

# Environmental perceptions of the urban climate emergency

From blind spot to sustainable behavior

Percepciones ambientales de la emergencia climática urbana.

Del punto ciego al comportamiento sostenible

Percepções ambientais da emergência climática urbana.

Do ponto cego ao comportamento sustentável

Perceptions environnementales de l'urgence climatique urbaine.

De l'angle mort au comportement durable

Source: Own authorship

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## Abstract

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Cities are under siege by climate change due to human activity, technological development, and the excessive use of natural resources, which contribute to the socio-environmental problems that undermine the quality of urban life and the understanding of the contemporary climate emergency. Within this framework, the study of psychological processes anchored to the urban phenomenon allows us to understand how people respond to emergencies; what can be done to counteract the negative effects on the immediate environment, considering that urban development and planning must take into account psychological and social aspects when analyzing the role of cities in the face of climate change, and how a level of awareness must be worked on to generate changes in the population to access a biopsychosocial well-being that promotes sustainable urban behaviors. This paper aims to expose the relationship of human behavior with climate change in cities, its socio-environmental repercussions, and the importance of psychological sustainability as an element that benefits the mitigation of this emergency.

**Keywords:** cities, climate change, perception, urban design, quality of life

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## Resumen

Las ciudades se encuentran sitiadas por el cambio climático como resultado de la actividad humana, el desarrollo tecnológico y el uso excesivo de recursos naturales, elementos que suscriben los problemas socioambientales que merman la calidad de vida urbana y la comprensión de la emergencia climática contemporánea. Dentro de este marco, el estudio de procesos psicológicos anclados al fenómeno urbano permite entender cómo responden las personas ante las emergencias; qué se puede hacer para contrarrestar los efectos negativos en el entorno próximo, considerando que el desarrollo y planificación urbana deben tomar en cuenta aspectos psicológicos y sociales al momento de analizar el papel de las ciudades ante el cambio climático, y cómo debe trabajarse un nivel de concientización para generar cambios en la población para acceder a un bienestar biopsicosocial que promueva conductas sostenibles urbanas. El objetivo del presente escrito es exponer la relación de la conducta humana con el cambio climático en la ciudades, sus repercusiones socioambientales y la importancia de la sostenibilidad psicológica como un elemento que beneficie la mitigación de esta emergencia.

**Palabras clave:** ciudad, cambio climático, percepción, diseño urbano, calidad de vida

## Résumé

Les villes sont assiégées par le changement climatique en raison de l'activité humaine, du développement technologique et de l'utilisation excessive des ressources naturelles, qui contribuent aux problèmes socio-environnementaux qui minent la qualité de la vie urbaine et la compréhension de l'urgence climatique contemporaine. Dans ce cadre, l'étude des processus psychologiques ancrés dans le phénomène urbain nous permet de comprendre comment les gens réagissent aux urgences et ce qui peut être fait pour contrer les effets négatifs sur l'environnement immédiat, considérant que le développement et la planification urbaine doivent prendre en compte les aspects psychologiques et sociaux lors de l'analyse du rôle des villes face au changement climatique, et comment un niveau de sensibilisation doit être travaillé pour générer des changements dans la population pour accéder à un bien-être biopsychosocial qui favorise des comportements urbains durables. Cet article vise à exposer la relation du comportement humain avec le changement climatique dans les villes, ses répercussions socio-environnementales et l'importance de la durabilité psychologique en tant qu'élément qui profite à l'atténuation de cette urgence.

## Resumo

As cidades estão sitiadas pelas mudanças climáticas devido à atividade humana, ao desenvolvimento tecnológico e ao uso excessivo de recursos naturais, que contribuem para os problemas socioambientais que comprometem a qualidade de vida urbana e a compreensão da emergência climática contemporânea. Nesse contexto, o estudo dos processos psicológicos ancorados ao fenômeno urbano permite entender como as pessoas respondem às emergências; e o que pode ser feito para neutralizar os efeitos negativos no ambiente imediato, considerando que o desenvolvimento e o planejamento urbano devem levar em consideração os aspectos psicológicos e sociais ao analisar o papel das cidades diante das mudanças climáticas, e como um nível de conscientização deve ser trabalhado para gerar mudanças na população para acessar um bem-estar biopsicossocial que promova comportamentos urbanos sustentáveis. Este artigo tem como objetivo expor a relação do comportamento humano com as mudanças climáticas nas cidades, suas repercussões socioambientais e a importância da sustentabilidade psicológica como elemento que beneficia a mitigação dessa emergência.

