

Chapter 2 A look towards the sustainable development of cities and communities in Mexico

Capítulo 2 Una mirada hacia el desarrollo sostenible de ciudades y comunidades en México

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Abstract

The purpose of this research is to gather knowledge to meet the concerns and needs of the population based on the proposals of the 2030 agenda for sustainable development in number eleven, related to sustainable cities and communities, for this purpose a documentary investigation is presented, supported by expert testimony, own experience, and a questionnaire (google forms). Based on its depth, it is considered exploratory with a descriptive tendency. Among the main findings is the need to generate social, economic and environmental indicators according to the problems of each city or community for the sustainability of these and the planet.

Cities, Sustainable Development, Objectives

Resumen

Esta investigación tiene como finalidad reunir los conocimientos para conocer las preocupaciones y necesidades de la población con base a los planteamientos la agenda 2030 para el desarrollo sostenible en el numeral once, relacionado con ciudades y comunidades sostenibles, para tal efecto se presenta una investigación documental, apoyada en testimonio de expertos, la experiencia propia, y un cuestionario (google forms). Con base en su profundidad, se considera exploratoria con tendencia descriptiva. Entre los principales hallazgos se observa la necesidad de generar indicadores sociales, económicos y ambientales acorde a la problemática de cada ciudad o comunidad para la sostenibilidad de estas y del planeta.

Ciudades, Desarrollo Sostenible, Objetivos.

Introduction

The goals for sustainable development according to the 2030 agenda are a great challenge for the world and in particular for Mexico. The degradation of soil, air and water in cities and communities cause the destruction of ecosystems and the displacement of communities, particularly those engaged in productive activities, and pose an increasing threat to a safe and healthy environment. Poverty and environmental degradation are also closely linked, creating environmental stresses, the main cause of the continued deterioration of the global environment being unsustainable patterns of consumption and production, especially in highly urbanized and industrialized areas. Which have as a challenge to prioritize the development of sustainable communities and cities taking into account the particularities and characteristics of their territory, consequently, it allows to ensure a healthy environment. In this process of appropriation of knowledge, cities are important witnesses of history and cultural transformations.

It addresses the approach to the problem, literature review and the results in which the impact on indicators such as: end of poverty, zero hunger, clean water and sanitation, affordable clean energy, decent work and economic growth, industry, innovation and infrastructure, reduction of inequalities, sustainable cities and communities, responsible production and consumption, Climate action Among the main results are several proposals to identify the elements of sustainable cities and communities.

Methodology

The research is mixed based on the scope of its objective and exploratory with a descriptive tendency based on the depth of the study. By the origin of its data it is mixed, since it is supported by documents and the perceptions of the respondents. Whose purpose is to identify the general conditions that favor the inclusion, security, resilience and sustainability of the Mexican population (or another context), in the city or province.

History of the problem

The generation of habitats begins its history from caves and caverns, later settlements without streets, later people walked, under roofs of adobe, wood and cane, years later walled towns emerged that used nature, be it water, species or soil conditions to protect yourself. Some of these elements have been decisive in the type of construction as well as the climate (the seasons of the year) and the need for security.

Currently, there are several types of cities, some with more infrastructure development are served with smart urban transport networks, water supply and sewage facilities, with ecological ways of lighting and heating buildings, safer public spaces and concentrated services. In contradiction, cities consume 78% of the world's energy and produce more than 60% of greenhouse gas emissions and waste, in addition to accelerated exponential growth (Un Global Compact, 2022).

Definition of the problem

In the world, six out of ten people live in areas considered urban (ONU, 2023), this situation may seem positive since cities and metropolitan areas are places identified as having the highest economic growth, they also contribute approximately 80% of world GDP. However, they also account for around 70% of global carbon emissions and more than 60% of resource use (UN, 2022).

Rapid urbanization is resulting in increasing numbers of slum dwellers, inadequate and overburdened infrastructure and services (such as waste collection and water and sanitation systems, roads and transportation), which is worsening air pollution and uncontrolled urban growth (ONU, 2023).

In various contexts, environmental degradation has a negative impact on the health, well-being and quality of life of the population.

Currently, in Mexico there are great challenges in cities such as: accelerated growth and expansion, demographic transition processes with new types of families, smaller homes and new housing demands, the climate crisis and deep social inequality.

As well as environmental problems of various kinds related to the urbanization of large tracts of agricultural land or those with high environmental value, greater emissions of pollutants and increased water stress; economic, such as the loss of productivity due to increased travel times or traffic congestion; and social, such as the increase in socio-spatial segregation or inequality in access to urban goods.

