

# The political agenda and governance in the face of 21st-century dilemmas

**A agenda política e a gestão diante dos dilemas do século XXI**

**La agenda política y la gestión frente a los dilemas del siglo XXI**

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Article received on  
**November 12, 2025**

Final version accepted on  
**April 16, 2026**

Published on  
**August 28, 2026**

**Abstract:** The global crisis is creating uncertainty and reigniting structural debates: Should we continue to focus on cities or seek a more balanced territorial development? Does reducing the poverty gap require welfare measures or comprehensive actions related to the built environment? How should we address the new challenges posed by climate change—through protective measures or planned actions stemming from territorial governance? These questions highlight the persistent tensions in current development models. In this context, the 2030 Sustainable Development Goals (SDGs) have been incorporated into the global political agenda as a guiding framework. However, their implementation has not achieved the expected results. The aim is to demonstrate that their achievement depends on sectoral and piecemeal policies, without considering that land-use planning proposals offer comprehensive strategies, actions, and instruments that address the SDGs. This research uses a case study approach, grounded in the paradigm of complexity and complex systems theory, to determine how land-use plans in Mendoza, Argentina, and Cuenca, Ecuador, analyze issues related to climate change, habitat, and poverty, and what policies and instruments they propose. The results show that the plans adopt comprehensive approaches in line with the SDGs and use tools that enable the territorial implementation of established policies and goals. However, government monitoring reports rely on sectoral statistics and indicators without taking into account the land-use plans endorsed by society, which highlights the weakness of the institutional framework. Consequently, the incorporation of the SDGs is formal rather than systemic, which limits their potential to assess territorial impacts and bring about structural changes in the development model. It is hoped that this will help bridge the gap between the 2030 Agenda, the territory, and land-use planning.

**Keywords:** territorial planning plans; sustainable development goals; public management; comprehensive policies and indicators.

**Resumo:** A crise mundial gera incerteza e reabre debates estruturais: devemos continuar apostando nas cidades ou buscar um desenvolvimento territorial mais equilibrado? A redução da desigualdade de renda requer medidas assistencialistas ou ações integrais relacionadas ao habitat? Como enfrentar os novos cenários que a mudança climática apresenta? Com medidas de proteção ou medidas planejadas que surjam de uma governança territorial? Essas questões evidenciam as tensões persistentes nos modelos de desenvolvimento atuais. Nesse contexto, os Objetivos de Desenvolvimento Sustentável (ODS) 2030 são incorporados à agenda política global como um marco orientador. No entanto, sua implementação não alcançou os resultados esperados. O objetivo é comprovar que seu cumprimento depende de políticas setoriais e parciais, sem levar em conta que os planos de Ordenamento Territorial propõem estratégias, ações e instrumentos integrais que respondem aos ODS. A pesquisa utiliza o estudo de caso, sob o paradigma da complexidade e da teoria dos sistemas complexos, para determinar como os planos de ordenamento territorial de Mendoza, na Argentina, e de Cuenca, no Equador, analisam questões relacionadas às mudanças climáticas, ao habitat e à pobreza, e quais políticas e instrumentos propõem. Os resultados demonstram que os planos adotam

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abordagens integrais em consonância com os ODS e utilizam instrumentos que permitem a territorialização das políticas e metas estabelecidas. No entanto, os relatórios governamentais de acompanhamento utilizam estatísticas e indicadores setoriais sem levar em conta os planos de Ordenamento Territorial endossados pela sociedade, o que demonstra a fragilidade de sua institucionalidade. Consequentemente, a incorporação dos ODS é formal e não sistêmica, o que limita seu potencial para avaliar impactos territoriais e gerar mudanças estruturais no modelo de desenvolvimento. Espera-se contribuir para a conexão entre a Agenda 2030, o território e o ordenamento territorial.

**Palavras-chave:** planos de ordenamento territorial; objetivos de desenvolvimento sustentável; gestão pública; políticas e indicadores integrados.

**Resumen:** La crisis mundial genera incertidumbre y reabre debates estructurales: ¿debemos continuar apostando a las ciudades o buscar un desarrollo territorial más equilibrado?, ¿la reducción de la brecha de pobreza requiere medidas asistencialistas o acciones integrales vinculadas al hábitat?, ¿cómo se afrontan los nuevos escenarios que plantea el cambio climático? ¿con medidas de protección o medidas planificadas que surjan de una gobernanza territorial? Estos interrogantes evidencian las tensiones persistentes en los modelos de desarrollo actuales. En este contexto, los Objetivos de Desarrollo Sostenible (ODS) 2030, se incorporan a la agenda política global como marco orientador. Sin embargo, su implementación no ha logrado los resultados esperados. Se pretende comprobar es que su cumplimiento depende de políticas sectoriales y parciales, sin considerar que los planes de Ordenamiento Territorial proponen estrategias, acciones e instrumentos integrales que responden a los ODS. La investigación utiliza el estudio de caso, bajo el paradigma de la complejidad y la teoría de los sistemas complejos, para determinar cómo los planes de Ordenamiento Territorial de Mendoza, Argentina, y Cuenca, Ecuador, analizan problemáticas relacionadas con el cambio climático, el hábitat y la pobreza y qué políticas e instrumentos proponen. Los resultados demuestran que los planes aplican enfoques integrales en concordancia con los ODS y utilizan instrumentos que permiten territorializar las políticas y metas establecidas. Sin embargo, los informes gubernamentales de seguimiento utilizan estadísticas e indicadores sectoriales sin considerar los planes de Ordenamiento Territorial avalados por la sociedad, lo que demuestra su débil institucionalidad. En consecuencia, la incorporación de los ODS es formal y no sistémica, lo que limita su potencial para evaluar impactos territoriales y generar cambios estructurales en el modelo de desarrollo. Se espera contribuir a la conexión entre la Agenda 2030, el territorio y el ordenamiento territorial.

**Palabras clave:** planes de ordenamiento territorial; objetivos de desarrollo sostenible; gestión pública; políticas e indicadores integrales.

## 1. Introduction

Since the Universal Declaration of Human Rights, a global commitment has been established, expressed in the willingness of United Nations member states to guarantee, as inalienable rights, the rights and freedoms of every human being on an equal footing (Organización de las Naciones Unidas [ONU], 2015a). Within this framework, various international agreements have laid the groundwork for linking rights, development, and territory, such as the 2030 Agenda, which established the Sustainable Development Goals (SDGs) in 2015.

Their purpose is to reduce uncertainty in the face of the challenges posed by the global economic, social, and environmental crisis (ONU, 2018). The unlimited accumulation of capital driven by extractivism and rising consumerism has led to excessive urban concentration, increased inequality, and poverty manifested in inadequate living conditions; meanwhile, the disruption of the ecological balance caused by climate change is evident in

the increased intensity and frequency of natural hazards in various parts of the world (Gudynas & Acosta, 2011; Svampa, 2022).

