



# Revista Venezolana de Gerencia





# Bases for a public policy on sustainable urban mobility during COVID-19

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## Abstract

Sustainable urban mobility is essential for the proper functioning of cities, favoring transportation models that consume fewer resources and generate lower environmental costs. In contexts of health emergencies such as the COVID-19 pandemic, it becomes especially relevant by allowing the establishment of the necessary social distancing to break the chain of contagion. The objective of this study was to characterize the current situation of urban mobility in the city of Trujillo, Peru, and establish bases for the design of relevant public policies and interventions during the pandemic. The methodology used was cross-sectional, descriptive, and with a mixed approach, applying surveys to a sample of 384 citizens and in-depth interviews with nine specialists. The data were processed with SPSS-26 and [ATLAS.ti](#) v9. As results, it was found that 83.3% of citizens are willing to use bicycles, 87.2% indicate the need to implement bike lanes, and 91.1% highlight that this type of mobility prevents the spread of COVID-19. It is concluded that there is a low preference for sustainable modes of transportation and a high dependence

Recibido: 13.11.23

Aceptado: 10.06.24

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on private motorized transportation in Trujillo prior to the pandemic. However, there is a marked willingness among citizens to use bicycles if proper conditions are enabled, since it is perceived as an effective way to prevent contagion, reduce pollution, promote healthy habits, and facilitate labor accessibility. Therefore, it is suggested that there is an urgent need to formulate public policies aimed at promoting sustainable urban mobility, contemplating cycling infrastructure, awareness campaigns, and regulations that prioritize non-polluting and safe modes of transportation.

**Keywords:** urban mobility; bicycle; bike lanes; COVID-19; pandemic.

# Bases para una política pública de movilidad urbana sostenible durante COVID-19

## Resumen

La movilidad urbana sostenible es fundamental para el adecuado funcionamiento de las ciudades, favoreciendo modelos de transporte que consumen menos recursos y generan menores costos ambientales. En contextos de emergencia sanitaria como la pandemia de la COVID-19, cobra especial relevancia al permitir establecer el distanciamiento social necesario para frenar la cadena de contagios. El objetivo de este estudio fue caracterizar la situación actual de la movilidad urbana en la ciudad de Trujillo, Perú, y establecer bases para el diseño de políticas públicas e intervenciones pertinentes durante la pandemia. La metodología empleada fue de corte transversal, descriptiva y con enfoque mixto, aplicando encuestas a una muestra de 384 ciudadanos y entrevistas a profundidad a nueve especialistas. Los datos fueron procesados con SPSS-26 y [ATLAS.ti](#) v9. Como resultados, se encontró que el 83.3% de los ciudadanos están dispuestos a utilizar bicicletas, el 87.2% indica la necesidad de implementar ciclovías, y el 91.1% resalta que este tipo de movilidad previene la propagación de COVID-19. Se concluye que existe una baja preferencia por medios de transporte sostenible y una alta dependencia del transporte motorizado privado en Trujillo previo a la pandemia. No obstante, hay una marcada disposición ciudadana a usar bicicletas si se habilitan condiciones adecuadas, dado que se percibe como una forma efectiva de prevenir contagios, reducir la contaminación, fomentar hábitos saludables y facilitar la accesibilidad laboral. Por ello, se sugiere la necesidad imperiosa de formular políticas públicas orientadas a impulsar una movilidad urbana sostenible, contemplando infraestructura ciclista, campañas de concientización y regulaciones que prioricen medios de transporte no contaminantes y seguros.

**Palabras clave:** Movilidad urbana; bicicleta; ciclo vías; COVID-19; pandemia.

## 1. Introduction

Sustainable Urban Mobility (SUM) is one of the foundations that maintains

the functioning of the international urban system (Lange Valdés, 2011). It is the set of planned strategies and measures aimed at recovering the quality of urban

space and improving the movement of people and goods (urban logistics), favoring transportation models that consume fewer natural resources and cause fewer environmental costs (Ministry of Housing Construction and Sanitation, 2016). It is also a viable alternative to establish social distancing, necessary to stop the chain of contagion in case of health emergencies. The MUS is carried out through effective urban interventions aimed at reorganizing access to urban populated centers and favoring pedestrian and vehicular circulation, improving signage and increasing levels of road safety; necessary to minimize the negative effects on the environment and the quality of life of citizens.