In Mexico, the National Council for the Evaluation of Social Development Policy (CONEVAL, 2021), has reported, in the period 2018 and 2020, the percentage of the population in a situation of poverty at the national level went from 41.9% to 43.9%. This change represents an increase of 3.8 million people, from 51.9 to 55.7 million people. During this same period, the population in extreme poverty went from 7.0% to 8.5%.

Thus, a Mexican family with four members, father, mother and two children requires an average income of \$6,667 pesos per day to live with dignity, which allows covering basic expenses for food, clothing, medicine and home, currently in contradiction with the salary The general daily minimum is 207 pesos, which is three times less than the basic required (data projected based on (Policy, 2021).

Justification

Whether in the city or in the province, it is necessary to cooperate in the fundamental task of addressing the consequences of climate change and insecurity, as well as eradicating poverty, as an essential requirement to achieve sustainable development, in order to reduce inequalities of living standards and better meet the needs of the majority of the world's population.

In various contexts, environmental degradation has a negative impact on the health, well-being and quality of life of the population, since the growth of cities brings with it a series of emerging problems that require investment and adequate management of the supply of natural resources as well as the treatment of waste generated.

Objective

General objective:

Gather knowledge with the intention of identifying the priority needs of the population towards sustainable development based on the 2030 agenda.

Specific objectives:

1. Develop the methodological structures and strategies
2. Review the theories that support the proposal
3. Adopt the ideas that serve in the generation of valid arguments.

Development of the topic

The Sustainable Development Goals are “the blueprint for a sustainable future for all. They are interrelated with each other and incorporate the global challenges that it faces every day, such as poverty, inequality, climate, environmental degradation, prosperity, peace and justice” (ONU, 2022).

Sustainable Development

In 2015, the 2030 Agenda for Sustainable Development was adopted, an action plan in favor of people, the planet, prosperity, the strengthening of universal peace and access to justice. In it, agreements were generated to meet the needs related to the end of poverty, zero hunger, health and well-being, quality education, gender equality, clean water and sanitation, affordable and non-polluting energy, decent work and economic growth, industry innovation and infrastructure, reduction of inequalities, sustainable cities and communities, responsible production and consumption, climate action, underwater life, life of terrestrial ecosystems, peace, justice and solid alliances institutions.

Every individual has the right to a healthy and productive life, in harmony with nature, therefore, it is necessary to implement policies that promote sustainable development and in turn the balance between the economic, environmental and social, prolonging the current enjoyment and the future. future generations.

Sustainable cities and communities

After reviewing a variety of concepts, documentaries, the ranking of sustainable cities and communities where city models and quality of life stand out in places such as: London, New York, Paris and Tokyo. In Mexico, metropolitan areas such as: Guadalajara, Hermosillo and Culiacán (Public Policy Research Center, 2022).

Also, multiple indicators are observed such as: lack of quality and housing spaces, lack of access to basic housing services, vertical housing, intra-urban housing, people who arrive at school or work in less than 30 minutes, index urban surface growth vs. population growth, proper disposal of urban solid waste, air quality management, air quality management programs, density of urban green areas, pedestrian accessibility to green areas and per capita (Center for Public Policy Research, 2022).

Thus, a sustainable city or community is perceived as "those that achieve the full realization of the rights of their inhabitants, which consider access to housing, drinking water and sanitation, food security, access to health, education, resilient infrastructure, mobility and a healthy environment, for harmonious and respectful human development with the nature that inhabits and integrates" (Argentina.gob.ar, 2023).

Likewise, the sustainable city is resilient to the adverse impacts of climate change, identifies and strives to reduce the vulnerabilities of its population and increases adaptive capacity, in addition to managing disaster risks and reducing the environmental impact of its activities by promoting modalities of sustainable consumption and production, according to the specific territorial, geographical, social, economic and cultural conditions.

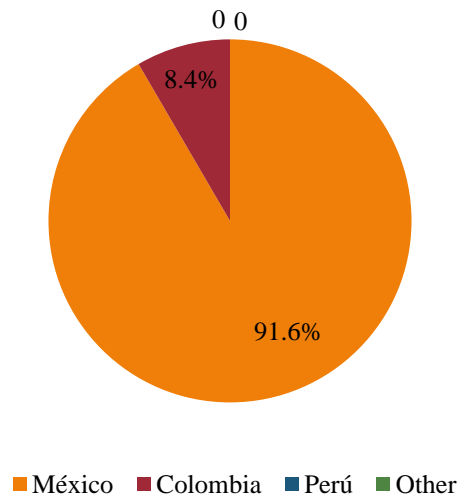
Also, it is a space of cultural belonging where ties are built between present and future generations, a territory where human inclusion and the survival of species are achieved and effective conditions of participation are ensured regardless of their social or economic condition in all levels and activities.