While sustainability and the need to achieve the SDGs are widely discussed, it is worth asking: how much progress has been made in implementing actions and policies to achieve them? The truth is that the results so far have not met expectations, despite the issue being on the political agenda of many countries and efforts to incorporate these goals into standard practices (Naciones Unidas, 2020).

This research requires the development of a theoretical and methodological framework based on the complexity paradigm and complex systems theory to address issues arising from the interrelationships among the physical-natural or ecological, socioeconomic, and political-institutional subsystems that make up a territory, issues that the SDGs aim to resolve. The case study method is used (Yin, 2004), as it allows for an in-depth examination of the complex and systemic nature of Land Use Plans, followed by an exploration of their relationships with the SDGs.

The focus is on the Land Use Plan (Plan de Ordenamiento Territorial, POT) of Mendoza, Argentina—approved in 2017 for the 2015–2019 period—and the Development and Land Use Plan (Plan de Desarrollo y Ordenamiento Territorial, PDOT) of Cuenca, Ecuador—approved in 2010 and updated in 2022. The study examines the content of the plans, the manner in which policies and instruments are formulated to address habitat-related issues, poverty, and climate change, the links to the SDGs, and the extent to which these plans influence their achievement.

Subsequently, changes in the structure and functioning of land-use management are analyzed to determine the responsibilities and functions of the agencies and departments involved in land-use management.

Finally, a set of conceptual categories is selected to compare the two plans, identify similarities and differences, and propose a strategy that will enable the SDG targets to be implemented at the local level through the formulation and implementation of comprehensive policies that address the actual needs of the region. The ultimate goal is to contribute to the achievement of the 2030 SDGs in order to attain more balanced, equitable, and sustainable development, by proposing interventions that bring about structural changes in the development model.

## **2. Theoretical and methodological framework**

The research is approached from the complexity paradigm, which introduces a post-classical rationality by incorporating issues related to chaos, nonlinearity, imbalance, uncertainty, temporality, and self-organization (García, 2006), a new epistemological horizon that allows for the organization of thought, a new way of being, thinking, acting, and living together, with the aim of transforming society (Gómez et al., 2016).

It refers to something difficult to comprehend due to the quantity and diversity of interrelated elements. It calls for linking and articulating the evident dispersion of knowledge, with the aim of increasing and improving our understanding of the natural and social worlds (Aronson, 2013). It recognizes that problems are composed of a number of interrelated variables that form a whole, though not necessarily in a linear manner (Narváez & Gallo, 2015).

The theory of complex adaptive systems aligns with this paradigm because it allows us to understand the behavior of social and ecological systems, which are interdependent, self-regulating, and change in unpredictable ways (Lara-Rosano et al., 2021). These are subsystems that interact with one another and form different structures whose interrelationships are fluid and adaptable when disruptions and crises occur (Morin, 1990). In other words, a system is complex in the sense that it is diverse and composed of multiple interrelated elements, and it is adaptive because it has the capacity to change.

The work of Edgar Morin on complex thought and that of Rolando García, a prominent researcher and theorist who has made significant contributions to interdisciplinary research on complex systems (Luengo González, 2018; Rodríguez

Zoya, 2012), are the leading exponents of this theory, while the earliest research on complex adaptive systems was conducted by the Massachusetts Institute of Technology and the Santa Fe Institute in the United States, with Jay Wright Forrester (1950–1960) serving as the leading authority on the study of socioeconomic and organizational systems (Luengo González, 2018).

The theory comprises a concise theoretical framework with an epistemological foundation rooted in constructivism (Piaget and the Geneva School) and a set of general principles regarding the composition, dynamics, and evolution of a system, methodological guidelines that enable the identification of the impacts that economic, social, and environmental crises have on the territory, in pursuit of development (García, 2006).

In light of this reality, the 2030 Agenda, adopted by the United Nations in 2015, sets forth the SDGs, which are complex in nature and grounded in the paradigms of sustainable development, human development, and territorial development. The former encompasses economic, social, and environmental dimensions, while the latter places people at the center of development, with the following guiding principles: “freedom to live without fear, freedom to live without poverty or deprivation, and freedom to live with dignity” (United Nations Development Programme [UNDP] & Inter-American Institute of Human Rights, 2011, p. 8), because while well-being and equity are principles of a life free from need and deprivation, the hallmark of a life free from fear lies in creating the conditions to live in a healthy and safe environment.

Consequently, territorial development becomes the most profound and comprehensive expression of the development that a community or a society of communities and individuals undergoes to define, generate, and manage resources, in order to identify and meet the legitimate needs of all its members, achieve greater social and economic cohesion, and eliminate inequalities through an ongoing, cooperative process aimed at strengthening participatory democracy, a process known as territorial governance (Gudiño, 2015).

Actions aimed at sustainable development and human development are realized within a territory through the implementation of policies, plans, programs, and projects that seek greater balance, equity, and sustainability, the basic principles of territorial planning (Farinós Dasí, 2008).

The conceptualization of territory has evolved through different approaches: the legal-political tradition understands it as political control by the State; the naturalist tradition, associated with ethology; the Marxist tradition regards it as a material reproduction of a group and its appropriation; and the humanist tradition understands it as a lived space (Benedetti, 2011). More contemporary authors such as Claude Raffestin, drawing on Michel Foucault's relational theory of power, view it as a production of space in which various social relations and constellations of multiple powers exist, influencing regional and local scales (Raffestin, 1993). For their part, Robert Sack (1986) and Altschuler (2013) view it as a place where territoriality is exercised, a strategy employed by an individual or group seeking to control all actors and relationships within a geographic area. Milton Santos understands it as a multiscale space in which diverse actors with public, private, and community interests interact; through various processes of interaction, they give rise to a territorial organization with its power relations (Santos, 1990, 2004).

The different definitions of "territory" demonstrate that it is a complex concept, as is Territorial Planning itself, which, following the conceptual and methodological renewal that took place in the 1980s with the European Regional/Spatial Planning Charter, has evolved from a form of prescriptive planning into a form of strategic planning, network-based management, and public policy that cuts across economic, social, and environmental policies (Farinós Dasí, 2008; Gómez Orea, 2003). Authors such as Massiris (2015), Méndez (1990), Santos (1990, 2004), and Zoido Naranjo (1998) offer different methodological perspectives, models, and conceptual foundations that enable intervention in the territory and can contribute to the achievement of the SDGs.

