traffic. Consumer information as well as legal incentives have also been recommended by UNECE.

Research in alternative energy sources began in 1987 with Regulation #67 (further reading encouraged). Since then, sustainability criteria for biofuels have been devised. Overall, the UN has always been addressing the effects of transport on climate change and pollution as well as having an open dialogue on urban planning and sustainable transportation technologies.

Sustainable transportation has been addressed on several occasions by the UN. Previous resolutions by various bodies that help further deepen the analysis of the topic include:

- A/RES/68/269 and A/RES/70/260, improving global road safety.
- A/RES/72/212, strengthening the links between all modes of transportation to achieve the Sustainable Development Goals.
- A/RES/70/197, towards comprehensive cooperation among all modes of transport for promoting sustainable multimodal transit corridors.
- A/70/472, sustainable development: report of the Second Committee.
- A/RES/69/313, Addis Ababa Action Agenda of the Third International Conference on Financing for Development.
- A/RES/69/213, Role of transport and transit corridors in ensuring international cooperation for sustainable development.

Other documents, including summary reports, secretary-general reports, technical support team issues briefs, meeting reports and background papers can be found at the Sustainable Development Goals Knowledge Platform.[9]

Potential solutions/considerations for the future

Hyperloop

The idea of a Hyperloop was introduced in 2014. Modern transport requires far more than just moving people quickly - it needs to consider the economics of land, structure, operations, and ongoing maintenance while calculating a payback from rider fees or addition to the economy (if it's a public project). There are logistics in how many people can actually be moved, for both a certain cost and period of time. Safety is also paramount with redundancy needed everywhere, emergency procedures for worst-case scenarios,

[9] National Academies Press: OpenBook. *Advancing the Science of Climate Change* at NAP.edu. [Link]

enough security, and the ability to withstand attacks. It is a massive undertaking with more obstacles than potential benefits: vibration studies have to be conducted to fully understand the effects this system might have in seismic activities, as well as the main consequences it can bear to the passengers on it.

The hyperloop is a transportation system in which a pod (A carrier for passengers & goods) moves inside a tube (Nearly vacuum, 1 bar pressure). The speed of the pod is nearly 700 km/h. The two opposing forces which act on a moving body, first, the air friction, and second, the friction of the wheels have been reduced to the minimum. To minimize the wheel friction, the technique of Magnetic levitation is used while the Pod is moved inside large vacuum tubes. The tubes are maintained at very low pressure, and a linear induction motor (Magnetic levitation) moves the pod inside these tubes. The Hyperloop runs on electric force, and the entire framework is controlled by the sunlight based board introduced on the roof of the tube. The solar panels produce more energy than what the whole system consumes. Therefore, hyperloop can work as a power source powering cities and industries along with it. Apart from an initial installment and maintenance cost, it is a very cheap transportation system that can be used for generations to come.

The project still needs development: the most advanced design as of 2020, the Tesla and Boring Company's plan to link New York City with Baltimore and Washington is still in its infancy: regarding capacity, it just has a limit of 2,000 passengers per day, which covers a minimal part of the demand. Further development should be encouraged for the project to be as efficient as it possibly can.

As of 2020, the most similar project already in construction is the SCMaglev in Japan. This magnetic levitation system is expected to connect Tokyo with Nagoya in 2027 and with Osaka in 2045, reaching speeds up to 603 km/h. [10]

Hydrogen-powered vehicles

Hydrogen-powered vehicles have been produced since 2013, and they run off an electric generator. Hydrogen and oxygen create energy which powers the motor without burning

[10] Davies, Alex. Wired, Conde Nast, 27 Feb. 2018. *The WIRED Guide to Hyperloop*. [Link]

hydrogen, therefore the only emission while driving is water, and no carbon dioxide is emitted. The vehicle takes oxygen from the air which needs hydrogen from high weight hydrogen tanks in the energy component. The motor works as a generator gathering energy when the car speed is low. Fuel Cell Vehicles have the ability to start in extreme cold. Furthermore, it takes about 3 minutes to refill hydrogen just like fueling gasoline cars, and it is much faster than electric cars. It has to be taken into consideration that there is a lot of infrastructure required to run hydrogen cars in nations since all fuel stations must serve hydrogen. Some car companies are developing hydrogen-powered vehicles, while hydrogen-powered buses are already a reality in many European and Asian cities.