Finally, cities must be understood from a systemic perspective with a dynamic individual interaction between the environmental, social and economic system.

For this purpose, a google forms (questionnaire) was applied to 63 people of Mexican or Colombian nationality (see graph 1), through a simple non-stratified random sample.

Graph 1 Residence

Wich country do you live?

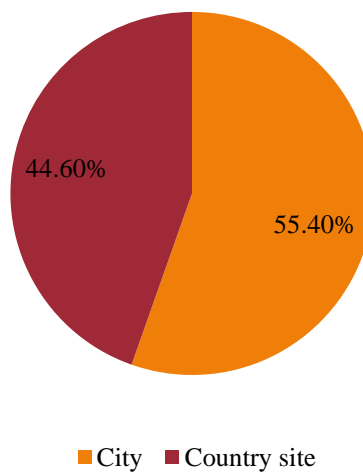


91.6% are Mexican and 8.4% Colombian.

Of which, 44.6% live in the province and 55.4% in the city.

Graph. 2 Context

Do you live in a city or in a country site?



55.4% live in the city and 44% in the province.

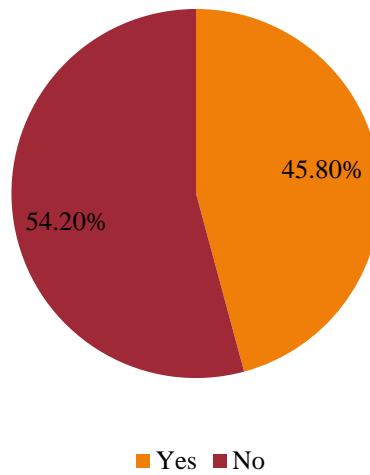
The previous ideas raise the ideal of what should be for the achievement of sustainability and to be transferred to the real world, the following proposal is presented:

Poverty

Currently, the minimum wage is 172.87 within the Mexican Republic, which represents 3.60 times less than the minimum required.

Graph 3 Conditions of poverty

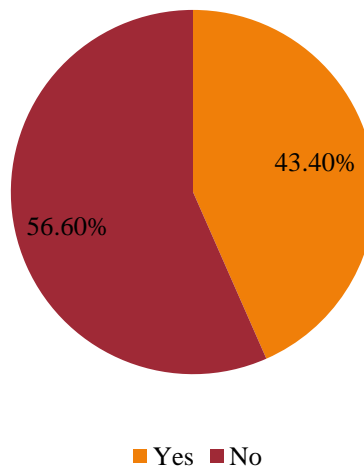
Do you consider that your family or someone close are on de poverty situation?



Of those surveyed, 45.8% do not live in poverty (from their perspective) and 54.2% do.

Graph 4 Access to cover basic needs

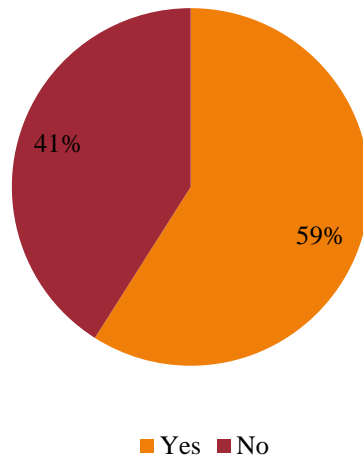
In the last month, has your family or someone close to you experienced a situation in which you did not have money to cover any basic need such as food, health, services or access to housing?



56.6% of the population at some point in the year has not been able to meet their basic needs.

Graph.5 Spending Options

At sometime of this year have you had to decided between pay for medicines, food, tuition, buy clothes, shoes or have fun?



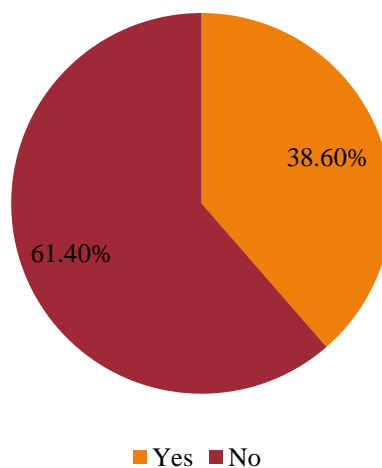
59% of the population has sacrificed their fun for the satisfaction of basic needs.