Linked to the aforementioned, global governance has been managing modern cities where citizens can satisfy their basic needs in a practical and safe manner. One way to achieve this has been through the management of an SUM that allows for the treatment of public space where the citizen is the protagonist (Motos, 2019). To substantiate the need for SUM, one must start from the outdated approaches to urban transportation that have prevailed over time.

Being a fact that the model based on the priority use of motorized vehicles is incongruent with the current bases of sustainable development, since it affects people's quality of life, the economy, health and the environment (Mataix, 2010), on the other hand it is misaligned with the Sustainable Development Goals; especially objectives 3, 9, 11 which states in that order: "Ensure healthy lives and promote well-being for all at all ages". "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation". "Make cities and human settlements

inclusive, safe, resilient and sustainable" (United Nations, 2017).

On the other hand, when it comes to counteracting the problems of SUM, European cities have set the milestone in the comprehensive planning of urban mobility, deploying efforts of all kinds to achieve a more sustainable mobility model (Vega, 2018). Documented experiences in Europe and the rest of the world foster a different perspective of SUM, where urbanism is conceptualized as the quality of life of citizens, in economically efficient and environmentally sustainable transportation (Lupano and Sánchez, 2009). Thus, governments are responsible for providing public transportation to cities and coordinating other modes of transportation in favor of a modern social.

Recent studies highlight the advantages, importance and needs to be addressed in relation to the implementation of SUM in favor of citizens and the environment. The primary starting point for managing this type of mobility consists of establishing clear definitions of the necessary conditions for this mobility and its legal formalization (Alcántara, 2010). At the same time, it is necessary to manage government processes that allow progress towards an SUM that enables the adaptation of bike lanes. This adaptation must be accompanied by awareness campaigns for the use of these means of transportation, the result of which is a social and environmental benefit (Gutiérrez-Gallego and Pérez-Pintor, 2019). Thus, the results would be quantifiable in the medium and long term.

The management of SUM, which puts the implementation and use of bike lanes as a strategy, allows for road safety, economic savings, and improved

people's health (Vega, 2018). In this sense, the World Health Organization (WHO) establishes that one of the fundamental rights of people is the enjoyment of health, which includes timely, accessible access to quality health services; avoids discrimination by age, sex, race or others; and requires states to formulate and reformulate public policies, laws and measures that contribute to this (World Health Organization, 2017). It also promotes physical activities in order to mitigate chronic diseases such as obesity, hypertension, diabetes, which are risk factors for COVID-19. Physical activity strengthens the respiratory and immune systems, maintains physical condition, and favors mental health (Mera et al, 2020).

In the current pandemic scenario, it is a priority for local governments to guarantee the protection of rights and health of the population through the provision of adequate public services, prioritizing attention to the vulnerable population. Universities and the student community should join this great effort (Soto and Gómez, 2020); also the use of timely and massive data to support decision-making to strategically project urban mobility planning (Sabino et al, 2019). The simple fact of progressively establishing bike lanes is an ambitious bet whose main benefit is road safety for people. In summary, the implementation of SUM is at least necessary and undoubtedly involves prioritizing collective needs, demotorizing daily road use and revaluing social transportation needs (Vanegas and Vanegas, 2020) for safe transportation.

In Peru, SUM is a consequence of an urban spatial model characterized by the disorderly growth of the vehicle fleet. There is a centralization of trips towards the capital cities of each region

and within them in each district. Related to this, the city of Trujillo (a city located in northern Peru), having one of the main urban facilities and trip attraction centers in the country; in recent times, the increase in business activity, credit facilities, and current public policies favor the use of private transportation (Motos, 2019). Therefore, transportation needs in general have been elementary motivations for people to acquire vehicles, resulting in an increase in the regional vehicle fleet, gradually displacing public transportation.

Faced with this situation, the Provincial Municipality of Trujillo (PMT) has developed management instruments aimed at ensuring the implementation of policies on sustainable mobility and transport, where General Urban and Interurban Transport Policies and Objectives are approved. The most outstanding policy is the one that approves the SUM Plan for the city until 2020, which establishes the prioritization of pedestrian transport, non-motorized vehicles, and mass transportation of people; as well as the promotion of the renewal of the vehicle fleet for public transportation, to help reduce environmental pollution levels. Subsequently, through a Municipal Ordinance, the PMT creates the Integrated Transportation System of Trujillo, with the purpose of improving the quality of life of the population and urban mobility through the implementation of an accessible, safe, effective, efficient, environmentally friendly and profitable public transportation service for its operators; as well as non-motorized and pedestrian modes.