**Palavras-chave:** cidades, mudanças climáticas, percepção, desenho urbano, qualidade de vida

**Environmental perceptions of the urban climate emergency.**  
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**Mots clés :** villes, changement climatique, perception, conception urbaine, qualité de vie

## Introduction

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One of the characteristics of this century, attributed to the paradigm shifts in thinking resulting from ideological development and technological innovation, is the multitude of questions and uncertainties arising from the environmental crisis—specifically, climate change (cc), which is neither new nor emergent. Unfortunately for humans and the other species with whom we share this planet, the various environmental emergencies across each and every ecosystem on Earth are palpable and undeniable. These crises force us to reconsider academic, social, and governmental perspectives, encouraging a heightened awareness and prompt action for a better future scenario.

According to UN-Habitat (2024), urban centers, which occupy less than 2% of the Earth's surface, are the largest contributors to climate change due to their consumption of nearly 78% of the world's energy and their generation of over 60% of greenhouse gas emissions. This makes them the primary engine driving the global climate emergency. This backdrop calls for an analysis of the socio-environmental consequences of anthropogenic environments on the cognitive and psychophysiological aspects of urban dwellers, due to their impact on sensory-perceptual processes that interfere with sustainable behaviors. Such behaviors are understood as actions aimed at the care and preservation of the surrounding socio-physical environment for the benefit of both present and future generations.

In this sense, the objective of this reflective piece is to expose how human behavior is related to climate change in cities, its socio-environmental repercussions, and the importance of psychological sustainability as an element that can contribute to mitigating the urban climate emergency. Therefore, the literature review presented seeks to encourage discussion on the psychosocial and environmental dimensions related to the environmental perception of climate change in cities, through transdisciplinary proposals (such as environmental psychology) that help reduce socio-spatial and psycho-environmental vulnerabilities in urban areas, thus promoting the much-needed transition towards a sustainable dimension— a key goal of the 2030 Agenda established by the UN in 2015.

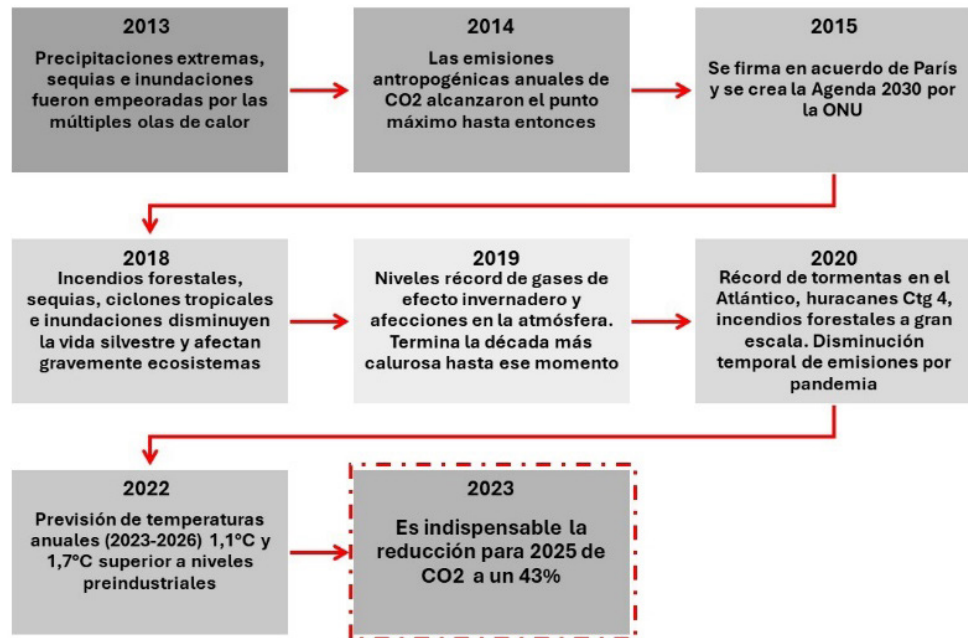
## Current Considerations on Climate Change: Brief Notes