The 2030 Agenda is committed to ending complex problems such as poverty, inequality, and environmental degradation, which vary according to physical and natural characteristics and the social, economic, and political structure resulting from the relationships that emerge in each location. However, progress toward achieving the SDGs is stalling, and

one reason is that States are failing to incorporate the territorial dimension of the goals (ONU, 2018). The proposed goals require changes in the dynamics of governance (greater coordination) and the design of more comprehensive public policies, which entails shifting from a positivist conception of public policy (Weberian bureaucratic theory that explains the formation of a hierarchical and centralized State based on Kelsen's pyramid) to a multilevel governance of territorial policy, known as relational, network-based, coordinating, and participatory governance (Comisión Europea, 2017).

### **3. Agreements on the 2030 Agenda with member States**

The 2030 Agenda for Sustainable Development was adopted by the United Nations General Assembly in 2015 in response to the need to transform the current development paradigm. Its adoption resulted from an open, democratic, and participatory negotiation process involving 193 United Nations member states and a large number of stakeholders from civil society, academia, and the private sector (Naciones Unidas (UN), 2015b).

This document aims to integrate economic, social, and environmental dimensions through 17 Sustainable Development Goals (SDGs) and 169 targets, with a long-term vision. These dimensions are manifested within a geographical territory, a space defined by a sense of community belonging and bounded by institutional and regulatory frameworks in pursuit of sustainable, human-centered, and territorial development. It establishes a common framework for action that must be coordinated among governments, businesses, civil society, and citizens, with governments being "primarily responsible for monitoring progress toward the Goals and targets" (Naciones Unidas, 2015b, p. 47). The actions undertaken to achieve them must take into account their complex nature, the need to identify the problems they seek to solve (which are also complex), and the use of tools applied in land-use planning to intervene in the territory.

This study focuses particularly on complex issues in Latin America and the Caribbean related to the effects of climate change, habitat, and poverty. Regarding the effects of climate change, the United Nations Development Program [UNDP] (2015) states that this region is the second most prone in the world to floods, landslides, earthquakes, and droughts, and that it has the lowest supply of drinking water in rural areas, a situation that disproportionately affects the most vulnerable populations. In this regard, in the conclusions of the CIOT (Congreso Internacional de Ordenación del Territorio) meeting, authors such as Farinós Dasí et al. (2022, p. 30) state, with respect to climate change, that

effective land-use planning anticipates and prevents the problems and consequences of locating the most vulnerable land uses in high-risk areas, which is key to reducing

damage. The use of hazard and vulnerability maps is essential for successful decision-making. (Farinós Dasí et al. 2022, p. 30)

With regard to housing and poverty, both the 2012 Rio Declaration and the 2030 Agenda recognize that: “The eradication of poverty is the greatest challenge facing the world today and an indispensable condition for sustainable development” (Naciones Unidas, 2015b, p. 1). It should be added that, in the case of Latin America, this is the most pressing issue (Parlamento Latinoamericano, 2012). One dimension of poverty is the lack of decent housing, which includes not only tenure and service infrastructure but also adequate environmental conditions, as expressed at the “Habitat I” and “Habitat II” world summits (Naciones Unidas, 1996).

Authors such as Gudiño et al. (2017) argue that the multidimensional nature of the issues involved in ensuring adequate habitat involves a wide range of actors and interests vying for control of space; therefore, Land-Use planning must address the needs of all actors involved in shaping the territory, balancing their interests and ensuring their participation in building their own habitat. If this is not taken into account, territorial imbalance results, which, when manifested in the territory, leads to territorial fragmentation, inadequate habitat, and unsustainable natural resource management.

Given the complexity of these issues, the 2030 Agenda proposes several SDGs; among those involving habitat include: No Poverty (SDG 1), Zero Hunger (SDG 2), Good Health and Well-being (SDG 3), Quality Education (SDG 4), Clean Water and Sanitation (SDG 6), and Sustainable Cities and Communities (SDG 11). Those related to poverty reduction involve addressing the socioeconomic conditions of the population by improving access to food (SDG 2), housing (SDG 11), education (SDG 4), healthcare (SDG 3), and drinking water (SDG 6). With regard to SDG 13, Climate Action, the need for territorial resilience in the face of climate change is emphasized, a phenomenon that requires an understanding of how social and ecological systems behave in order to take action and prevent human and economic losses. This last goal is related to the SDGs concerning human settlements and especially to SDG 11, Sustainable Cities and Communities.

Each of the issues mentioned falls under the jurisdiction of different government institutions and agencies, which is why the SDGs cannot be addressed in a sectoral or fragmented manner; rather, the actions and policies to be implemented must be grounded in an understanding of the interrelationships among the physical-natural or ecological, socio-economic, and political-institutional subsystems that make up a territory as a complex system.

## 4. Methodology

Addressing imbalances, poverty, housing as a dimension of poverty, and the effects linked to climate change cannot be studied in a fragmented manner because of their complex nature. These issues result from the interrelationships among the physical-natural or ecological, socioeconomic, and political-institutional subsystems that make up a territory as a complex system. From this perspective, the factors contributing to poverty in marginal urban areas are not the same as those in rural areas, nor are the natural hazards in a tropical region the same as those in a desert region; consequently, the vulnerabilities and resulting risks are also different. However, policies intended to address these problems are implemented from a sectoral perspective and by a single ministry, secretariat, or directorate, even though they should fall under the jurisdiction of various government institutions and agencies.

In this context, the aim is to demonstrate that the indicators used to measure progress toward the SDGs are based on the outcomes of sectoral and partial policies, whereas Land-Use planning proposals offer more comprehensive strategies, actions, and instruments that are not taken into account.

Given the complexity of the research, a qualitative methodological approach is adopted, aimed at a deep understanding of case studies and the interpretation of their structural and functional relationships (Hernández Sampieri et al., 2014).

Two paradigmatic cases were selected: the Land-Use plans of Mendoza, Argentina, and Cuenca, Ecuador. These are instruments for territorial intervention that apply the theory of complex adaptive systems to interpret why and how these issues, which are relevant to the SDGs, arise, and that propose coordinated courses of action through the application of more comprehensive policies and intervention tools.

The Land-Use Plan for Mendoza, Argentina, was developed based on a technology transfer project from the National University of Cuyo and CONICET-Mendoza to the Government of the Province of Mendoza, in accordance with the provisions of Article 20 of Law No. 8051 and with funding from the National Agency for Scientific and Technical Promotion (Project PID 08/09-ANPCyT) (Gudiño, 2017).

In the case of the Land Use Planning and Development Plan for Cuenca, the analysis is based on the results obtained from the research conducted in the doctoral dissertation titled “The Territory and Its Planning as a Space for Guaranteeing Human Rights: The Case of Cuenca between 2010 and 2019”<sup>1</sup>.

1 Bersosa, Juanita: “The Territory and Its Land-Use Planning as a Space for Guaranteeing Human Rights: The Case of Cuenca from 2010 to 2019,” National University of Cuyo. (Doctoral dissertation currently under review; defense scheduled for 2026).