In a diagnosis developed for the preparation of the SUM Plan for Trujillo, it has been evidenced that the current urban mobility system is neither

efficient nor sustainable, resulting in the deterioration of environmental quality, damage to the life and health of citizens, an increase in the rate of morbidity and mortality on the road, as well as a reduction in productivity in terms of urban transportation. Currently, Trujillo's modal share represents urban transportation, made up of minibuses and rural vans at 31.2%, taxis at 25.4%, and collective cars at 8.3%. In the case of private transportation (understood as vehicles for non-profit purposes), it represents 15.5%, non-motorized transportation, represented by bicycles at 1.1% and walking at 8.4% (Provincial Municipality of Trujillo, 2020). This evidences that low-capacity vehicular transport is prioritized for commuting, generating greater congestion and emission of polluting gases.

These conditions, the arrival of COVID-19, and the start of the mandatory quarantine declared by the Peruvian government, gave rise to the gestation of new public policies focused on preventing the transmission of the pandemic through the implementation of bike lanes on all the main arteries of the city as an expression of a new vision of SUM (Albalade et al, 2022; Barbarossa, 2020; Nesmachnow & Tchernykh, 2023). This temporary measure has as a precedent major city such as Bogotá, Berlin, Lima, Tirana, Paris, Brussels, among others (Aguirre et al, 2020), which quickly established guidelines for the process of implementing temporary bike lanes as a viable response to counteract the spread of COVID-19 and preserve people's health.

What has been addressed so far highlights the need to implement public policies in urban mobility, which is sustainable in the face of the possibility of a new way of life and coexistence

among people; in line with this, the present study aims to characterize the current situation of urban mobility in the city of Trujillo, Peru, as a basis for the design of relevant public policies and interventions in times of pandemic and new subsequent scenarios; it is based on current international and national regulations, successful experiences from other countries, the opinion of specialists on the subject, and what the people of Trujillo expressed when they were surveyed about the need to change the current urban transportation dynamics for a more efficient, modern and sustainable one.

## 2. Methodological aspects

The study has a cross-sectional, descriptive design; for this, methodological complementarity has been used. In this regard, it is noteworthy that its principle incorporates the value of complexity and dialogue between actors from diverse approaches in its logic, since "it allows integrating the perception of reality, overcoming the fragmentation of knowledge, and the need to approach it from many angles to analyze the diversity of the real" (Blanco & Pirela, 2016). For the quantitative research route, a probabilistic sample was calculated based on a population of 314,939 citizens from the Trujillo district, La Libertad region in Peru. The calculated sample size was 384 citizens.

Sample calculation:

$$1. n = (N * p * (1 - p) * Z^2) / [e^2(N - 1) + p * (1 - p) * Z^2]$$

(Equation 1)

Where N: Population, p: Percentage of the population that has the desired attribute, e: Maximum accepted



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$$n = (314,939 * 0.5 * 0.5 * 1.96^2) / [(0.05^2(314,939-1) + 0.5 * 0.05 * 1.96^2)] = 384$$

(Equation 2)

The surveys were applied in January 2021 and the data was processed with SPSS-26 software, whose results are shown in figures to observe trends and regularities in the responses. The interviews were processed with [ATLAS.ti v9](#). The use of the qualitative approach is configured with the phenomenological design of the study, which incorporates the reflections of specialists from their personal and professional experience (Fuster, 2019; Narciso, 2020; Sandoval, 2002).

In the descriptive stage, criteria were developed to select participants such as experience in professional performance linked to urban planning and mobility issues, and an interview script with five semi-structured questions distributed in categories such as: Changes in urban mobility caused by the COVID-19 pandemic; successful experiences in urban mobility strategies; proposals for urban mobility with reduced contagion; and importance of using bicycles as a means of transportation.

In the structural stage, the objective of the study was explained to potential interviewees, the questions were aligned with the categories, and scientific literature was reviewed for the epistemological support of the research. After applying the instrument, the responses were coded according to the a priori categorization carried out. In the discussion stage, the results were interpreted by rescuing the experiences

and diverse approaches of the participants, allowing the construction of blocks of convergences around the categories, with which the complex reality has been visually structured, to then be incorporated into the scientific discourse as an explanation of the studied reality.