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It is well known that every year a new record is reported in the increase of atmospheric temperature, surpassing the previous year's record. Unfortunately, this situation is no longer surprising and has become part of public daily life, linked to the constant physical changes in the natural environment as a result of the indiscriminate use of natural resources. These anthropogenic changes are the massive iceberg behind climate change (cc), whose starting point, according to Villalpando-Flores (2023), dates back to the Industrial Revolution in the early 18th century. This was when technology began to be used for the creation of modern settlements (cities), migration processes, labor organization, and food production.

*In this sense, the objective of this reflective piece is to expose how human behavior is related to climate change in cities, its socio-environmental repercussions, and the importance of psychological sustainability as an element that can contribute to mitigating the urban climate emergency.*





**Figure 1.** Timeline of Climate Change Impacts over the Last Decade

Source: Author's own elaboration.

From a strictly geophysical conceptualization, climate change refers to modifications over time in the average variability of temperature, wind, and precipitation, which is reflected in the atmosphere, oceans, water, snow, glaciers, land surface, and ecosystem composition (Pörtner et al., 2021). In line with this, Corral-Verdugo et al. (2017) argue that climate change can be understood as a set of physical (but also economic and political) phenomena associated with the modification of the climate on planet Earth. This involves changes in the temperature of the Earth's atmosphere, rising sea levels, melting glaciers, thermal variability, and the duration of seasons. Additionally, included in this list is the phenomenon of the greenhouse effect, driven by human activity, which is well above natural climate variability.

The United Nations Global Compact initiative (2020), which seeks to promote the Sustainable Development Goals (SDGs) within the business sector and is supported by the UN, reports new record levels of CO<sub>2</sub> emissions. According to the initiative, the global health crisis caused by COVID-19 (from May 2020 to May 2023), along with the subsequent halt of industry and complete cessation of social activities (mass lockdown), was not enough to positively influence CO<sub>2</sub> emissions. This means there was neither a reduction nor carbon neutrality. Figure 1 presents a timeline of the last decade's repercussions of climate change.

Forbes Mexico (2023) reported that November 2023 was the hottest month worldwide, with an average surface air temperature of 14.22°C, about 0.85°C above the 1991-2020

average. But beyond this anecdotal fact, 2023 was the hottest year ever recorded in human history, a situation that proves the failure to meet one of the goals of the 2015 Paris Agreement, which aimed to keep global temperature rise below 2°C (above pre-industrial levels). Furthermore, the European Union's climate change policies set in the 2030 agenda have not shown significant progress in reducing net emissions by 55% to achieve net zero emissions by 2050, which led to a clarification during COP28 in Dubai that it is imperative to reduce carbon emissions by 43% by 2025.

The "United for Science" project, by the World Meteorological Organization (WMO) (2023), mentions that global CO<sub>2</sub> emissions increased compared to 2022, reaching 37,500 million tons. In a list of fifteen nations, China was the leading emitter of greenhouse gases in 2022, with 30%, followed by the United States at 13.5%, India at 7.3%, Russia at 5.1%, and Mexico in 11th place at 1.5%. These fifteen nations together are responsible for three-quarters of total global greenhouse gas emissions. Additionally, in terms of oceanic and terrestrial temperature changes, records from 2023 show that both surfaces were 1.18°C warmer than the 20th century average.

It may seem that the complexity of these figures does not allow us to fully grasp what is being discussed. However, when topics such as Arctic melting, rising sea levels, ocean acidification, loss of marine biodiversity, hydrological alterations, urban water stress, water and air pollution, increased natural disasters (earthquakes, cyclones, tsunamis), massive desertification, loss of terres-

trial biodiversity as a direct result of land contamination and overexploitation of land use, population growth, and urban sprawl are put on the table, it becomes possible to conceptualize and understand the global problem affecting the planet and all its inhabitants.