Although the Land Use Plan for Mendoza, Argentina, operates at the provincial level and that for Cuenca, Ecuador, at the cantonal or urban level, and the jurisdictional levels of State models and regulations pertaining to Land Use Planning differ, the rationale for selecting these cases stems from an interest in determining whether decision-making regarding the territory and the measurement and monitoring of the SDGs varies or not. To this end, the study analyzes and compares the same conceptual categories related to the methodological structure of the plans, the mechanisms and instruments of intervention according to the powers delegated to the institutions involved in territorial management, and the links between the plans and the SDGs.

The ultimate goal is to generate knowledge that contributes to fostering an appropriate connection between the 2030 Agenda, the territory, and Land-Use Planning.

#### **4.1. Data collection techniques**

Various qualitative techniques are used for data collection, including:

1. Specialized literature review. This focused-on consulting academic and scientific literature on the concepts of complexity, sustainable development, territorial systems, governance, and planning. To this end, searches were conducted in recognized academic databases, such as Scopus, RedALyC, Scielo, and Google Scholar, thereby ensuring the relevance, currency, and scientific rigor of the literature consulted. This review served to consolidate the theoretical framework and contextualize the case studies within the current debate on sustainability and territorial management.
2. Document analysis. A comprehensive review is conducted of Mendoza's Land Use Plans (POT) and Cuenca's Development and Land Use Plan (PDOT), along with the regulatory frameworks that underpin them. In addition, official national and international documents related to the 2030 Agenda and the SDGs, laws, decrees, sectoral plans, technical reports, institutional evaluations, and sustainable development strategies are reviewed. This technique provides insight into the structure, objectives, policies, management tools, and implementation and execution mechanisms of the POTs and PDOTs.

#### **4.2. Techniques for Information Analysis**

The comparative analysis between Mendoza's POT and Cuenca's PDOT was conducted using the following conceptual categories: State, regulations, plans, management, instruments, policies, and SDGs. The indicators selected for the analysis are: model of the State, regulations related to land use planning, land use plans, public management (entities responsible for

implementation and decision-making), public policies, and relationships with the SDGs.

These qualitative indicators are analyzed using content analysis, which allows for the identification of conceptual relationships, and the descriptive method to characterize the context in which the plans are developed and to detail the policies, instruments, and management structures associated with the SDGs; the analytical method to identify the methodology used in the plans and the coordination mechanisms of the territorial subsystems that explain the selected issues. The comparative method is also used to establish differences and similarities regarding the entities responsible for implementing the plans, political decision-making, land management practices, and links to the SDGs.

## **5. Sustainable Development Goals (SDGs) and the Land-Use Plan on the Political Agenda**

The Land-Use Plan, by defining interventions in the territory and the SDGs, which are goals or objectives to be achieved to improve the population's living conditions, is part of the political agenda, since it is the political agenda that ultimately determines the policies implemented by the administration in a territory. However, Gudiño (2009, p. 23) states that:

The existence of a top-down and inflexible management structure, combined with the design of public policies that fail to take into account the complexity of the issues or the medium- to long-term horizon required by planning, has led to ineffective actions. (Gudiño, 2009, p. 23)

Policies remain sectoral and top-down, even though most governments have Land-Use Plans that propose more comprehensive strategies, actions, and instruments aligned with the SDGs.

### **5.1. Land-Use Plan for Mendoza, Argentina**

We have selected the Land Use Plan for Mendoza, Argentina, approved by Law No. 8999 in 2017. This instrument is provided for under Law No. 8051, known as the Land Use and Land-Use Planning Act, the first of its kind in the country at the provincial level, and is the result of a process led by the National University of Cuyo with broad public participation (Ley No. 8999, 2017).

It is important to note that Mendoza is a province in western Argentina with a population of over 2,000,000, most of whom are concentrated in man-made oases created to harness the water flowing down from the Andes mountain range that separates it from Chile. The fragility of its ecosystem drives society to care for the environment and its territory, but its geographic location allows it to serve as Mercosur's gateway to Pacific markets, transforming the northern oasis, where the most populous and

economically active metropolitan area is located, into a logistics and commercial hub that exacerbates imbalances with the rest of the territory.

#### 5.1.1. The plan as an instrument of territorial policy

The Territorial Planning Plan of Mendoza is based on three basic principles: balance, equity, and sustainability. The methodology adopted for its development is systemic because it allows for the analysis and interpretation of the structure and dynamics of the territorial system; it is also strategic-situational because it responds to structural demands and enables work at the operational level through directional programs and projects; and it is participatory, as it involves various stakeholders whose roles and mechanisms for participation are clearly outlined in Law No. 8051 and in the Plan's Regulations. (Ley No. 8051, 2009).

The plan pays special attention to the interactions between the physical-natural system and the social system, in which social factors (population, culture, history) interact with economic factors (production, activities, labor) and political-institutional factors (public agencies, civil society institutions, businesses), all of which define distinct forms of organization within the territory that self-regulate, adapt, and change in unpredictable ways.

The interrelationships among components of the territorial system make it possible, for example, to determine whether habitat conditions are adequate or not based on an analysis of access to housing, basic network infrastructure (electricity, water, sanitation, public transportation), social facilities (schools, hospitals), and the existence of a healthy and safe environment (free from pollution and natural hazards such as floods, droughts, earthquakes, etc.).

The assessment identifies territorial integration units, which reflect the homogeneous characteristics and specific features of a territory, as well as its problems, limitations, threats, and potential, inputs that contribute to the construction of the current, desired, and possible models of territorial organization through prospective techniques.

The development of these models is submitted for public review and enables the formulation of the Plan's objectives, as well as the definition of guidelines, policies, programs, and projects to be implemented in the short, medium, and long term. The plan identifies seven structural problems requiring long-term policies and strategies and formulates seven objectives to address them; to this end, seven programs are proposed as instruments of intervention. Those related to the SDGs concerning habitat, poverty, and climate change are as follows:

The Integrated Habitat Management program and the Organized Participation in Habitat Development subprogram contribute to the achievement of SDG No. 11 (Sustainable Cities and Communities), SDG

No. 3 (Good Health and Well-being), SDG No. 4 (Quality Education), and SDG No. 6 (Clean Water and Sanitation).

The Priority Areas for Socio-Territorial Intervention Program is linked to SDG No. 1 (No Poverty), SDG No. 2 (Zero Hunger), and SDG No. 10 (Reduced Inequalities).

The Program for Mitigating Risks from Natural and Anthropogenic Threats and its subprograms, Foundations for Defining the Province's Risk Management Plan, Biodiversity Conservation, and Management and Monitoring of Non-Irrigated Drylands are related to the fulfillment of SDG No. 13 (Climate Action) and SDG No. 15 (Life on Land).

