Forum:	Social Humanitarian and Cultural Committee (GA3)
Issue:	Creating a Blueprint for Sustainable and safe cities
Student Officer:	George Levantis
Position:	Co-Chair

PERSONAL INTRODUCTION

Hello everyone!

My name is George Levantis, and I am a student in the 11th grade at the German School of Athens. In 2019, I joined my school's MUN Club when I was still an eighth-grade student. I had always admired the students that participated in my school's MUN Club, and when the opportunity to join that club arose, I jumped at it.

I am thrilled to be a member of this year's PSMUN conference's Humanitarian and Cultural Committee. The issue of creating a blueprint for sustainable and safe cities is an important and timely topic that is relevant to the mandate of GA3. Cities are home to a large proportion of the world's population and are critical for economic and social development. However, many cities face significant challenges, including environmental degradation, lack of access to basic services, and inadequate infrastructure, all of which can have a major impact on the health and well-being of residents.

As a Co-Chair of the Social, Humanitarian, and Cultural Committee, I hope to guide your discussions and debate on this issue and hopefully come up with practical and effective solutions to the challenges faced by cities. I also want to remind you that this Study Guide should not be your only source, you are encouraged to delve further into the issues analyzed.

I look forward to seeing you all in person! In the meantime, if you have any questions, please do not hesitate to contact me at glevantis2006@gmail.com.

Best Regards,

George Levantis

INTRODUCTION

A sustainable city is a city that is designed and managed in a way that meets the needs of its current residents without compromising the ability of future generations to meet their own needs. This involves considering a range of factors, including environmental, social, and economic aspects.

Sustainable cities prioritize the use of renewable resources and the protection of natural habitats, as well as the well-being of their residents. This is because using renewable resources and protecting natural habitats are essential for maintaining the long-term health and resilience of the city.

Renewable resources, such as solar and wind power, can help cities reduce their reliance on fossil fuels and reduce their carbon footprint. Protecting natural habitats, such as forests, wetlands, and rivers, can help preserve the biodiversity and ecological integrity of the city, and provide numerous benefits, such as improving air and water quality and providing recreational opportunities.

Creating a sustainable city can be effective in many different ways. More specifically, it can be measured in a number of ways including Environmental indicators, Social indicators and Economic indicators. As far as the environmental indicators are concerned, a sustainable city should have a low carbon footprint and a healthy natural environment. This can be measured by tracking indicators such as greenhouse gas emissions, air and water quality, and the health of natural habitats. Additionally, regarding the social and economic indicators, a sustainable and safe city should provide a high quality of life for its residents. This can be measured by tracking different social aspects such as crime rates, access to education and health care, and community engagement and satisfaction. Also, A sustainable and safe city should have a strong and diversified economy that provides opportunities for its residents. This can be measured by tracking indicators such as job growth, median income, and business development.

First, in the past, people have understood the meaning of making a change inside the community for creating an even better one. The first step that was made was the 1st UN Conference on the Human Environment, while further events followed for sustainable development. This made many people worldwide understand the meaning and the importance of protecting the community and the city as a whole. But it did not stay at this initiative. It followed the Creation of the International Panel on Climate Change and many non-Governmental Organizations such as Greenpeace, The Natural Resources Defense Council (NRDC) and The World Wildlife Fund (WWF).

Overall, a sustainable city is one that is designed and managed in a way that balances the needs of its residents and the environment, with the goal of creating a thriving, resilient community for generations to come. In addition, the effectiveness of a sustainable and safe city can be measured by tracking a range of indicators that reflect the city's environmental, social, and economic health. By regularly monitoring and

evaluating these indicators, cities can identify areas for improvement and make progress towards achieving their sustainability and safety goals.

DEFINITION OF KEY TERMS

Nationally Determined Contributions (NDCs)

NDCs, or Nationally Determined Contributions, are pledges made by nations that are signatories to the United Nations Framework Convention on Climate Change (UNFCCC) to decrease greenhouse gas emissions and promote sustainable development.[1]

Sustainable Development Goals (SDGs)

The Sustainable Development Goals, also known as the Global Goals, are a set of 17 interconnected global goals intended to serve as a "common blueprint for peace and prosperity for people and the planet, now and in the future." The United Nations General Assembly established the SDGs in 2015, with the goal of achieving them by 2030.[2]

Renewable resources

"Renewable resources are an energy source that cannot be depleted and are able to supply a continuous source of clean energy." [3]

Greenhouse Gases

Greenhouse gases are gases that trap heat in the atmosphere. This section contains data on the primary greenhouse gases emissions and removals from the atmosphere. Please see the Climate Change Indicators: Climate Forcing page for additional information on the other climate forcers, such as black carbon.[4]

Segregation

"The policy of keeping one group of people apart from another and treating them differently, especially because of race, sex, or religion"[5]

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[1] *https://unfccc.int/ndc-information/nationally-determined-contributions-ndcs.* unfccc.int/ndc-information/nationally-determined-contributions-ndcs. Accessed 14 Dec. 2022.

[2] *https://en.wikipedia.org/wiki/Sustainable_Development_Goals.* Accessed 14 Dec. 2022.