## Perception of Risk and Climate Change from Environmental Psychology

When considering climate change (CC) as a phenomenon shaped by events within and in relation to the natural order of the planet, it is logical to position humans, if not at the center of the debate, then as one of the main variables for analysis. This approach allows for the inclusion of environmental psychology and its transactional and interactionist perspective on our relationship with the natural-built environment of socio-spatial and psychological significance.

As Villalpando-Flores and Bustos-Aguayo (2023a) argue, this specificity in the object of study of environmental psychology enables a view that combines sociological, physiological, and environmental elements with the development, incidence, and impact (both positive and negative) of urban environments, as the morphological and physical characteristics of these environments stimulate emotional, cognitive, and behavioral responses. This implies that the form, structure, and meaning of cities impact perceived quality of life, spatial-environmental knowledge, and risk perception—three essential components for creating meanings, operational appropriations, emotional connotations, and a sense of belonging and urban identity, all of which are compromised by climatic alterations.

It is worth emphasizing that modifications, re-significations, use, and conceptualization of the physical environment evolve in parallel with human beings. Mercado-Doménech (2006) pointed out that natural selection and its genetic variations are the great antecedent of changes in the environment (ecological niches and population isolation), due to adaptive processes, the gathering of information through sensory systems, and the processing of that information. Thus, over time and through evolution, a techno-cultural adaptation is achieved, reflected in the creation of social roles, settlements, survival activities, and socio-community development.

This observation is important due to the close relationship built with the socio-physical environment and its resulting social plan, which, according to Bennett (1980), precedes cultural patterns concerning the use and management of natural resources, as well as knowledge of human operational capabilities over the ecological environment. This is, of course, linked to the multidimensional

conceptualization and perception of the consequences of actions, which are subject to changes in ecological perception and the use of affordances. This facilitates understanding the environment through behaviors aligned with the perceived space, thus obtaining emotional gratification, as the functional characteristics of the place offer opportunities for action based on direct perception. Therefore, human adaptation and adaptability necessarily involve the processes of environmental cognition (knowledge and access to information) and environmental perception (quality, aesthetics, and risk). Sorensen and White (1980) argue that understanding and conceptualizing perceived environmental stimulation, as a result of a climate emergency, allows individuals to respond in two ways: a) the individual can find a cognitive-behavioral adjustment point in response to the emergency through evaluative and appraisal processes (severity), and b) the individual responds to the emergency based on economic adjustments (cost-benefit).

Considering the inherent randomness of environmental systems, the first model emphasizes human activity as an active element in constant adjustment, which facilitates evaluating circumstances and reformulating action mechanisms. The second model discusses a socio-economic configuration in four stages: 1) pre-industrial, 2) transitional, 3) industrial, and 4) post-industrial, through sociocultural patterns that assist in technological support and consumption behavior, which represents the 'white elephant' in the study of CC, due to its limited involvement in the structure, planning, and implementation of environmental public policies.

On the other hand, the socio-ecological and emotional impact of all environmental emergencies implies modifications in psychological constructs such as attachment, rootedness, and belonging, intervening in the relationship between emergency and behavior. Devine (2009) developed a model to assess the social perspective of individual and collective responses, where proposed changes acquire representative meanings related to rootedness and socio-environmental belonging in emergent environmental situations (see Figure 2).

The multi-level nature of this model suggests that behavioral changes may go through various stages of interpretation: awareness of the change, generation of personal and spatial meanings, positive/negative evaluations, coping tools, denial and/or avoidance, and decision-making and action.

In addition, it must be remembered that urban sustainability is correlated with the quality of life and public psychosocial health, based on the deterioration of access to natural resources and dignified spaces, which jeopardiz-