In addition to the programs, the Plan identifies the responsible institutions, the procedures to be followed over time, and the likely sources of funding for their implementation. It also establishes mechanisms for implementation, identifying Land-Use Planning instruments such as land classification, municipal zoning, and guidelines for the location and development of real estate complexes and state-funded housing projects.

One instrument included in the Plan that warrants special consideration is the Annual Results-Based Action Plan for Land Use Planning, as it requires coordination among government agencies, which must design their policies and actions annually to ensure compliance with the Plan, in accordance with their delegated authorities.

#### 5.1.2. Plan implementation

According to official records from the Land Use Planning Agency, as of 2023, only five of the 18 municipalities had their Land Use Plans approved by their City Councils and had updated their land-use codes in accordance with the new plan, while only two had made no progress; the rest were in the process of obtaining approval through public hearings and updating their land-use codes in accordance with the new plan (Albornoz, 2024).

Although the most remote municipalities had not approved their plans until 2024, the approval of those in the metropolitan area does not guarantee the implementation of measures aimed at achieving territorial balance and equity between the metropolis and the departmental capitals, and between the latter and those located in oasis and semi-arid areas known as the "secano."

Having a plan endorsed by the scientific and academic community and society at large enabled the provincial government to access international funding sources, particularly those aimed at improving the living environment in the metropolitan area.

This marked the start of a series of projects to improve road infrastructure in the cities, including bike lanes, parks, and an urban train system. These specific initiatives are coordinated among the municipalities that make up the metropolitan area but do not take into account comprehensive planning

with the areas surrounding the city, the need to densify the urban fabric of the continuous urban area, or the progress of municipal plans in the rest of the province.

Although some regulations have been introduced to prevent urban sprawl into productive areas and environmentally fragile zones, municipalities are promoting real estate development on the outskirts, which causes negative externalities by increasing risks from climate events, raising demand for essential basic services, especially drinking water, and causing the road network to collapse in some areas. These problems impact living conditions and demonstrate a lack of administrative and institutional coordination. Therefore, it is worth asking, why are the actions outlined in the PDOT not being followed? Are situations such as those mentioned taken into account when measuring SDG indicators?

#### 5.1.3. Links to the Sustainable Development Goals

Mendoza has signed a collaboration agreement with the National Council for Public Policy Coordination to work on the design and implementation of the 2030 Agenda. It has designated the Secretariat of Environment and Land Use Planning as the focal point for advancing this work, delegating to the Provincial Land Use Planning Agency (Agencia Provincial de Ordenamiento Territorial, APOT) the responsibility of identifying indicators to assess whether the Plan contributes to achieving the SDGs. However, in the report submitted by the province for 2018–2019, actions linked to the plan's proposals are mentioned only rarely, which confirms that work continues to be carried out on a sectoral rather than a comprehensive basis.

Regarding SDG 1 on poverty, the report mentions social protection measures aimed at providing broad coverage for people living in poverty and a legislative proposal to create a comprehensive system for protecting the rights of children and adolescents.

Under SDG 2: End Hunger, the report mentions food assistance for community kitchens, the distribution of subsidies, etc. In neither of these two cases are these actions linked to those carried out within the PPOT subprogram titled “Priority Areas for Socio-Territorial Intervention in the POT.”

Under SDG 3: Good Health and Well-being, the report details completed construction projects and the purchase and delivery of equipment.

Under SDG 4: Quality Education, compliance with various programs is outlined, but these are not linked to the territory.

Under SDG 6: Clean Water and Sanitation, a series of construction projects are detailed, but they are not related to housing density, population density, or priority areas for social intervention, which are addressed in the POT.

Regarding the fulfillment of SDG 11, Sustainable Cities and Communities, the report mentions the Comprehensive Habitat and Housing Plan and

the Mendoza Construye Provincial Plan, as well as projects such as the urban electric tram, the purchase of electric buses, and the restoration of museums and theaters, etc., whereas the Plan establishes as a priority the need to balance the provincial territory by strengthening cities and smaller towns in terms of the provision of infrastructure and public facilities, as well as concrete actions to revitalize the most deprived areas.

Regarding SDG 13, “Climate Action,” the Plan cites the Environmental Education Program, the funding and installation of a network of meteorological and hydrological stations, the comprehensive urban afforestation and reforestation project, etc., while the conservation of native forests, the management of the Protected Natural Areas (PNA) system, as well as actions taken to combat wildfires in the southern part of the province, the air quality and noise monitoring and control system, and the integrated urban solid waste management project are incorporated into SDG 11 but are not considered climate action measures, nor are they linked to the PPOT’s program for risk mitigation against natural and anthropogenic threats.

## **5.2. Development and Land-Use Plan for Cuenca, Ecuador**

At the Cuenca canton level, three PDOTs, for 2010–2014, 2015–2019, and 2022 have been developed since the issuance of the COOTAD in 2010. For this research, we examine the 2022 PDOT, which is currently in effect and was supposed to have been approved in May 2021 following the change in leadership in 2019. However, approval in the second reading did not occur until 2022.

This plan is set in the context of Cuenca, a city located in the south of the country with approximately 600,000 inhabitants; it is considered Ecuador’s third most important city in terms of political and economic significance (Gobierno Autónomo Descentralizado Municipal del Cantón Cuenca [GAD Cuenca], 2022). Studying Land-Use Planning in this city is key to understanding how the challenges and opportunities of national development play out at the local level. Recognized for its cultural, historical, and environmental richness, it is viewed as a living laboratory for analyzing the interaction between population growth, the defense of human rights and nature, heritage preservation, and sustainable land management. Furthermore, by comparing local dynamics with those of the country as a whole, successful models emerge in environmental protection, the provision of basic services, the decentralization of processes, and the promotion of social equity, key elements for advancing toward sustainable local development.

### **5.2.1. The plan as an instrument of territorial policy**

The PND is the highest-level public management instrument that details the policies, programs, and projects to be implemented by the President

of the Republic through the executive branch, comprising its various ministries and national secretariats. This instrument, in accordance with Article 36 of the Organic Code of Planning and Public Finance (COPFP), consists of seven elements that are organized in practice into four sections:

1. An assessment that analyzes the country's historical context and current reality based on an evaluation of compliance with the current PND, official statistics, and the participatory process promoted by the National Planning Secretariat.
2. The proposal, which details the long-term vision, government policies, strategies, goals, and their corresponding indicators designed to address the problems prioritized based on the analysis, as well as the criteria for guiding the allocation of public resources and public investment; and
3. The National Territorial Strategy (Estrategia Territorial Nacional, ETN), which details the guidelines for territorial planning; and,
4. Complementary instruments (Asamblea Nacional, 2010).