[3] "Renewable Resources | National Geographic Society." *Renewable Resources | National Geographic Society*, education.nationalgeographic.org/resource/renewable-resources. Accessed 14 Dec. 2022.

[4] "Overview of Greenhouse Gases | US EPA." *US EPA*, 23 Dec. 2015, www.epa.gov/ghgemissions/overview-greenhouse-gases.

[5] :"Segregation." *SEGREGATION | English Meaning - Cambridge Dictionary*, 7 Dec. 2022, dictionary.cambridge.org/dictionary/english/segregation.

Green spaces

An area of grass, trees, or other vegetation set aside in an otherwise urban setting for recreational or aesthetic purposes.

Car centrism

Car-centric planning is defined as urban planning that prioritizes the private vehicle as the major means of transportation, frequently to the disadvantage of individuals who walk, cycle, or take public transportation.[6]

Low-density development

This term refers to housing with a very low number of dwelling units on any residential block or a housing community with a low number of households per acre. The word that best depicts low-density life is exclusivity. It means that only a small number of individuals will be able to live in the housing community.

Transport

Transport refers to the movement of people, goods, or materials from one place to another. Transportation can be by land, air, or water, and can involve the use of various modes of transportation, such as cars, buses, trains, planes, and ships. Transportation plays a critical role in modern society, as it allows for the movement of people and goods between different locations and is an essential component of economic and social activity.[7]

Public Transport

Public transport refers to transportation services that are available for use by the general public. These services are usually funded and operated by government agencies or public authorities and may include buses, trains, subways, trams, and ferries. Public transport is typically designed to provide affordable and convenient transportation for all members of the community, and is often seen as an important means of reducing traffic congestion and improving air quality in urban areas.

Slum population

A slum household is defined as a group of individuals living under the same roof lacking one or more of the following conditions: access to improved water, access to improved sanitation, sufficient living area, housing durability, and security of tenure, as adopted in the Millennium Development Goal Target.

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[6] "What Is Car-Centric Planning? | Planopedia." *What Is Car-Centric Planning? | Planetizen Planopedia*, www.planetizen.com/definition/car-centric-planning. Accessed 14 Dec. 2022.

[7] Dooling, Dave. "Transportation | Definition & Facts | Britannica." *Encyclopedia Britannica*, 5 December 2022, https://www.britannica.com/technology/transportation-technology. Accessed 21 December 2022.

Circular economy

Circular economy is an economic system centered on the reuse and regeneration of resources or products, particularly as a method of sustaining production in an ecologically responsible or sustainable manner.

Take-make-waste paradigm

This model describes the way energy or materials are taken, transformed into goods or services, and then, passed to businesses or consumers who use them. The outcome is financial gain for the agents involved, but the original resources disappear and waste is generated as a byproduct.

Urban resilience

"Urban resilience is the capacity of a city's systems, businesses, institutions, communities, and individuals to survive, adapt and thrive, no matter what chronic stresses and acute shocks they experience."[8]

Emerging nations

In economics and politics, an emerging nation is a developing country that is beginning to show signs of considerable industrialisation. The word refers to a stage between that of a developing country and that of a developed country. A rising nation often has a high GDP and a high level of industrialization.

Linear consumer culture

Linear consumer culture refers to a way of consuming goods and services that is based on a linear model of production and consumption. In this model, raw materials are extracted and processed into products, which are then sold to consumers and eventually disposed of after they are no longer used. This model of consumption is often associated with a high level of resource consumption and waste generation.

BACKGROUND INFORMATION

The cities and communities in the previous decades

Sustainability was not as much of a concern in previous decades as it is today, so cities were not necessarily built with sustainable practices in mind. However, some cities did incorporate sustainable features and practices into their design and construction. For example, some older cities were built using materials and techniques that were intended to minimize their environmental impact, such as using local and renewable resources or designing buildings to take advantage of natural lighting, e.g. sunlight, fire, and electricity in storms and ventilation such as winds or breezes. Additionally,

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[8]"What is Urban Resilience?" Resilient Cities Network, https://resilientcitiesnetwork.org/what-is-urban-resilience/. Accessed 22 December 2022.

some cities implemented transportation systems and other infrastructure that were intended to reduce pollution and waste.

In addition, communities in previous decades were typically smaller and more tightly knit than they are today. People tended to live in close proximity to one another and to have stronger connections to their neighbors and local institutions. This often led to a stronger sense of community and a greater sense of belonging. In addition, communities in previous decades were often more self-sufficient, with people relying on local businesses and services for their daily needs. This made it easier for people to get to know one another and form strong social bonds. The communities and cities at the time differed in specific areas from today's cities.

Criminality

Criminal activity in communities has changed over the years, as crime rates can vary greatly depending on a wide range of factors. However, in general, crime rates in the United States and other developed countries have trended downward over the past several decades. This means that, on average, communities are likely to be safer now than they were in previous decades. However, high crime rates can still be noted even in the most prosperous cities.