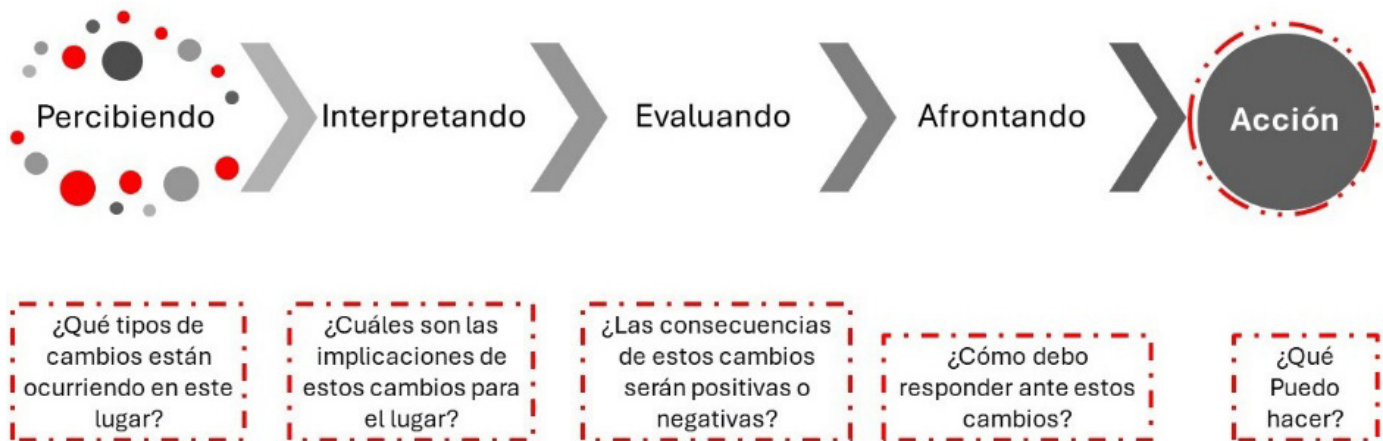


Figure 2. Model of Psychological Response States to Environmental Changes

Source: Own elaboration based on Devine (2009).

es the well-being of future generations. This is the latent context in our days, given the high levels of multifactorial pollution faced by urban environments, which can be observed in energy consumption levels, land sanitation, water stress and contamination, urban vegetation degradation, air pollution, and the proliferation of harmful fauna.

This reality allows us to anchor the study of climate change (CC) with the principles of conservation psychology (a subfield of environmental psychology), which seeks to understand and promote healthy, bidirectional relationships between humans and the conditions of the natural world. Conservation psychology also focuses on human well-being, environmental health, and the quality of ecosystem services, considering the presence of environmental risks and the development of sustainable attitudes and behaviors. These attitudes and behaviors are framed within environmental justice (Mártin & Hernández, 2023), which focuses on historical-economic responsibilities and the sociopolitical conditions underlying CC, highlighting geographical, political, urban, and psychological disadvantages resulting from greater susceptibility to environmental problems. Thus, the characteristics of urban systems (urban planning, public zoning, socio-spatial segregation, urban infrastructure, and urban-architectural-landscape design) are spatial and morphological variables related to sustainable behavior in its four meanings: pro-ecological (care of the physical environment), frugal (care of consumption levels), altruistic (care for others), and equitable (care for social conditions).

According to Villalpando-Flores and Bustos-Aguayo (2023b), this cognitive-behavioral and socio-emotional apparatus allows us to link the prediction of environmental care through elements such as personal economy, perception of consequences, and social involvement.

These elements facilitate the analysis of the permeability, functionality, and life cycle of urban systems, understood as diverse behavioral scenarios in terms of population, objectives, and temporality, considering that there must be a balance between social development, economic growth, and the quality of the surrounding environment. The perception of all environmental disturbances is then subject to subjective experience (quality, intensity, duration, location, clarity), with a hierarchical order in three phases: 1) discrimination of stimulating characteristics such as quantity, size, intensity, and duration, 2) extraction of stimulating information for recognition and identification, and 3) detection of prior information (long-term memory) to again discriminate, identify, and recategorize. This psychophysiological background will ultimately influence key aspects of environmental perception, such as environmental quality, aesthetic value, and potential risk.