Airplanes are a kind of vehicle that could take much profit from hydrogen-powered developments. Aviation has one of the biggest impacts on transportation pollution and large costs regarding fuel. Hydrogen can either be burned in some kind of jet engine, or another kind of internal combustion engine, or can be used to power a fuel cell to generate electricity to power a propeller. Unlike most aircrafts, which use wings for storing fuel, hydrogen aircrafts are usually designed with the liquid hydrogen fuel carried inside the fuselage, in order to minimize surface-area and reduce boil-off. Emissions from travel can be reduced with more sustainable airplanes.[11]

Electric vehicles (EVs)

EVs are cars with a battery that run on electric motors. EVs are cheaper to operate because charging a battery pack is cheaper than buying fuel. Up until now, batteries cost was too high and took too long to charge. An average range for EV's used to be 350 miles per charge and a "quick" 80-mile charge has been available since 2017. EVs produce the least noise and do not produce emissions in comparison to other vehicles (they do not have a combustion engine), preventing not only air but also noise pollution. It has to be taken into consideration that charging stations are required for EVs to operate in communities. EVs also rank as lower-risk vehicles since their center of mass is located low. [12]

[11] Nicoll, Fergus. BBC News, BBC. 5 Nov. 2019. *Behind the Wheel of a Hydrogen-Powered Car.* [Link]
[12] Charlton, Alistair. TechRadar, TechRadar. 10 April 2018. *EVs Explained: Everything You Need to Know about Electric Vehicles."* [Link]

The aforementioned solutions all relate to the advancement of technology in decreasing pollution by motor vehicles. Nevertheless, pollution can be addressed from another point of view: city planning.

If public transport and non-polluting ways of transportation are encouraged in cities, pollution levels can decrease. Many cities are already limiting access of private cars to city centers by congestion pricing, thus encouraging public transport usage. In the case of London, since 2003, private vehicles traffic in the Central London area has decreased by 39%, overall traffic by 25%, cycling has increased by 66%, and bus wait times decreased by 25%.

City planning on this topic includes, mainly, the following three points:

Public transport

Using public transport allows the reduction of the number of emissions from transportation in dense urban areas. Public transportation can help cities to reduce smog, to meet air quality standards, and to decrease the health risks of poor air quality to their residents. In order to encourage public transport, governments and entities should cooperate to increase feasibility by ensuring punctuality, increasing frequencies, prioritizing, and reducing prices.

Bicycles and Electric Scooters

This type of transportation allows minimal carbon emission. Using the bicycle requires no fuel consumption and electric scooters do not emit greenhouse gases, nor do they add to vehicle congestion.

On foot

Finally, transportation on foot is by far the most convenient one which is known, however, many people do not choose this option since it increases their commute time.

By encouraging foot and cycling transportation, not only the environmental side of sustainability is approached. Economically, almost all sectors would take profit from these measures: when walking/cycling to and from work, pedestrians might actually

increase their consumption by walking through shops. And lastly, these measures increase the physical activity of people, increasing their quality of life and health.

Block Positions

European Union

Scandinavian regions of the EU (Norway, Sweden, Finland, Iceland and Denmark) are all strongly in favour of the sustainable development of transport. they have shown their commitment by being open to the change of renewable energy for long and they have the best track record regarding sustainable development goals. The Nordig cooperation, from which the scandinavian regions are members, is the clear example of these countries' effort to work together towards sustainable development[13]. The rest of the EU is still relatively dependent on fossil fuels even though they are open to the change step by step and to reach some of the SDGs.

Germany

The country has large businesses based on oil industries. Therefore, switching to eco friendly transport would mean abandoning the business and a huge downturn in the economy. However, we can consider Germany to be financially stable enough to introduce eco-friendly transport.