One key factor that allows for criminality is the type of urban development used. In essence, space designation and whether it is dedicated to residential, commercial, industrial uses or a mix of two or more greatly affects crime rates. In general, mixed use environments are less likely to allow for violent crime because of the fact that collective public surveillance, or "eyes on the street" is more readily available at more times of the day.[9] In other words, because of the fact that mixed-use environments invite a lot of people to spend time in them, criminals are deterred from acting within them. The availability of public spaces and amenities, such as parks, community centers, and libraries, can also influence crime rates. By providing opportunities to residents for safe social interaction and activities, they are able to illicit the same concept mentioned above, and to also neighborhoods with a high number of public spaces and amenities may have lower crime rates than neighborhoods with few or no such resources, which refers also to the past namely the differentiation of "White" and "Coloured" communities.

City planning can have a significant impact on crime rates in a number of ways. The way that land is used and zoned can influence firstly crime rates by determining the types of businesses and activities that are allowed in a given area. For example, areas with a mix of residential, commercial, and recreational uses may have lower crime rates than areas with a single use, such as industrial or commercial. Additionally, the design of transportation systems and the accessibility of different parts of the city can influence crime rates by determining how easy it is for people to move around and

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[9] Kaley, Overstreet. "How Mixed-Use Neighborhoods Can Reduce Crime Rates." *ArchDaily*, 17 May 2022, https://www.archdaily.com/981969/how-mixed-use-neighborhoods-can-reduce-crime-rates.

access different areas. The availability of public spaces and amenities, such as parks, community centers, and libraries, can influence crime rates by providing opportunities for social interaction and positive activities. Neighborhoods with a high number of public spaces and amenities may have lower crime rates than neighborhoods with few or no such resources, which refers also to the past namely the differentiation of "White" and "Coloured" communities.

Greenhouse Gasses

In the past, communities and cities were often more self-sufficient, with people relying on local resources and businesses for their daily needs. This often resulted in lower emissions, as people did not need to travel as far or use as much energy. However, as communities have become more connected to larger urban centers, their emissions have increased. As city centers have developed, so has the demand for energy to power buildings, transit systems, and other infrastructure. As a result, the usage of fossil fuels, which are a significant source of greenhouse gas emissions, has increased. There has also been a growth in the number of individuals moving between them for employment, shopping, and other purposes. This has resulted in a rise in the use of vehicles and other modes of transportation, which are important producers of emissions. Last but not least, there has been a rise in the amount of area allocated to urban development, which can add to emissions through the use of fossil fuels for building and transportation. As city centers have grown and become more interconnected, there has been a corresponding increase in emissions of greenhouse gasses and other pollutants. Additionally, as awareness of the impact of greenhouse gas emissions has grown, many communities have implemented measures to reduce their emissions, in ways such as increasing the use of renewable energy, promoting energy efficiency, encouraging the use of public transportation and promoting sustainable land use practices. These efforts have had some success, but greenhouse gas emissions from communities remain a significant contributor to global climate change.[10]

Transport

In previous decades, cities relied heavily on automobiles for transportation. This was due in part to the rise of the automobile industry and the availability of cheap and convenient cars, namely vehicles that are designed to be easy and convenient to use. As a result, many cities were designed with cars in mind, with wide roads and ample parking, e.g. In Seattle, there are around 1.6 million parking spaces–more than five for every household in the city. In addition to cars, cities also relied on buses, trains, and other forms of public transportation to move people around. In some cases, cities also had systems of bike lanes and pedestrian paths to accommodate non-motorized forms

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[10] Source: Boden, T.A., Marland, G., and Andres, R.J. (2017). Global, Regional, and National Fossil-Fuel CO2 Emissions. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A. doi 10.3334/CDIAC/00001_V2017.

of transportation. Overall, the transportation systems in cities in previous decades were typically more reliant on cars than they are today.

Segregation

Segregation in cities was a big issue throughout the decades. Many cities around the world have experienced segregation based on race, ethnicity, and other factors. For example, in South Africa during the era of apartheid, the government implemented a system of segregation which separated people by race and assigned them to different areas from 1948 to 1998. This led to the creation of segregated neighborhoods, schools, and other public spaces. In Brazil, there was a similar system of segregation known as "quilombos" which separated people of African descent from the rest of society. In other countries, segregation has occurred along religious, linguistic, or cultural lines. An example of religious segregation is India, where people are divided into castes and they are not allowed, due to their religion, to change it. A further example regarding linguistic segregation is Switzerland where there are four official languages (German, French, Italian, and Romansh). There have been instances of children being separated in schools based on the language they speak, which has resulted in segregation and unequal educational opportunities. Overall, segregation in cities has been a widespread problem throughout history and continues to be a challenge in many places around the world, which is perpetrated by discriminatory city planning.

The Need for creating a sustainable city

In essence, a city is a system made up of several components. All of those components must be sustainable in order for a city to be really sustainable. Public green spaces and sustainable building materials should be used throughout construction. Walkable streets should offer areas for relaxation and socializing. 3.5 billion people, or half of humankind, already reside in cities, and this figure is expected to rise. The majority of people in the future will live in cities, thus, finding answers to some of the biggest problems humanity is now facing—poverty, climate change, healthcare, and education—will need urban living.

Inequity is a major problem. The slum population currently stands at 834 million {Eastern and South-Eastern Asia (370 million), sub-Saharan Africa (238 million) and Central and Southern Asia (226 million)}[11], and it is growing. The rising population of people living in slums is a concern for a number of reasons such as poverty and inequality, poor living conditions and social exclusion. Urban energy use and pollution levels are also concerning. Only 3% of the planet's territory is occupied by cities, but they are responsible for 60% to 80% of energy use and 75% of carbon emissions.[12]

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[11]"— SDG Indicators." — SDG Indicators, https://unstats.un.org/sdgs/report/2021/goal-11/. Accessed 22 December 2022.