## Mitigation Behavioral, Socio-environmental Adaptation, and Urban Development

What was presented in the previous section helps to understand the importance of the psychological analysis of environmental emergencies. However, the study of the perception of climate change (CC), the effects of greenhouse gases, and other alterations exposes elements of poor understanding and disbelief, rooted in misconceptions and misinformation. This cognitive dissonance is due to the belief of minimal (or no) responsibility for the planet's conditions and the lack of clarity about medium- and long-term consequences, which makes it difficult to promote sustainable behaviors that mitigate the intensity





**Figure 3.** Integrative Elements of the Seven Dragons of Climate Inaction

Source: Original elaboration based on Gifford (2011).

and growth of environmental costs. Tenbrink and Willcock (2023) report that there are differences in the perception of CC between urban and rural residents, with the latter considering themselves more distant from this crisis. When describing this inconsistency between what is perceived and what is understood, we are dealing with levels of environmental awareness, the impact of direct or subjective experience, and levels of socio-environmental resilience. These characteristics impact public belief and the spread of misinformation on social media.

Hence, the concept of a “blind spot” in understanding CC is discussed, because information is available but is not fully understood or linked to personal experience, especially when analyzing urban environments. This conceptual problem also finds its rationale in economic development and governmental exercise in different nations, as trust in government, perceived insecurity, international discrepancies, and regional ideologies influence the importance given to CC. Therefore, the issue is not denial of the situation but rather psychological resistance that prevents acceptance and confrontation with this global crisis. Villalpando-Flores and Bustos-Aguayo (2023b) emphasize that these anomalies are a consequence of a cognitive framework and fear of the loss of satisfiers based on four contingencies: a) endowment effect (when a loss is perceived as greater than the gain), b) status quo bias (comparing consumption options perceived as less beneficial), c) limited willpower (cognitive dissonance), and d) myopia in intertemporal choices (inconsistent consumption based on cost/benefit).

Now, considering that sustainable behavior is the accumulation of actions and ideas that seek the careful use of natural and physical resources for the benefit of present

and future generations, it is imperative to emphasize the local and global consequences of CC through vivid and emotional exposure, assertive institutional communication tools, and urban planning processes focused on the inclusion of nature. These elements will help promote cognitive-behavioral modifications in urban residents and benefit the perception of abstract threats through a critical stance regarding the physical degradation of the surrounding environment and its relationship to a large-scale context. All of this will mark differences between the positive and negative elements of pro-environmental behavior associated with variables such as attitudes, values, beliefs, personality, and self-perceived environmental education.

Kruse (1994) identifies six factors that influence the development, modification, and establishment of environmentally relevant actions: 1) evaluation of environmental conditions, 2) knowledge and information processes, 3) attitudes and value orientations, 4) incentives, 5) operational opportunities, and 6) perception of consequences. In turn, Castro (2002) identifies three groups of pro-environmental behaviors in cities: 1) organized collective actions, 2) behaviors related to the conservation of natural resources, and 3) behaviors related to waste recycling. According to Villalpando-Flores (2022a), the sum of these factors indicates that pro-environmental behavior (a central aspect of psychological sustainability) is made up of actions related to individual and collective interests based on urban-environmental values, socio-cultural beliefs, and spatial dynamics; this generates a set of specific socio-spatial behaviors directed toward the physical, environmental, and morphological characteristics of the urban environment, both public and private.



1	<i>Home Energy: Moderate use of thermostats, set schedules for electricity use, measure energy consumption, gradual changes in usage.</i>
2	<i>Transportation: Virtual communication, avoid air travel, walking, cycling, prioritize public transportation, use electric vehicles.</i>
3	<i>Consumption: Sustainable materials, local production, local consumption, reduce, reuse, recycle.</i>
4	<i>Social Influence: Share information, community development, volunteering, professional training.</i>
5	<i>Citizenship: Voting, academic and institutional research, active and passive activism.</i>
6	<i>Diet : Moderate to minimal consumption of animal products, increase organic products, consume seasonal products, moderate use of drinking water.</i>

**Table 1.** Six Domains of Choice for Climate Action

Source: Own elaboration based on Hampton and Whitmarsh (2023).

This dissection of the nature of pro-environmental behavior, and its importance for socio-environmental mitigation, supports what Clayton (2019) argued about the importance of understanding the CC phenomenon as a dynamic state, whose belief, existence, causes, consequences, and implications will not always show variability in the population's response, nor will there be swift changes in the socio-physical context. Thus, academic, social, institutional, and governmental continuity is needed, alongside various intervention processes based on cognitive-behavioral modification grounded in empirical evidence, for identification, explanation, and prediction. This scenario supports Gifford's (2011) proposal about what he calls the 'dragons of climate inaction,' establishing seven categories that mark a gap between behavior and attitude toward CC (see Figure 3).