France

It is considered one of the most eco-friendly countries in the world. France has one of the best water and air qualities on the planet and it has enough resources to support and implement the concept of sustainable transport.

United Kingdom

Has the economic capacity to enable an eco friendly environment. Its government has stated they would like to contribute in the development of the idea to a further extent.

United States of America

Hyperloop was founded in the USA as many other ecologically friendly technologies. This country is one of the countries across the world with the greatest economic capability to introduce eco friendly transportation. However, its leadership independence on fossil

[13] Noordic Co-operation. *Sustainable Development*[Link]

fuels prevents further investment into clean energy. The USA was nominated as the world's second largest greenhouse gas emitter in 2020.

China

Has enough economic capacity to afford many eco friendly technologies and would benefit greatly from much more ecological innovations. It has an immense amount of factories (2,801,143 only in 2015) which require a lot of coal burning. Coal burning is one of the leading reasons of pollution in the country (due to the extreme amount of greenhouse emissions) its consequence are 1.6 million deaths in the country per year.

Russia

90 percent of the world's natural gas comes from Russia (Europe's biggest importer). Abandoning this business would cause a huge economic fall to the country due to decrease in revenues from natural gas. The Russian economy is substantially dependent on the gas industry, which considerably contaminates the environment. Moreover, the country suffers from a 16 million hectares loss of forest every year, there are several loggins and fires which demonstrate that forests are also greatly affected by global changes.

Australia

The main cause of fire ignitions of Australia's bushfires is dry lightning, essentially lightning from thunderstorms that don't produce rain. Australian scientists have been warning for years about the risk of climate change increasing the likelihood of extreme wildfires. Despite showing some improvements in earth-friendly behaviour and concern about the environment since 2012, Australians still rank relatively low on the Greendex.

Brazil

With the arrival of a new president in 2019 the idea of technological development has been abandoned and thus prevented the change to sustainable transport.

United Arab Emirates

Has the economical ability to support the transport sustainable development, yet it relies too much on fossil fuels which is the main contributor of greenhouse emissions in the

country. Dubai, the capital, has been taking several steps in order to become a more environmentally friendly city. The UAE's government has recently announced it will be introducing 500km of bicycle routes by 2020, and now it is planning to build the largest concentrated solar power (CSP) project in the world.

India

It is still a developing country that is struggling with extreme poverty in some areas, especially the rural ones. Right now, it is not their main goal to switch to eco friendly transport, yet the country is open to the concept even though it is not one of the main issues neither they have the resources to cope with it.

Japan

This country started overcoming the issue of pollution in the 1950s, 1960s and 1970s at the time of the oil shock. It is one of the most technologically developed countries in the world and the leader of the world's sustainable development. Japan regulates its waste emission and works on protecting national health. However, it has some concerns at the time of controlling air emissions from all the factories which lead to the appearance of acid rain throughout the country.

Guiding questions

1. Which is the tangible impact of not eco friendly transportation in the environment? Which are the countries that pollute the most because of the lack of use of eco friendly transportation?

2. How can countries enhance the production of sustainable personal transports? How can countries promote its purchase? Are there further alternatives of eco friendly transportation to contemplate?

3. Which are the regulations needed regarding personal vehicles and its impact in the environment?

4. Which are the first steps when optimizing and reforming urban planning into a sustainable one? Can they be standardized at a global scale? How can countries foster these first steps?

5. Which are the further challenges raising in densely populated communities? How can countries overcome these challenges?

6. Will all the countries have the needed resources to implement the essential measures towards a sustainable transportation system? If not, how does the ECOSOC plan to overcome this challenge?

Further readings

United Nations. Department of Economic and Social Affairs. *#Envision2030 Goal 11: Sustainable Cities and Communities* [Link]
UNDP. 2015. *Sustainable Development Goals*[Link]

Further reading:

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United Nations. *Global Issues - Climate Change* [Link]
UNECE. *Climate Change and Sustainable Transport* [Link]
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