[12] Suga, Masayoshi. "Cities - United Nations Sustainable Development Action 2015." the United Nations, https://www.un.org/sustainabledevelopment/cities/. Accessed 10 December 2022.

Building urban resilience is essential to prevent personal, social, and economic losses since many cities are more susceptible to climate change and natural catastrophes owing to their dense population and geographic position. More specifically, densely populated areas may be more susceptible to the spread of infectious diseases due to the close proximity of people to one another. Similarly, if a population is experiencing tension or conflict, this can create conditions that make it more difficult for individuals to access healthcare or other resources that might help protect them from health threats. Geographic position can also affect a population's susceptibility to various issues. For example, populations that are located in areas with limited access to clean water or basic healthcare services may be more susceptible to certain health problems. Similarly, populations located in areas with high levels of pollution or environmental hazards may be more susceptible to health problems related to those exposures.

Every citizen will likely be impacted by all of these problems. As well as affecting everyone's health and productivity at work, pollution also has a negative impact on the economy. The economic impacts of pollution are complex and depend on a variety of factors, including the type and extent of the pollution, the industries and activities that contribute to the pollution, and the actions taken to address the pollution. Finally, natural catastrophes have the ability to disrupt everyone's way of life.[13] Moreover, Disasters, such as natural disasters, accidents, or conflicts, can have a range of impacts on individuals and communities. These impacts can be both direct and indirect. Direct impacts are those that occur as a result of the disaster itself, such as injuries or fatalities, damage to homes and other structures, and loss of access to essential services like water and electricity. Indirect impacts are those that occur as a result of the disaster but are not directly caused by the disaster itself. Disasters can also have broader impacts on the economy and society as a whole. For example, a natural disaster might disrupt transportation networks or damage infrastructure, which can have cascading effects on businesses and supply chains.

So, the conclusion can be drawn that there is a need for creating sustainable and safe cities for a variety of reasons. One of the main reasons is to ensure that our cities can continue to support and provide for the needs of the people who live in them. This means finding ways to use resources efficiently and minimize waste, as well as reducing pollution and other negative impacts on the environment. Creating sustainable and safe cities is also important for promoting the health and well-being of city residents, and for fostering social and economic development. Additionally, as the global population continues to grow, it will be increasingly important to ensure that our cities are equipped to handle this growth in a sustainable and safe manner. Last but not least, the need for a sustainable city has been raised through the UN Millennium Summit at the beginning of the 21st century.

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[13] Statistic: "— SDG Indicators." — SDG Indicators, https://unstats.un.org/sdgs/report/2021/goal-11/. Accessed 22 December 2022.

Parameters of a safe and sustainable city

The rate of global development is unparalleled. The world population is expected to reach 9.8 billion by 2050. More than twice as many people (6.7 billion) are expected to live in cities than in the countryside by 2050. (3.1 billion)[14]. Rapid expansion has brought about significant social, economic, and environmental concerns, but it also helps to generate new opportunities. [15]

Currently, 1.5 billion people live in nations where violent cycles are common, and 1 billion people reside in urban slums. Natural catastrophes now affect 2 billion more individuals than they did ten years ago. Only 9% of disasters since 1980 have occurred in low-income nations, but 48% of the deaths. Disasters, conflicts, criminal activity, and violent acts disproportionately affect the poor. For this reason, the concept of "Sustainable Cities and Communities" has been brought to light. For this to happen, different parameters should be taken under consideration in order for this idea to be achieved.

Energy efficiency

13% of the world's power is consumed for lighting, which accounts for 5% of greenhouse gas emissions. Energy-efficient LED-lamps and lamp-bulbs may replace lighting sources like incandescent light bulbs and halogen lamps, which can have a large positive impact on the environment. Sustainable solutions are more important than ever because of resource constraints and the battle against climate change. One must use resources more wisely if we are to satisfy the requirements of a growing population. Cities can work to reduce their overall energy consumption and increase their use of renewable energy sources. This can involve things like implementing energy-efficient building codes and retrofitting existing buildings, as well as promoting the use of renewable energy technologies such as solar and wind power.[16] Last but not least, a point about energy efficiency in any means of transportation should be stated. Energy efficiency in transportation refers to the use of less energy to perform the same tasks in the transportation sector, such as moving people or goods from one place to another. There are many ways to increase energy efficiency in transportation, including the improvement of the fuel efficiency

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[14]   Ritchie,   Hannah,   and   Max   Roser.   "Urbanization."   Our   World   in   Data, https://ourworldindata.org/urbanization#how-many-people-will-live-in-urban-areas-in-the-future. Accessed 2 January 2023.

[15] Yoshitani, Junichi, and Peter Grundy. "Global trends in water-related disasters: an insight for policy makers." UNESCO Digital Library, https://unesdoc.unesco.org/ark:/48223/pf0000181793. Accessed 12 December 2022.