With regard to the PDOTs, they constitute the highest-level regulatory instrument for territorial management, which must be updated every four years in conjunction with the change in local authorities (GAD Cuenca, 2022). This instrument consists of three sections:

1. An assessment of the local situation based on an evaluation of the current PDOT, an analysis of local statistics, and citizen participation processes in which local issues are discussed with the public.
2. A proposal that details, within the framework of the competencies of each level of government, the policies, programs, and projects that address the prioritized problems; and
3. A management model that outlines the territorial governance framework enabling the implementation of the PDOT.

In accordance with the provisions of the Constitution and the law, PDOTs throughout the country must be closely aligned with the PND, which in turn is consistent with the international commitments undertaken by the Ecuadorian State, particularly the 2030 Agenda and the SDGs. This multi-level alignment ensures the coherence of policies and programs and guides public investment toward achieving sustainable development, with a view to implementing complementary national and local actions related to the 2030 Agenda. Cuenca's PDOT is no exception; every two years, it must submit to the National Planning Secretariat the alignment matrices with the PND and the SDGs, in accordance with the guidelines and priorities established by this governing body.

### 5.2.2. Plan implementation

One of the central issues is to analyze whether the prioritized strategies address the problems identified in the PDOT, as well as to determine whether or not there is a link to the SDGs. It is noted that the “proposal” section of the 2022 PDOT retains the approach of previous PDOTs by designing strategies by territorial system, even though it appears to seek to coordinate them in a cross-cutting manner. For each system, a strategic objective, policies, targets, indicators, and lines of action are defined, which must be implemented by territorial management.

With regard to habitat, the objective of the human settlements system is “to coordinate and strengthen urban and rural population centers...” (GAD Cuenca, 2022, p. 113). Issues of inequality in the distribution of public facilities and infrastructure, the urban-rural divide, and poor connectivity are addressed through policies aimed at promoting territorial planning, ensuring adequate mobility and efficient connectivity, consolidating and increasing the density of urban areas, guaranteeing the efficient provision of basic services and public facilities, and preventing, managing, and mitigating risks (Sili, 2022).

Some of the goals include: increasing urban density from 57 inhabitants per hectare in 2019 to 61 inhabitants per hectare by 2023; ensuring that, by 2027, 80% of urban parish capitals have urban development plans, achieve a 70% budget execution for road maintenance, by 2023, provide drinking water and sewer service to 98% and 96% of the population, respectively, and ensure that 100% of expansion areas have risk assessments by 2034 (GAD Cuenca, 2022). In the area of poverty and basic needs, the objective of the sociocultural system is defined as “promoting human development and the sustainability of the canton (...)” (GAD Cuenca, 2022, p. 56).

The identified problems are: inadequate access to basic services and infrastructure, particularly in rural areas; these issues are addressed through policies aimed at facilitating access, coverage, retention, and completion of basic education and high school, strengthening the hospital network and disease prevention, ensuring public safety and access to safe and inclusive public spaces, and strengthening programs for prevention, care, protection, and the restoration of rights (GAD Cuenca, 2022).

Our goals for 2023 include achieving an early childhood education enrollment rate of over 90%, an upper secondary school net enrollment rate of over 90%, maintaining the illiteracy rate below 3%, reduce the teenage pregnancy rate from 3.16% in 2017 to 3%, and have a 100% intersectoral public policy agenda in place by 2027 regarding the guarantee of rights for priority groups, among others (GAD Cuenca, 2022).

With regard to climate change, the biophysical system sets as its objective “to ensure environmental conservation and sustainability (...)” (GAD Cuenca, 2022, p. 26). Regarding the problems of environmental degradation, deforestation, and climate vulnerability, the policies aim to guarantee the

rights of nature, promote a shared sense of environmental responsibility with a view to reducing pressure on ecosystems, and strengthen resilience to climate risks, by coordinating environmental action with territorial planning (GAD Cuenca, 2022). As goals for 2023, for example, the plan proposes maintaining 75% of land designated for conservation, reducing the deforestation rate to below 0.26%, and increasing the water quality index to the range (65–67) following oxygenation treatment, and increasing the recreational and natural green space per inhabitant to 12 m<sup>2</sup> (GAD Cuenca, 2022).

### 5.2.3 Links to the sustainable development goals

To align with the SDGs, the GAD's Strategic Planning Directorate completes the matrix designed by the National Planning Secretariat for the "alignment of PDOT policies and targets with the PND and the SDGs" and uses another matrix to determine how the GAD's responsibilities relate to the SDGs. The "alignment" matrix links the GAD's jurisdiction to the objectives and targets of the PDOT, the SDGs, and the PND. Therefore, the process of aligning with the SDGs does not follow a systemic or cross-cutting logic within the framework of territorial complexity, but rather is limited to formal compliance through the completion of matrices included as annexes. This reduces the PDOT's capacity to adapt to changing contexts and formulate truly integrated strategies, thereby weakening its potential as an instrument for territorial management and policy action.

The matrix reports alignment with 9 of the 17 SDGs (3, 6, 8, 9, 11, 12, 15, 16, and 17), which does not imply that the degree of policy implementation or its impact on the territory is being measured. With regard to the SDGs analyzed in this study, the details are as follows:

- SDG 6 aligns with the cantonal authority for environmental management through the biophysical system target "Ensure environmental conservation and sustainability (...)" (GAD, 2022, p. 124) and with the responsibility to provide public services through the human settlements system in the PDOT targets "to keep the percentage of unaccounted-for water below 30%" and to reach 98% and 96% of the population with water and sewer service (GAD, 2022, p. 127).
- SDG 11 is linked to the authority to exercise control over land use and land tenure through the human settlements system and the PDOT target "to increase urban density (...)" (GAD, 2022, p. 126).

## 6. Structure and functions of territorial management

There is a difference between what is known as public administration or management and territorial management. One is the bureaucratic structure

of governmental power responsible for implementing policies, programs, and projects in a fragmented and top-down manner, while the other is responsible for carrying out actions related to the territory by coordinating the national, regional, provincial or State, and municipal levels and building collaborative networks among the government, the private sector, and civil society organizations.

These two forms of administration or management impact the territory because the rigid structure of public administration has resulted in the design of sectoral policies, whereas territorial policy is comprehensive and cuts across sectoral policies. Within the management structure, government agencies perform different functions according to delegated authorities and hierarchical levels. This is very important to consider in order to interpret the role of the actors involved in land-use planning and those responsible for monitoring compliance with the SDGs.

### **6.1. The case of Mendoza, Argentina**

Argentina has a federal system of government, and the provinces, having existed prior to the formation of the nation, enact their own constitutions and regulations. This authority has allowed Mendoza to opt out of the 1994 national constitutional reform, meaning that the municipalities within this Argentine province have limited autonomy.