Ethical protocols: To safeguard the moral integrity of the participants, anonymity was guaranteed. They were also informed about the purposes of the research and its limits.

### **3. Bases for the design of relevant public policies and interventions during the pandemic. Results and discussion**

This section presents the results of the characterization and perceptions of urban mobility in the city of Trujillo during pandemic scenarios. It shows processed data from the conducted survey and the systematization of specialists' perceptions on sustainable urban mobility.

The results revealed important trends and challenges. In 2018, minibuses and rural vans were the predominant mode of transport, accounting for 31.2%, followed by taxis (25.4%), shared cars (18.4%), and private vehicles (15.5%). Non-motorized modes, such as walking and bicycling, represented 19.5% of daily trips, with bicycles accounting for only 1.1%. During the pandemic, there

was a notable increase in bicycle use, predominantly among men. These trends highlighted the need for public policies that promote sustainable transport modes, improve infrastructure for bicycle use, and reduce reliance on motorized vehicles, thus contributing to public health and reducing urban congestion and pollution.

The results in the study of modal distribution of urban transportation in Trujillo in 2018 revealed that 31.2% of the transportation was attributed to minibuses and rural trucks, followed by 25.4% taxis, 18.4% shared cars, 15.5% private vehicles, 8.4% walking, and only 1.1% bicycles (Table 1).

**Table 1**  
**Modal distribution of urban transport, Trujillo 2018**

Type of transport	Participation
Minibus and rural van	31.2%
Taxi	25.4%
Collective car	18.4%
Private vehicle	15.5%
Walk	8.4%
Bicycle	1.1%
Total	100.0%

Source: Adaptation of the Sustainable Urban Mobility Plan for the city of Trujillo, 2020.

These data are consistent with other urban transportation studies in Peru and similar regions. For example, in Lima, regulatory and enforcement capacity was identified, significantly influencing the distribution of urban transportation, highlighting the importance of proper road resource management to improve transportation efficiency (Sánchez Flórez, 2018). Similarly, in Kabul, it was demonstrated that the lack of adequate policies and deficient public transport contributed to traffic congestion,

emphasizing the need to improve urban transport systems to avoid a worsening vehicle-capacity relationship (Stanikzai & Kajita, 2017).

The study on non-motorized mobility in Trujillo, Peru, reveals that 447,744 daily trips are made on foot or by bicycle, representing 19.5% of all transportation modes. Of these non-motorized trips, 94% are on foot and only 6% by bicycle, highlighting the predominance of pedestrian travel (Table 2).

**Table 2**  
**Non-motorised modes of travel, Trujillo 2018**

Mode of travel	Number of daily trips	Participation
Pedestrian	422,467	94%
Bicycle	25,277	6%
Total	447,744	100

Source: Adaptation of the Sustainable Urban Mobility Plan for the city of Trujillo, 2020.

This situation is comparable to that observed in the Urban Mobility Plan of Ribeirão Preto - SP, which

also emphasizes the importance of non-motorized transportation. However, it faces difficulties in effective



implementation due to the lack of adequate infrastructure, cultural resistance, and insufficient coordination between different levels of government (Rosa et al, 2020).

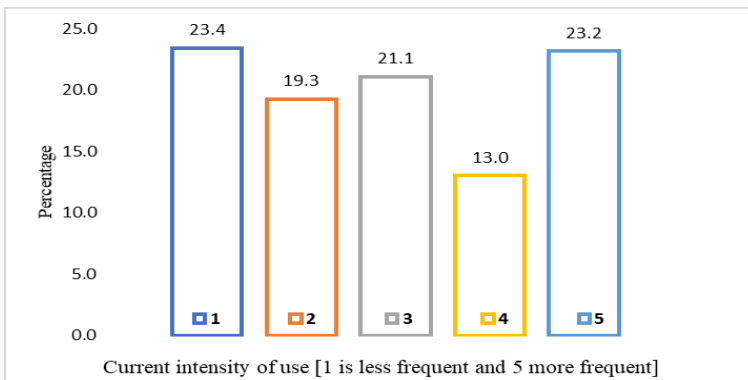
In the pandemic context, the Metropolitan Transport Projects Management Office of Trujillo conducted a count of cyclists circulating on the road during one week (the counters were located at strategic points and at staggered times in 23 points of the city). 3,442 cyclists were counted, of which 302 were women (representing 9%) and 3,140 were men (representing 91%) (Gerencia de Proyectos de Transportes Metropolitanos de Trujillo, 2020).