[16]"Sources   of   Greenhouse   Gas   Emissions | US   EPA."   *EPA*,   5   August   2022, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed 12 December 2022.

of vehicles, the promotion of public transportation and also the encouragement of the use of non-motorized modes of transportation.

Water Management

After the 1st World Water forum in Marrakech in 1997 the appropriate use of water was taken under consideration. Utilizing water in a way that satisfies present ecological, social, and economic requirements without jeopardizing our ability to do so in the future is known as sustainable water management. It demands water managers think beyond their own supply operations and jurisdictional borders, managing water cooperatively while looking for resilient regional solutions that reduce risks. Water management is an important aspect of creating a sustainable city. By implementing effective water management strategies such as water reuse and recycling, water infrastructure improvements and water pricing strategies, such as variable pricing based on the time of day or the volume of water used, cities can reduce their water consumption, reduce the amount of wastewater produced, and improve the quality of water in local rivers and other bodies of water. This can help to support the health and well-being of city residents, as well as promote the overall sustainability of the city.

Waste Management

A crucial element of a bigger circular economy is sustainable waste management. It adopts a methodical approach to economic development with the aim of decoupling growth from the use of limited resources, in opposition to the take-make-waste paradigm. In addition to offering more immediate solutions to the many problems that rubbish causes, sustainable waste management also helps to address the bigger issues raised by linear consumer culture.

Developing a sustainable city requires careful waste management. Cities may reduce the quantity of garbage produced, boost recycling and composting of waste materials, and lessen the harmful effects of waste on the environment and public health by putting efficient waste management plans into place. Conserving natural resources, decreasing pollution, and enhancing the health and well-being of city dwellers, can assist the sustainability of the city.

Green spaces

Green spaces, such as parks, gardens, and natural areas, play an important role in promoting the sustainability of cities. Green spaces provide many benefits to cities. These benefits are the following. To begin, green spaces support biodiversity as they provide habitat for a wide variety of plants and animals, which can help to support healthy ecosystems within the city. Additionally, they can improve the air and water quality because Green spaces can help to filter and clean the air and water, reducing pollution and improving the overall quality of the environment within the city.

Identifying and decreasing criminality

The size and diversity in design and space utilization of modern urban areas makes it extremely difficult for authorities to identify specific areas where criminality is most prevalent. Historically, the use of predictive algorithms in conjunction with large datasets has largely been effective in identifying potential "problem areas". This is called Geographic Information Systems, which combines crime statistics, maps and other tools, such as population density and type of urban development to identify said problem areas and potentially predict where crimes are going to occur next.[17]

City planning can have a significant impact on crime rates in a number of ways. The way that land is used and zoned can influence firstly crime rates by determining the types of businesses and activities that are allowed in a given area. For example, areas with a mix of residential, commercial, and recreational uses may have lower crime rates than areas with a single use, such as industrial or commercial. Additionally, the design of transportation systems and the accessibility of different parts of the city can influence crime rates by determining how easy it is for people to move around and access different areas. The implementation of public transportation in areas where it was previously inaccessible, can actually give criminals new opportunities to find targets. A study conducted in 2015 found that the implementation of public transportation would actually increase crime rates on the short run by approximately 1.4%[18]. However, public transportation can also give more people access to more lucrative occupational opportunities, which has the inverse effect of that mentioned in the study.

The availability of public spaces and amenities, or lack thereof, can influence an individual's perception of how safe an area is. Underdeveloped and under surveilled public spaces tend to attract a disproportionate amount of crime, whereas well-maintained and accessible public spaces and amenities increase one's perception of safety, while also decreasing actual crime rates[19], because of the increased foot traffic.

City Layout and Car centrism

The layout of a city and its reliance on cars can have a major impact on its sustainability. Traditional city layouts that are designed around the car, with

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[17] "How to Identify Hot Spots and Read a Crime Map." *National Institute of Justice*, https://nij.ojp.gov/topics/articles/how-identify-hot-spots-and-read-crime-map.

[18] Neiss, Morgan. "Does Public Transit Affect Crime? The Addition of a Bus Line in Cleveland." *The Journal Of Economics And Politics*, 2015, https://collected.jcu.edu/cgi/viewcontent.cgi?article=1003&context=jep#:~:text=Also%2C%20rails%20and%20buses%20give,%E2%80%9D%20(Brantingham%2C%201991).

[19]Wooley, Helen, and Cian Rose. "The Value of Public Space." *CABE SPACE*, https://www.designcouncil.org.uk/fileadmin/uploads/dc/Documents/the-value-of-public-space1.pdf.

wide streets and low-density development, can encourage the use of cars and make it difficult for people to use alternative forms of transportation. This can lead to increased greenhouse gas emissions, air and water pollution, and other environmental impacts. Car-centric design is also incredibly unsafe for both drivers and pedestrians. 1.3 million people die each year in traffic related accidents, which happen by a disproportionate 93% in low- and middle-income countries.[20] In 2016, the number of urban traffic related deaths surpassed rural ones[21], which is due in part to the outdated and, in some cases, extremely dangerous car-centric city planning, that puts pedestrians and other vulnerable individuals such as cyclists and motorcyclists at risk. In contrast, cities that are designed with sustainability in mind can incorporate features that promote the use of alternative forms of transportation, such as public transit, biking, and walking. These cities can also be designed to be more compact and dense, which can help to reduce the overall amount of land and resources used and can make it easier for people to access the services and amenities they need without relying on cars, which also makes them safer. Overall, the layout of a city and its reliance on cars can have a major impact on its sustainability, and sustainable cities are designed to minimize the negative impacts of car use and promote the use of alternative forms of transportation.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