Prior to the development of the Provincial Land-Use Planning Plan, an assessment of the current situation in the province of Mendoza is conducted. At the political-institutional level, special attention is given to analyzing organizational structures, jurisdictions, and legal and financial capacities for decision-making regarding the territory. It is found that, within the organization of the Provincial Executive Branch, the administration operates specifically according to sectoral planning with few or no scheduled opportunities for integration, which are not provided for in the public budget.

Accordingly, Law No. 8051 on Land Use Planning and Land Use establishes the enforcement authority for the Provincial Land Use Plan and the basic content that this plan and municipal plans must include.

With regard to the bodies established for Land-Use Planning management, the Provincial Land-Use Planning Council (Consejo Provincial de Ordenamiento Territorial, CPOT) and the Provincial Land-Use Planning Agency (Agencia Provincial de Ordenamiento Territorial, APOT) have been created. In both cases, the institutional framework is still in its early stages. The CPOT acts as a consultative and advisory body, with participation from various social actors and representatives of public, private, and civil society institutions. As for the APOT, it falls under the

jurisdiction of the Secretariat of the Environment and is a decentralized agency of the Provincial Executive Branch whose mission is to coordinate the development, implementation, monitoring, and review of the province's land-use planning.

Over time, these institutions have weakened. The CPOT is no longer convened and has been co-opted by provincial government officials. In the case of the Agency, staff appointments are driven more by political considerations than technical expertise, leading to a power struggle over the appointment of technical staff within the agency.

The fact that Land-Use Planning does not have its own dedicated structure within the provincial government prevents it from fulfilling the functions inherent to its nature, namely, coordinating actions among ministries, since land-use policy must be comprehensive and cut across economic, social, and environmental policies. However, because it falls under the purview of the Secretariat of the Environment, its primary responsibilities are environmental rather than land-use-related.

Ultimately, decisions regarding the role played by stakeholders in Land-Use Planning rest in the hands of the government in power. Currently, there are calls for greater participation from CPOT members, university representatives, NGOs, and environmental groups, while the Agency has lost its presence and functions by becoming subordinate to the Ministry of Government, Infrastructure, and Territorial Development and, within that ministry, to the Undersecretariat of Infrastructure and Territorial Development in the province of Mendoza and the Directorate of Territorial Planning. This institutional framework affects the methodological approach to developing indicators and verifying compliance with the 2030 SDGs, because it is unclear which agency has assumed the authority previously delegated to the Agency regarding these goals.

## **6.2. The case of Cuenca, Ecuador**

National and local planning in Ecuador is based on the territorial organization model defined in the Constitution, which divides the territory into regions (not yet established), provinces, cantons, and parishes; each of these geographic districts corresponds to a level of government known as the Decentralized Autonomous Government (Gobierno Autónomo Descentralizado, GAD).

This territorial management model is governed in a decentralized manner through the National System of Competencies. The Constitution and the Organic Code of Territorial Organization (Código Orgánico de Organización Territorial, COOTAD) detail the powers, functions, and responsibilities assigned to each level of government. In parallel with

the decentralized model, the national government implemented, via an executive decree in 2010, the deconcentrated model of the Executive Branch, in which the National Planning Secretariat serves as the national governing body for planning.

This concept of a governing body is established in the Constitution through the definition of management “systems” (Asamblea Nacional, 2008). These systems centrally organize the State’s sectoral (ministerial) management by establishing deconcentrated ministerial bodies organized by territory into Zones, Districts, and Circuits, with the aim of bringing the State closer to citizens and improving the efficiency of service delivery.

Finally, it is important to note that there is a tension between the decentralized model of the GADs and the deconcentrated model of the national government. While decentralization grants political, administrative, and financial autonomy to the GADs, deconcentration maintains the authority of ministries and national entities over decisions and resources in the territories.

These two forms of territorial management create conflict in the coordination of responsibilities, as the GADs seek to exercise their autonomy in territorial planning and local management, while the executive branch’s governing entities establish national guidelines that may conflict with local priorities. The overlap of functions between the national government and the GADs hinders the coordination of public policies, limiting the capacity of local governments to respond to the needs of the population.

To implement planning and carry out cantonal public administration, the GAD of Cuenca created in 2011, at the advisory level, a system of coordinating secretariats to address “decision-making, policy development, the coordination of various areas of municipal management, and the handling of specific matters assigned by the mayor” (Cuenca Cantonal Council, 2011, p. 3). These were renamed “General Coordination” in 2018. Article 32 of the Organic Regulations for Process-Based Organizational Management stipulates that the General Coordination of Planning shall be responsible for “coordinating and articulating territorial and institutional planning with all entities directly and indirectly involved in this process, that is, with the departments or divisions of the Municipal GAD and the decentralized level or Municipal Corporation (...)”. (Ilustre Concejo Cantonal de Cuenca, 2011, p. Art. 32)

Responsibility for the management and implementation of the SDGs is not regulated in the organic regulations governing process-based organizational management; therefore, there is no municipal entity responsible for this process. Although the new organizational model places the general coordination units at the advisory level, the planning

coordination unit was moved to the operational level, ranking below the other coordination units; that is, it lacks the hierarchical authority to coordinate and manage the implementation and alignment of territorial public policies with the PDOT and the SDGs. Furthermore, the Directorate responsible for territorial planning has no influence on decision-making in territorial management, as its hierarchical level places it below the coordination units and on the same level as the other directorates.

With regard to jurisdiction over the SDGs, the national government, through Executive Decree No. 371 of July 30, 2018, adopted the 2030 Agenda as public policy. Furthermore, it stipulates that the Planning Secretariat, in coordination with other government entities, shall ensure alignment with planning instruments, the monitoring and evaluation of targets and indicators, and the preparation of a progress report on their implementation, as well as the organization of participatory forums for dissemination and monitoring.

On July 30, 2018, the Secretariat of Planning issued, through Agreement No.046, the technical standard for the monitoring and evaluation of the SDGs, and on September 17, 2021, Agreement No. SNP-2021-0003, approving the methodological guidelines for linking the SDGs to the National Development Plan (PND); these guidelines were applied in the “Creating Opportunities” PND for 2021–2025. On February 16, 2024, the National Planning Council, through Resolution No. 003-2024-CNP, approved the National Development Plan (PND) for the New Ecuador 2024–2025, linked to the SDGs.

Interviews with former directors of planning and strategic development at the Cuenca GAD indicate that in 2015, support was received from the UNDP to align the SDGs with the POAs through a specialized matrix that was reported to the National Planning Secretariat. Subsequently, this methodology was implemented to evaluate PDOT projects. In 2018, the National Planning Secretariat designed a matrix for aligning the PDOT with the SDGs, which is completed annually and included as an annex to the PDOT. In 2019, the same Secretariat approved the Guide for the Formulation/Update of the Cantonal PDOT, which outlines the process for aligning with SDGs 1, 2, 3, 4, 5, 7, 10, 11, 16, and 17, which are related to cantonal jurisdictions (Secretaría Nacional de Planificación del Ecuador, 2019).