Feeding

The Ministry of Agriculture and Social Development (SADER) in Mexico estimates that food production will grow by 0.5% in 2022. Likewise, due to the world population increase by 2050, the global population will need 70% more food to satisfy demand (Possehl, 2022). Currently, the soils, oceans, seas, forests and biodiversity in Mexico are being rapidly degraded. Climate change and global warming generate greater pressure on the country's natural resources and increase the risks associated with disasters such as droughts and floods, in addition to the fact that many farm workers have migrated to the cities in order to improve their quality. of life. The goal is to end hunger, as malnutrition makes people less productive and more prone to disease. In Mexico there are almost 800 million people who suffer from hunger (Public Policy Research Center, 2022).

Graph. 6 Absence of feeding

¿Do you consider that your family or someone close have you gone hungry against your will at any time this year?



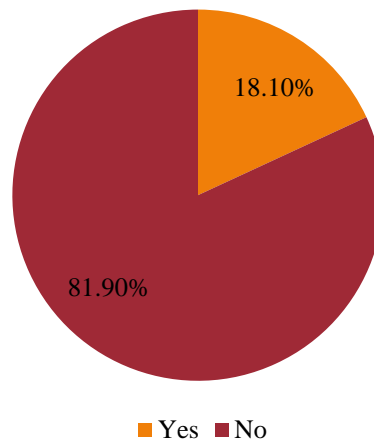
38.6% of the population studied has gone hungry against their will. 61.4% do not go hungry.

Water

Droughts in several states of the Mexican Republic exacerbate hunger and malnutrition and diseases caused by the poor quality or absence of drinking water, which exacerbates the increase in chronic-degenerative diseases such as kidney failure.

Graph 7 Access to drinking water

Over the course of this year, has your family or someone close to you found yourself unable to obtain safe drinking water for human consumption?



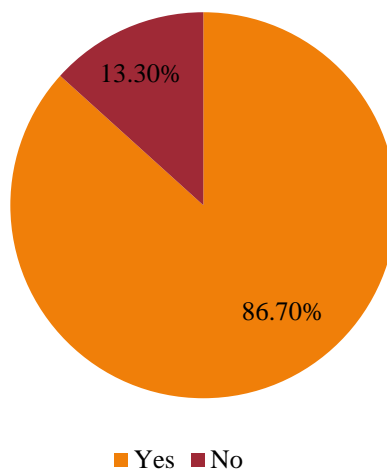
81.9% do not have drinking water problems. 18.1% do.

Energy

Energy is basic for the development of any activity related to the management of technology, jobs, security, food production or to increase income, advertising, among others.

Graph 8 Access to electricity

Does your family and close relatives have access to electricity all the time?

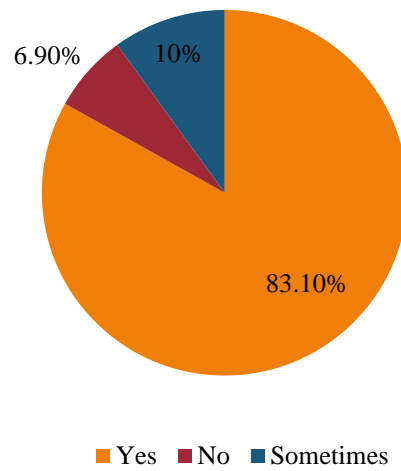


86.7% do have access to electricity, 10% sometimes, 3.3% do not have access to electricity.

Affordable non-polluting energy. Access to electricity and fuels is still a pending need to meet and with special concern, access to energy and non-polluting fuels.

Graph 9 Access to gas

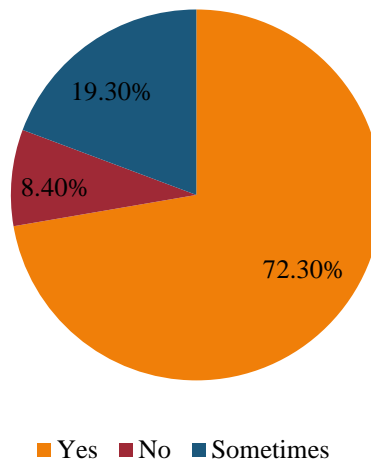
Do your family and close relatives have access to fuel (gas) all the time?



83.1% have access to gas, 10% sometimes and 6.9% do not have access to gas.

Graph 10 Access to gasoline

Do your family and close relatives have access to fuel (gasoline) all the time?