Brazil

Curitiba's transformation from a typical Brazilian city to a leading example of sustainability was largely attributed to Mayor Jaime Lerner. In the 1970s, the city implemented a number of innovative policies and programs that have made it a model for other cities around the world. Some of these initiatives include a comprehensive public transportation system, including dedicated bus lanes and an efficient network of bus terminals; a system of parks and green spaces that provide both recreational opportunities and natural habitats; and a program of urban redevelopment that has preserved the city's historic buildings and revitalized its downtown area. These and other efforts have helped Curitiba become one of the most livable cities in Brazil and a leader in sustainable development. Additionally, eliminating garbage from the streets and ensuring that it is properly sorted, contributes to the city's beautification while also providing low-income inhabitants with access to food and public transit. Additionally, Curitiba has a lot of green space, with each resident having access to 50 square meters of it.

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[20] *Road Traffic Injuries*. https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries.

[21] "Fatality Facts 2020: Urban/Rural Comparison." *IIHS-HLDI Crash Testing and Highway Safety*, https://www.iihs.org/topics/fatality-statistics/detail/urban-rural-comparison.

Canada

There are a number of cities in Canada that are known for their efforts in sustainable development and urban planning. Some examples include firstly the city of Vancouver. Vancouver has a strong commitment to sustainability and has implemented a number of initiatives to reduce its environmental impact, including a comprehensive recycling program, a network of green spaces and parks, and a focus on promoting energy efficiency and the use of renewable energy. In addition, Toronto has a number of initiatives in place to promote sustainable development, including a program to increase the use of public transportation, a plan to reduce greenhouse gas emissions, and a focus on preserving green spaces and promoting sustainable building practices. Overall, Canada has a strong commitment to sustainable development and many of its cities have implemented initiatives to reduce their environmental impact and improve the quality of life for their residents.

Denmark

Denmark is well-known for its dedication to sustainability, and it has put in place a variety of programs to decrease its environmental effect and promote sustainable growth. To begin, Denmark is a leader in the usage of renewable energy, with wind power accounting for a large portion of its electricity. In addition, the government has adopted a variety of programs to promote the use of renewable energy in transportation, such as a huge network of electric car charging stations and incentives for electric vehicle purchases. Denmark also has a long history of sustainable agriculture, with a concentration on organic farming and animal welfare. The government has put in place a variety of efforts to encourage sustainable agriculture, such as the use of ecologically friendly fertilizers and the protection of natural ecosystems. Finally, Denmark has several efforts in place to encourage sustainable urban development, such as an emphasis on compact, walkable cities and the utilization of green areas and parks to improve citizens' quality of life.

India

In recent years, India has made considerable strides toward promoting sustainability and reducing its environmental effect. India has made major investments in renewable energy and has set high objectives for solar, wind, and other kinds of renewable energy growth. As a result, the country's renewable energy sector has grown rapidly in recent years. In addition, India has launched a variety of programs to promote sustainable agriculture, such as the use of environmentally friendly fertilizers, the promotion of organic agricultural techniques, and the protection of natural ecosystems. India has undertaken a variety of projects to encourage sustainable urban planning, such as the creation of compact, walkable cities, the promotion of public transit, and the utilization of green areas and parks to improve people's quality of life.

Singapore

Singapore is known for its commitment to sustainable development and has implemented a number of initiatives to reduce its environmental impact and improve the quality of life for its residents. The city-state has a strong economy and a low crime rate, making it a safe and prosperous place to live. It also has a well-developed infrastructure, with an efficient public transportation system, modern healthcare facilities, and high-quality schools and universities. In addition, Singapore has a diverse and vibrant culture, with a variety of restaurants, museums, and other cultural attractions. The city-state also has a rich natural environment, with a network of green spaces and parks that provide opportunities for outdoor recreation. All of these factors contribute to Singapore's reputation as a great place to live and work. Some of these initiatives include a comprehensive recycling program, a network of green spaces and parks, and a commitment to promoting energy efficiency and the use of renewable energy. Singapore has also implemented strict regulations to control pollution and protect natural habitats and has invested in advanced technology and infrastructure to support sustainable development. As a result, Singapore is often cited as an example of a city that has successfully integrated sustainability into its policies and practices.

The Global Environment Facility (GEF)[22]

The Global Environment Facility (GEF) is an international organization that provides funding and support for projects that aim to protect the global environment, including projects related to sustainable urban development. The GEF was established in 1991 and operates as a partnership between 183 countries, international organizations, and civil society, with the goal of promoting environmentally sustainable development. One of the key areas of focus for the GEF is supporting sustainable cities and urban development. The organization provides funding and technical assistance for a wide range of projects that aim to reduce greenhouse gas emissions, improve air quality, and promote the use of clean and efficient transportation in cities. This includes projects that aim to increase the use of renewable energy, reduce waste and improve waste management, and promote the use of green infrastructure and sustainable land use practices. In addition to providing funding and technical assistance, the GEF also works to build capacity and strengthen the institutional frameworks needed to support sustainable urban development. This includes working with governments, local communities, and other stakeholders to develop policies and regulations that support sustainable development, as well as providing training and capacity building programs to help cities implement sustainable development projects.