This finding was very striking and contradicted current global practices, where governments at all levels had been making decisions to encourage the use of bicycles as a safe, economical, healthy, and sustainable means of transportation.

In the COVID-19 context, the use of bicycles as an alternative mode of transport was highly relevant because it helped reduce the maximum occupancy level of public passenger transport vehicles, and mainly reduced infections among citizens who were forced to use public transport as their only alternative. A recent study found that the chances of infection increased with the use of public transport and proposed active transport, such as walking or using bicycles, as one of its preventive strategies (López-Olmedo et al, 2020).

Regarding urban mobility in the city of Trujillo, the survey showed that 23% of people walk less frequently and 23.2% walk more frequently; the other people are at intermediate frequencies ranging from 13% to 21.1% (graphic 1). These results indicate that walking does not have a marked preference among the population in that city.

**Graphic 1**  
**Current Mobilization Frequency: Walking**



Even when there are preferences for the use of automobiles and public spaces encourage this tendency, it is necessary to create the conditions to give opportunity to other types of mobility

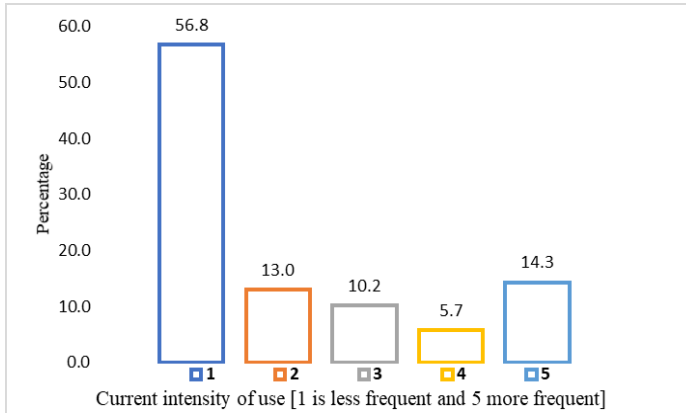
that promote sustainability. Among the variety of means of transport in a city are also walking and bicycles. However, urban sprawl, lack of density in land use, and the concentration of urban functions

in each locality discourages the use of this type of mobility (Pérez, 2020).

Graphic 2 shows that 56.8% of citizens use bicycles as a means of

urban mobility with little frequency, and only 14.33% do so with high frequency, with intermediate frequencies ranging between 5.7% and 13%.

**Graphic 2**  
Current mobilization frequency: Bicycle

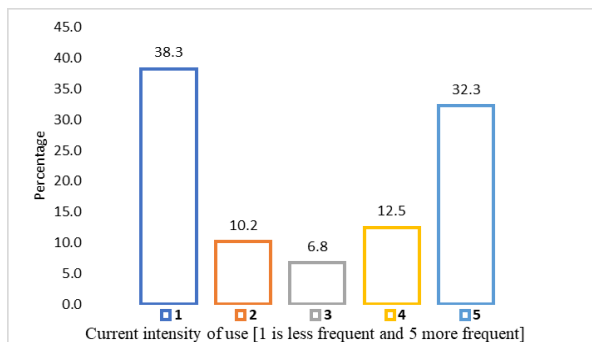


These proportions are observed in studies carried out in other Latin American cities such as Buenos Aires, where researchers identified that people who needed to commute preferred not to use public transportation, with 40% doing so by walking or cycling; while 44% and 14% chose private cars and

taxi, respectively (Singh et al, 2020).

In the case of citizens who use their own cars for urban mobility, the results indicate greater polarization, with 38.3% using it less frequently and 32.3% using it very frequently, with intermediate frequencies ranging from 6.8% to 12.5%, as shown in graphic 3.