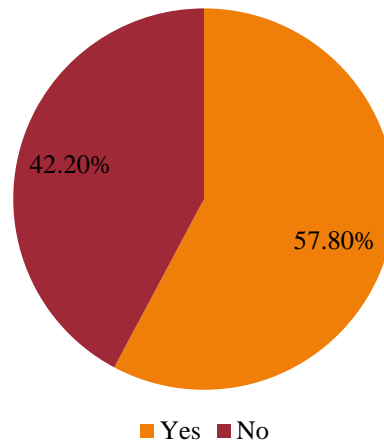
72.3% do have access to gasoline, 8.4% do not and 19.3% sometimes.

Work and economic growth

Currently, having a job does not guarantee escape from poverty, large investments and consumption are commonly required. Otherwise, it is a slow and uneven progress.

Graph 11 Access to employment

Has your family or someone close to you in the course of this year been in a situation of not being able to get a decent job or an opportunity for economic growth?



During the year, 57.8% had difficulties finding a decent job. 42.2% do not.

Decent work and economic growth.

Inclusion

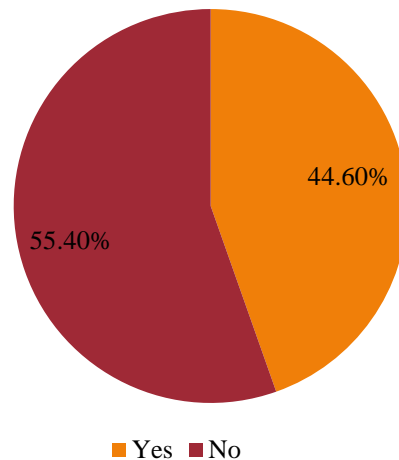
Through an orderly policy of prevention, correction, and development, Mexico can address the problems it faces, in a way that allows it to continue to prosper and grow, and at the same time make better use of resources, reduce pollution, poverty, and inequalities.

Sustainable cities and communities

Cities and human settlements are required to be inclusive, safe, resilient and sustainable.

Graph 12 Healthcare Security

Does your family or someone close to you, in case of getting sick, have the peace of mind that they will receive the necessary medical attention and treatment?



55.4% do not have the tranquility of medical assistance in case of becoming ill. The rest 44% yes.

Results and Analysis

The environmental, social and economic problem currently presents a situation of alert regarding the exponential growth of these and the deterioration of natural resources.

Setting limits is basic, in economic policies, production, consumption and disposal of waste. In these proposals there is no waste or waste, everything is viable for use. Each initiative has support for its implementation and requires a specific study.

All the problems identified in the google forms are areas of opportunity to move towards sustainable development. However, facing climate change, moving towards affordable energy, restoration and sanitation of the environment, decent work and access to food security as well as health are currently priorities.

As well as the implementation of development plans in cities and communities with three components: social, environmental and economic:

One. The social component is an indicator that measures the development of the quality of life and the services that cities provide to their inhabitants, including health, education and work.

Two. In environmental factors, sustainable infrastructures and initiatives to reduce and eradicate pollution are considered.

Three. The economic indicator should identify the benefits they obtain from jobs and business infrastructures.

Conclusions

It is necessary to reflect that without the environment, there is no social and much less economic development. It is imperative to recover environmentally friendly production systems, stop the indiscriminate use of resources and re-educate the population in such a way that ecological deterioration can be reduced, and the environment cleaned up and recovered.

Likewise, there is no ideal type of uniform sustainable city, but it is formed according to its own characteristics of each region, population, historical and cultural process.

In this way, it is necessary to carry out a thorough review of the different cities according to their dimensions and characteristics, including large cities, emerging cities, medium-sized and small communities, ensuring that the public policies to be developed result from participatory processes that meet the needs and characteristics of each city, putting people at the center of decision-making.

As well as implementing a development plan, an alliance between the powers of the state, an alliance between people, politicians and institutions as well as the Climate Change and Energy Transition Law and application of the Circular Economy Law with the intention of mitigating the climate crisis.

Undoubtedly, the digitization of habitats and the use of clean energy will open up sustainable futures for cities and a green investment opportunity for companies in the areas of "connectivity, mobility, citizen participation and disaster management, planning their growth and provide immediate responses to emerging problems.

Investments in wind and solar energy in homes and businesses, electrification of transport or non-polluting means for the movement of people and goods and security are a key piece of development, wastewater treatment, waste management and recovery of green areas with community projects.

Finally, citizens, public and private companies and cities must be protagonists of inclusion in this transformation towards sustainable development..

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