The International Council for Local Environmental Initiatives (ICLEI)

The International Council for Local Environmental Initiatives (ICLEI) is a global network of local governments and other organizations that are committed to promoting

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22 "Sustainable Cities." GEF, 27 October 2021, https://www.thegef.org/what-we-do/topics/sustainable-cities. Accessed 12 December 2022.

sustainability and combating climate change. ICLEI was founded in 1990, and it now has more than 1,750 member organizations in over 100 countries. ICLEI works to support its member organizations in implementing sustainable development policies and practices, and it provides a range of resources and support to help local governments achieve sustainability by means such as providing guidance and technical support, and facilitating networks and collaboration among its members, helping them to share information and learn from one another.

United Nations Environment Programme (UNEP)

The United Nations Environment Programme (UNEP) is a United Nations body dedicated to environmental protection and sustainable development. UNEP aims to address the causes and consequences of climate change, notably through promoting renewable energy, developing low-carbon technology, and enacting laws to limit greenhouse gas emissions. UNEP aims to safeguard the Earth's biodiversity and promote the sustainable use of natural resources, particularly through developing conservation initiatives and promoting sustainable land use practices. UNEP seeks to reduce pollution and safeguard human health, particularly through developing pollution-control laws and regulations and promoting cleaner technology. UNEP seeks also to encourage sustainable development and improve people's quality of life worldwide, notably through developing projects to improve access to clean water, healthcare, and education.

World Bank

The World Bank is an international financial institution that provides loans, grants, and technical assistance to countries around the world to support the development and reduce poverty. The World Bank has a long history of supporting projects related to sustainable urban development, including projects that aim to improve the environmental, social, and economic sustainability of cities. One of the key areas of focus for the World Bank in relation to sustainability in cities is promoting the use of clean and efficient energy. This includes projects that aim to increase the use of renewable energy sources, such as solar and wind power, as well as projects that aim to improve energy efficiency in buildings and transportation systems. In addition to promoting clean energy, the World Bank also supports projects that aim to improve urban infrastructure and services, such as water and sanitation systems, transportation networks, and waste management systems. These projects aim to improve the quality of life for urban residents and reduce the environmental impact of cities.

TIMELINE OF EVENTS

DATE	DESCRIPTION OF EVENT
1948-1998	Era of Apartheid in South Africa
05 October 1971	Greenpeace is established in Vancouver, Canada.
5 June 1979-16 June 1979	The 1st UN Conference on the Human Environment (UNCHE) and United Nations Environment Program (UNEP) are held.
6 March 1980	The concept of sustainable development appears for the first time in World Conservation Strategy (WCS) in Toronto, Canada.
6 March 1995 - 12 March 1995	The World Summit on Social Development takes place in Copenhagen.
21 March 1997-22 March 1997	The 1st World Water Forum takes place in Marrakech.
6 September 2000 - 8 September 2000	The Millennium Development Goals are established.
12 December 2015	The Paris Agreement becomes legally enforceable.
1 January 2016	The 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development come into force.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

The Paris Agreement

The United Nations Framework Convention on Climate Change (UNFCCC) approved the Paris Agreement, a worldwide accord, in 2015. By reducing global warming to far below 2 degrees Celsius over pre-industrial levels and pursuing efforts to limit warming to 1.5 degrees Celsius, the Paris Agreement seeks to address the issue of climate change. A number of clauses in the Paris Agreement are designed to aid in the transition to a more sustainable future, including that countries are expected to submit Nationally Determined Contributions (NDCs), which are plans describing the steps they will take to cut greenhouse gas emissions and prepare for the effects of climate change. These goals are meant to be ambitious and represent the person. The Paris Agreement is a non-binding treaty which aims to reduce global emissions of greenhouse gasses. It is up to individual countries to meet their commitments under the agreement. The Paris Agreement does not have any enforceable targets for reducing emissions.

The ICLEI Local Governments for Sustainability

A global network of local governments and other organizations, ICLEI Local Governments for Sustainability (ICLEI) is dedicated to advancing sustainability and addressing climate change. ICLEI was established in 1990 and currently has more than 1,750 member organizations in more than 100 nations. ICLEI offers a variety of tools and assistance to assist local governments in achieving sustainability. It aims to support its member organizations in putting sustainable development policies and practices into effect. ICLEI assists its members in attaining sustainability in a number of critical areas, including providing direction and technical assistance. On a variety of sustainability-related topics, including climate change, energy, waste management, and transportation, ICLEI offers its members technical help and advice. This assistance comes in the form of training, tools, and resources. Overall, the work of ICLEI has had a positive impact on sustainability at the local level, helping to promote and support the adoption of sustainable practices and policies by cities, towns, and regions around the world.