**Graphic 3**  
Current mobilization frequency: Own car

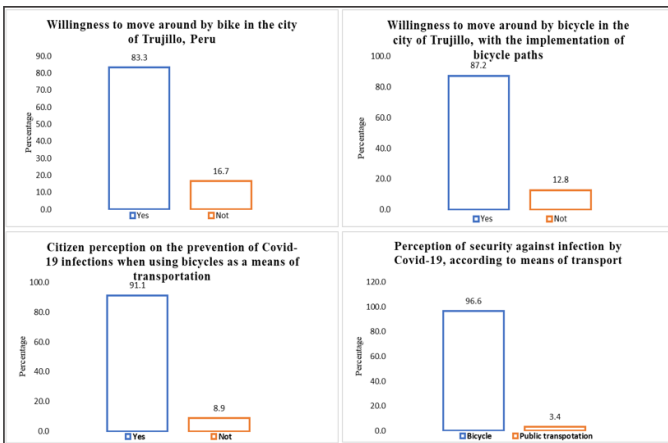


These findings reflect the diversity of car usage patterns in urban areas and align with previous research, which found that in large cities outside the U.S., car usage decreased, favoring more active mobility options such as cycling. Meanwhile, in the U.S., car dependency remained high regardless of city size (Prieto-Curiel & Ospina, 2024). Furthermore, in densely populated cities like Shanghai, commuting behavior was

particularly influenced by proximity to metro stations, with higher car usage among those living in the city center (Chen et al, 2021).

Graphic 4 presents the results of exploring the potential use of bicycles as a public policy to prevent COVID-19 infections. In this regard, 83.3% of citizens are willing to use bicycles for their urban mobility in pandemic contexts.

**Graphic 4**  
**Potential for bicycle use to prevent COVID-19 infection**



This percentage increased to 87.2% when the implementation of bike lanes appears as a facilitator for transportation by this means. COVID-19 generated a decrease in non-motorized activities in densely populated cities; likewise, in less populated cities, walking and cycling activities increased (Zhang & Fricker, 2021). Regarding the prevention of COVID-19 infection when using a bicycle, 91.1% expressed a positive view. Finally, in a comparative analysis on safety against infection when using a bicycle versus public transportation,

87.2% consider that transportation by bicycle is safer.

COVID-19 has also generated changes in mobility patterns. Many users have started commuting by private cars, which goes against the sustainability policies highlighted in the theoretical framework. A study conducted from March to May 2020 in Sicily, Italy, allowed to understand the perceptions, needs, and use of road users of sustainable travel modes (public transport, walking, and cycling). It also found that participants were more likely

to resume remote work even after the second phase to reduce their daily commuting needs and maintain their isolation. Participants have expressed a positive opinion about the use of micromobility during pandemic situations (Campisi et al, 2020). These results can be considered a basis for sustainable urban planning and a guide for decision-makers who intend to promote the use of public transport.

Regarding the changes observed in urban mobility as a consequence of the pandemic, the interviewees highlight that there has been an increase in the use of non-motorized mobility, restrictions on urban transportation due to government provisions, greater use of individual mobility and walking; they also state that citizen pressure has been generated for the modernization of public transportation services (Diagram 1).

**Diagram 1**  
**Conceptual network on dimensions of urban mobility in COVID-19 context**



The specialists, based on their experiences in analyzing references, report that rapid and successful responses have been identified in terms of public policies on urban mobility in the Barcelona and Madrid City Councils and the Canary Islands in Spain, Santiago de Chile, the Municipality of Bogotá, Colombia, and the Municipality of Sahuayo (Mexico).

There is a consensus among the interviewees in highlighting that policies related to bicycle use have proven positive aspects, such as a decrease in environmental pollution, a reduction in vehicular congestion, an improvement in people's health, and a reduced possibility of contracting COVID-19. Urban mobility associated with environmental planning benefits people's health and well-being; they lead to a sustainable, healthy, safe, and socially inclusive city (Fallanca, 2020).

The contributions of the interviewees converge on the view that bike lanes play an important role, as they allow for distancing between people moving through the city and promote equity in the use of public space. In other words, in the psychosocial context, using bicycles as a means of transportation generates a sense of emotional well-being and creates greater value for social capital (Rodríguez et al, 2017). Various studies support this perspective, highlighting that protected cycling infrastructure is preferred by specific demographic groups, such as women, underscoring the importance of designing inclusive infrastructures (Saglio et al, 2023).

Additionally, they highlight the benefits of cycling for public health and pollution reduction, while also emphasizing the need to minimize the risks associated with cycling through the

proper design of bike lanes (Nolan et al, 2021). Furthermore, they demonstrate that bike lanes provide a safer and more predictable riding environment compared to other configurations, emphasizing their relevance in promoting safe behavior for both cyclists and motorists (Duthie et al, 2010).