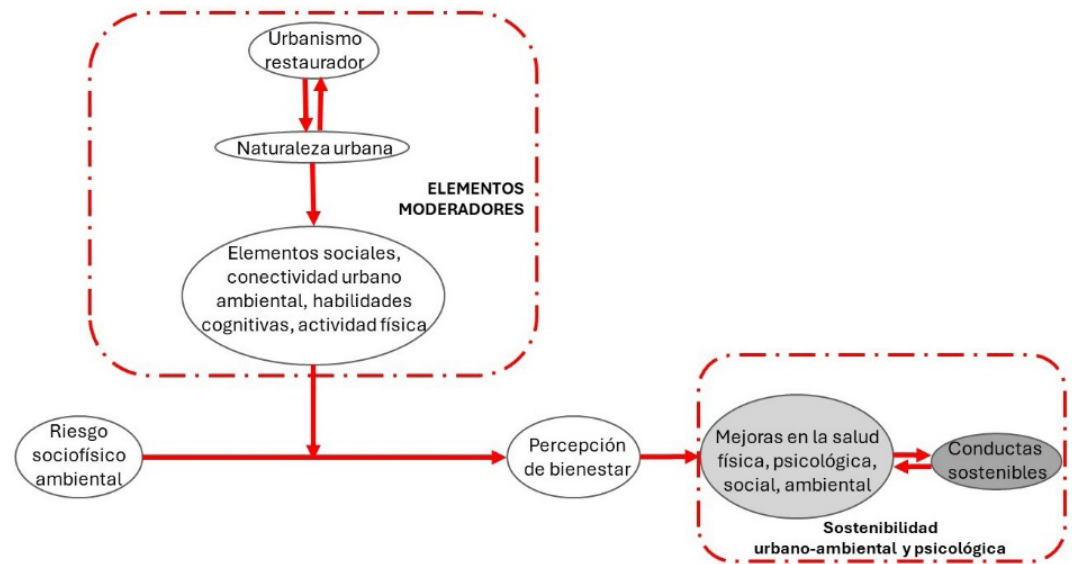
This theory posits that there are intrinsic and extrinsic factors, shaped by socio-cultural and environmental conditions, that explain why "everything" that could be done to counteract the climate emergency is not being done. Each of these "dragons" prevents individuals and communities from taking actions to counter and mitigate climate change (CC). It's important to note that these barriers have been assessed in the context of social dilemmas, consumption intentions, and electricity conservation. In **Table 1**, six areas of climate action that can be applied within urban dynamics are presented.

On the other hand, Villalpando-Flores (2022b) points out that there are few studies in which urban environmental characteristics (zoning, location, design, infrastructure, syntax, furniture, etc.) serve as the guiding axis for sustainable behavioral evaluation. This is considering that urban planning and nature, as well as the diversity of environmental systems, are representative in the analysis of the socio-spatial and psychological conditions of cities. Thus, nature-based solutions, within urban-architectural-landscape design processes, are increasingly present in the practice of conceiving and analyzing cities, especially when looking for methods of urban-environmental and psychosocial mitigation and adaptation in the face of climate change.

Considering the restorative benefits (perceived psychophysiological well-being) of contact with urban nature and its impact on emotional evaluations and psychosocial processes, urban design and planning processes supported by 'restorative urbanism' (understood as the practice of urban planning with a primary focus on mental health, well-being, and quality of life resulting from contact with natural elements) point toward the organic inclusion of nature, thanks to the presence of dynamic, interconnected, and multifunctional urban systems. According to Roe and McCay (2021), the multicultural experience, social interaction, and the perception of public mental health resulting from this conception of cities will facilitate adaptive processes, socio-environmental mitigation, and the resolution of socio-spatial conflicts. Therefore, it can be considered that urban-landscape design based on natural solutions is a tool that moderates the perception of environmental contingencies, benefiting multifactorial aspects of urban public health and psychological sustainability (see Figure 4).