The New Urban Agenda

The New Urban Agenda is a plan for achieving sustainable development in cities and urban areas. It was adopted by the United Nations in 2016 as part of the UN's Sustainable Development Goals. The New Urban Agenda recognizes the important role that cities and urban areas play in addressing global challenges such as climate change, inequality, and poverty. It sets out a vision for making cities more inclusive, safe, resilient, and sustainable, and provides guidance on how to achieve this vision through a range of strategies and policies. These include promoting compact, mixed-use development; increasing access to affordable housing and basic services; improving public transport and mobility; and fostering environmental sustainability. The New Urban Agenda also emphasizes the importance of involving all stakeholders, including local governments, community organizations, and the private sector, in the planning and implementation of sustainable urban development. As a result, it is up to individual nations, cities, and other stakeholders to take action to implement the agenda and move toward the document's aims and values.

POSSIBLE SOLUTIONS

The reduction of consumption and waste

Reducing consumption and waste is a critical aspect of creating sustainable and safe cities. By reducing the amount of resources used and waste produced, cities can conserve natural resources, reduce greenhouse gas emissions, and improve overall environmental health.

One of the key ways to reduce consumption and waste is through promoting sustainable consumption and production practices. This can involve encouraging individuals and businesses to adopt more environmentally-friendly products and practices, such as reducing the use of single-use plastics, and promoting recycling and composting programs. In addition, cities can also implement policies and regulations aimed at reducing waste, such as mandatory recycling programs, and ban on single-use plastics.

Investing in sustainable infrastructure, such as closed-loop waste management systems, and promoting sustainable transportation options, such as public transit, biking, and walking, can also help to reduce waste and promote sustainability.

However, reducing consumption and waste can also present challenges. For example, reducing waste and promoting sustainability can require significant investments in new infrastructure, and there may be resistance from individuals and businesses who are heavily invested in unsustainable practices.

Despite these challenges, the long-term benefits of reducing consumption and waste make it a necessary goal for creating sustainable and safe cities. By working together, cities, communities, businesses, and governments can make a difference in reducing waste and promoting sustainability for future generations.

The use of renewable resources

The use of renewable resources is an important aspect of creating sustainable and safe cities. Renewable resources are those that can be replenished naturally over a relatively short period of time, such as wind, solar, and hydropower, and are considered more sustainable than non-renewable resources like fossil fuels.

Adopting renewable resources can have numerous benefits for cities, including reducing greenhouse gas emissions, improving air quality, and promoting energy independence and security. Additionally, the use of renewable resources can create new economic opportunities, such as jobs in the renewable energy sector, and help to reduce poverty and inequality by providing access to affordable and reliable energy.

However, transitioning to a more renewable energy-based economy can also present challenges. For example, the upfront costs of transitioning to renewable energy sources can be high, and there may be a need for significant investments in new infrastructure. There may also be resistance from existing energy interests and utilities that are heavily invested in non-renewable energy sources.

Despite these challenges, the long-term benefits of transitioning to renewable resources make it a necessary goal for creating sustainable and safe cities. This can be achieved through a combination of government policies and incentives, investment in renewable energy infrastructure, and greater public awareness and education about the benefits of renewable energy.

Ultimately, the use of renewable resources is an important step towards creating more sustainable, resilient, and equitable cities that are better equipped to respond to the challenges of the 21st century.

The promotion of social equity

Implementing social equity requires a multi-faceted approach that addresses root causes of poverty and inequality, and creates opportunities for all individuals and communities to thrive.

This includes making changes to economic and political systems to ensure equal access to resources and opportunities, and addressing systemic issues such as unequal distribution of resources, economic disparities, and political marginalization.

In order to effectively implement social equity, it is important to engage communities in decision-making processes, and empower them to take action on issues that affect their lives. This can be done by promoting diversity, inclusion, and respect for human rights, and by encouraging sustainable consumption and production practices.

Advocating for policies that promote equal opportunity and justice, such as fair wages, anti-discrimination laws, and affordable housing, can also help to reduce poverty and inequality and promote greater social equity.

Finally, providing access to quality education and healthcare, and supporting small businesses and community organizations, can help to create economic opportunities and improve the overall well-being of individuals and communities.

Implementing social equity is a complex process that requires sustained effort and collaboration between various actors, including governments, communities, businesses, and civil society organizations. However, the long-term benefits of creating more equitable and inclusive societies make it an important and necessary goal.

Enhance Public Safety

Enhancing public safety is essential for creating sustainable and safe cities. One key component of this is improving the physical design of cities through crime prevention

through environmental design (CPTED) principles. This involves designing physical spaces, such as parks and public areas, to reduce the opportunity for crime by improving visibility, lighting, and accessibility. Another key component of public safety is community policing, which involves working closely with local communities to develop and implement strategies to reduce crime and increase trust between law enforcement and the public. This can involve a variety of activities, such as community meetings, youth programs, and outreach initiatives, to build stronger relationships between law enforcement and the community and promote a sense of safety and security.

Implementation of Smart City Technologies

Smart city technologies can play a crucial role in making cities more sustainable and safe by enabling the efficient use of resources, improving services and infrastructure, and enhancing public safety. For example, the use of real-time data analytics can help city officials make informed decisions about the allocation of resources, such as where to deploy emergency services, which can reduce response times and improve safety. IoT-enabled devices can also be used to monitor and optimize energy usage, reduce waste, and improve the management of public assets like streetlights, water systems, and traffic management systems.

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