The use of the bicycle as a means of transportation has advantages, even over the use of electric vehicles. There is a positive impact on quality of life, by reducing pollution, as well as reducing social cost (the cost of driving a car is six times that of a bicycle). There is scientific evidence of health benefits, by reducing the rate of obesity, improving cardiovascular health and morbidity. All this information configures a significant benefit for the health of people who choose to ride a bicycle; even considering the possible health risks of injuries caused by traffic, the health benefits remain positive and even greater when cycling levels increase. As the use of the bicycle as a means of transportation increases, levels of pollution and traffic congestion decrease.

This is affirmed by the Government of the State of Victoria (Australia), which has associated cycling with benefits such as increased cardiovascular fitness, muscle strength and flexibility, improved joint mobility, decreased stress levels, improved posture and coordination, strengthened bones, decreased body fat levels, and prevention or management of diseases (Mateu & Sanz, 2021).

Public policies aimed at promoting the use of bicycles also allow for the exercise of citizen rights regarding traffic in cities and ultimately enable people to go to their workplaces more safely, contributing to economic reactivation. Integrated planning of urban land uses and transportation systems addresses

the development of strategies to increase economic efficiency, reduce excessive use of resources, and improve social aspects. A study conducted in the city of Karbala (Iraq) shows that the scant application of integration strategies between urban land use and the transportation system has led to poor sustainability in the city (Alourafi & Alrawi, 2020).

Finally, concerns about environmental deterioration, the impacts generated by vehicular congestion, and high levels of pollution in urban areas have highlighted the need for new mobility paradigms that reduce the negative impacts of transportation, which are as necessary in the city of Trujillo as in the rest of the world. Currently, there are increasingly complex studies that allow analyzing the direct and indirect impacts of greater bicycle use on the economy. Starting from the example of the start-up cities in Portugal, where the value chain of the bicycle industry is studied; the economic impacts of reduced fuel consumption caused by modal shift; and the value of environmental, energy, and health benefits at the local level (Ferreira et al, 2020). In summary, it is observed that the use of bicycles generates benefits such as social equality, gender equity, social well-being, security, connectivity between people, and inter- and multi-mobility connectivity.

#### 4. Conclusions

The study reveals that in the city of Trujillo prior to the COVID-19 pandemic, there was a highly motorized vehicle-dependent modal distribution of urban transportation. Likewise, of the non-motorized modes of transportation, expressed in daily trips, the vast majority were pedestrian and only a

small proportion used bicycles. This shows a predominance of motorized transportation and low levels of sustainable mobility.

The present study shows that urban mobility in the city of Trujillo during the context of the COVID-19 pandemic has been affected. There is a low preference for sustainable modes of transportation such as walking or using bicycles, with a high dependence on private motorized transportation. However, there is a marked willingness on the part of citizens to use bicycles as a means of transportation if proper conditions are implemented, such as the enabling of bike lanes.

It is noteworthy that the use of bicycles as part of a public policy for sustainable urban mobility brings multiple benefits, including: reducing the possibility of contracting COVID-19 by avoiding mass public transportation, decreasing environmental pollution and vehicular congestion, promoting healthy living habits, and facilitating access to workplaces in times of economic reactivation. It also fosters a culture of respect for pedestrians and democratizes the use of public spaces.

The findings suggest an urgent need to formulate and implement public policies aimed at promoting sustainable urban mobility in the city of Trujillo. These policies should contemplate the construction of cycling infrastructure, citizen awareness campaigns, and regulations that prioritize non-polluting and safe modes of transportation in contexts such as the COVID-19 pandemic.

There are significant benefits to a public policy oriented toward promoting the use of bicycles as a means of transportation in pandemic contexts: a) It democratizes the use of public spaces, b) Citizen rights in the area of urban mobility



are exercised, c) Contagion, pollution, and vehicular congestion are avoided, d) It contributes to improving people's health, and e) It facilitates access to workplaces during times when economic reactivation is important. This study finds significant potential for the design and implementation of a public policy aimed at promoting and encouraging the use of bicycles, including awareness campaigns about their benefits, implementation of adequate road infrastructure, and training for users and citizens in general.

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