The proposed model establishes that urban-landscape design in correlation with urban nature and the elements of urban environments can moderate perceived socio-physical environmental risk, cushion the impact on the perception of individual and collective well-being, and multidimensionally impact urban health and the presence of sustainable behaviors, which will serve as the foundation for urban, environmental, and psychological sustainability. Much of this is due to the psychophysiological benefits of being in contact with natural elements within an environment that typically lacks them. Additionally, human preference for the natural world stems from a prehistoric remnant in the evolutionary process, which is why preference for spaces with these characteristics is always well-valued and well-received, especially in a reality where climate change visibly impacts the quality of urban nature.

It is important to mention that the inclusion of nature in urban structures arises from landscaping principles, as well as more recent proposals such as biophilic de-



**Figure 4.** Restorative Urbanism Model to Address Climate Emergencies

Source: Own elaboration.

sign and universal design (Villalpando-Flores & Bustos-Aguayo, 2023a). However, what distinguishes restorative urbanism is the role of biopsychosocial health and its close relationship with both urban nature and the design guidelines. In this way, both the psychological and urban-environmental dimensions of sustainability come together to provide a spatial logic that benefits the life cycle of a space, thereby improving the permeability in the development of socio-community plans.

The configuration of this proposal is related to the SDGs of the 2030 Agenda, specifically Goal 11: “Sustainable Cities and Communities,” Goal 12: “Responsible Consumption and Production,” and Goal 13: “Climate Action.” Additionally, the model aligns with strategies proposed for adaptation and climate mitigation in cities by the Housing and Urban Development Division of the Inter-American Development Bank (IDB) (Talbot & Vogt, 2023), in their sections: 1) “Green Infrastructure,” 4) “Resilient Buildings,” and 5) “Inclusive Urban Planning.”

## Conclusions

One of the key aspects throughout the discussion is the role of humans as the main driver of the global climate emergency. Denying the correlation between climate change (CC) and human activity is to blind oneself to a concerning scenario that affects multidimensionally social development, perceived quality of life, biopsychosocial well-being, environmental perceptions, and urban-environmental and psychological sustainability.

Since cities are highly vulnerable to these contingencies, it is crucial to foresee potential environmental risks that

will negatively affect living conditions and social plans. Hence, the importance of transdisciplinary approaches in the search for social and technological proposals for mitigating climate events. Without platforms to counteract these environmental anomalies, the mortality rate increases due to comorbidities and psychological conditions, which are inevitably linked to displacement and migration effects, the rise in poverty rates, and the loss of economic assets. In other words, a series of anomalies emerge that range from the private to the public and substantiate the fact that economic activities are highly intertwined with the psychosocial and urban-environmental conditions of the city.

Thus, the promotion and fostering of sustainable urban development (economic, technological, social, environmental, and psychological) demands an understanding that the success of environmental mitigation requires solid psychological foundations, strong social structures, and urban systems capable of adapting to both environmental and human needs. This makes it highly relevant that green urban infrastructure, the dignification of public spaces, environmental health of urban flora and fauna, passive cooling systems, reflective surfaces, new-generation bioclimatic buildings, careful management of resources (water, electricity, and wind energy), and planning for mobility and urban communication systems form the basis of circular socioeconomic processes that benefit urban metabolism. This, in turn, will allow for the aspiration of a favorable quality of life in both public and private spheres.

Indeed, to achieve the success of these correlations, it is important to consider the presence of psychosocial elements such as environmental education, civic awareness, socio-environmental desirability, urban attachment

and identity, and environmental preferences. The accumulation of these psychological conditions, resulting from interaction with a resilient city, can counteract elements such as eco-anxiety, urban-environmental stress, socio-spatial and environmental conflicts, and other urban pathologies that affect the feelings and thoughts of citizens. Thus, integrating these characteristics through perceived well-being, socio-environmental adaptation, and psychosocial adaptability will result in a better and healthier relationship with the surrounding urban environment of socio-spatial and psychological significance, achieving more accurate understanding of what it means to live in a city besieged by climate change.

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