The alignment process involves analyzing the projects proposed in the PDOT and determining which one or ones are related to SDGs 1, 2, 3, 4, 5, 7, 10, 11, 16, and 17. However, at both the national and local levels, there is still no mechanism in place to systematically measure the impact of these projects on the achievement of the SDG targets.

## 7. Similarities and differences between the land-use plan and the sustainable development goals

The analysis conducted shows that these plans are instruments that propose forms of intervention aimed at solving structural problems through the implementation of more comprehensive policies, which would help make decision-making regarding the territory more effective and identify more precise indicators for measuring compliance with the SDGs.

The reality of the Land-Use Plans for Mendoza, Argentina, and Cuenca, Ecuador, demonstrates that obstacles to achieving this goal still exist.

The next step is to identify similarities and differences between the two plans in order to delve deeper into the challenges of implementation and the measurement and monitoring of the SDGs. To this end, the following conceptual categories have been selected: State, regulations, plans, management, instruments, policies, and SDGs; the indicators subject to comparison are: model of the State, regulations related to land-use planning, types of land-use plans, form of public management (entities responsible for implementation and decision-making), public policies, and relationships with the SDGs. Table 1.

**Table 1** Similarities and differences in the implementation process of the PDOT and the SDGs in Cuenca and Mendoza

| Criteria                      | Cuenca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mendoza                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State model                   | Unitary. Nation, region (not formally established), provinces, cantons, parishes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Federal: Nation, provinces, and departments or municipalities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Regulations on Land Use Plans | It is enshrined as a principle in the Constitution. Since 2010, it has been the responsibility of the GADs to develop and approve the PDOTs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | There is no national legislation; Law No. 8051 on Territorial Planning in the province of Mendoza is the first of its kind in the country. Year 2009.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Analysis Tool                 | PDOT, a cantonal ordinance approved by the Cuenca Cantonal Council on October 26, 2022.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PDOT, approved by Law No. 8999 of 2017.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Structure of the POT and PDOT | <ol style="list-style-type: none"> <li>1. Analysis of the territorial system by subsystem or component.</li> <li>2. Assessment of the local situation, statistical analysis by component, and citizen participation processes in which local issues are discussed with the public.</li> <li>3. Proposal detailing, within the framework of the competencies of each level of government, the policies, programs, and projects that address the problems prioritized by component and the campaign promises made every four years.</li> <li>4. Management model that details the territorial governance model enabling the implementation of the PDOT.</li> </ol> | <ol style="list-style-type: none"> <li>1. Analysis of the territorial system by subsystem.</li> <li>2. Diagnosis: identification of structural problems arising from the interrelationship of the subsystems.</li> <li>3. Forward-looking analysis: development of territorial models that are submitted for consideration by social stakeholders.</li> <li>4. Plan: contains territorial planning and management objectives, programs, and instruments to be implemented in the short, medium, and long term. It is approved by society and enacted into law.</li> </ol> |

| Criteria                                            | Cuenca                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mendoza                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entities Subject to the POT (Public Administration) | <ul style="list-style-type: none"> <li>- The General Coordination Office for Planning does not have sufficient authority to coordinate and oversee compliance with the PDOTs and the SDGs.</li> <li>- The office responsible for territorial planning lacks the organizational authority to influence territorial management.</li> <li>- The ministries do not coordinate territorial management with the GAD nor do they take the PDOT into account.</li> <li>- Compliance with the SDGs is limited to a technical procedure of filling out matrices issued by the National Planning Secretariat, which are attached as an annex to the PDOT.</li> </ul> | <ul style="list-style-type: none"> <li>- Lack of a dedicated space for territorial planning within the organizational chart.</li> <li>- Sectoral planning with few opportunities for integration.</li> <li>- Weak institutional capacity of the Provincial Land Use Planning Council and the Land Use Planning Agency (APOT).</li> <li>- APOT is responsible for SDG reports, but the actions outlined do not align with the Provincial Land Use Plan (POT).</li> </ul>                                               |
| Political Decision-Making                           | <ul style="list-style-type: none"> <li>- The decision-making process is political.</li> <li>- The PDOT has not succeeded in establishing itself as a cantonal regulatory instrument for political action and territorial management</li> <li>- Policies, programs, and projects respond to campaign promises, not to the Plan.</li> </ul>                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>- They support the OT process.</li> <li>- They secure international funding to implement the Plan.</li> <li>- They promote the Territorial Plan and the SDGs, but their decisions remain sector-specific.</li> </ul>                                                                                                                                                                                                                                                           |
| Public Policies                                     | Policies and programs designed on a sectoral basis by subsystem, with greater emphasis on urban areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Specific, sector-based interventions, especially in metropolitan areas.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Linkage with the SDGs                               | <ul style="list-style-type: none"> <li>- The link is technical through a load matrix of the PDOT projects that have the greatest relationship with SDGs prioritized by the Planning Secretariat according to municipal competencies.</li> <li>- There is no mechanism in place to systematically measure the impact of these projects on achieving the SDG goals.</li> </ul>                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- They only report on policies that respond to the SDGs.</li> <li>- Problems related to habitat, imbalances, poverty and climate change are considered in the Plan and the SDGs.</li> <li>- They are not included in the reports prepared by APOT, which detail sectoral policies that do not take into account the complexity of the problems identified in the POT that contribute to achieving the SDGs.</li> <li>- The impact on the territory is not assessed.</li> </ul> |

A comparison of the selected cases shows that both have a plan approved by regulation, but the structure of their content differs in terms of how the assessment is approached and how intervention proposals are identified. Conversely, policy decisions are similar; they do not take the Plan into account, and the bodies created to coordinate efforts lack the authority to do so. Consequently, the policies implemented are sector-specific rather than comprehensive, as the complexity of the problems to be solved would require.

The measures taken to address these problems are also similar because, in neither case, have there been profound changes in decision-making or in how decisions are managed, which requires a different approach to the conception of public policy. Regarding the Plan's relationship with the SDGs, the Plan addresses issues related to human settlements, poverty, and climate change, but it does so differently; and while it reports on the Plan's link to the SDGs, it does not assess the impact of sectoral policies

on the territory or the degree of compliance with the SDGs according to the proposed targets.

## **8. Strategy for linking the SDGs to land-use planning**

As mentioned above, the 2030 Agenda for Sustainable Development contains 17 goals and 169 targets. To monitor progress, 231 indicators were designed to gather information from UN member states.

Although initiatives such as the Cities Investment Index or Quality of Life exist, the focus is on cities rather than on the territory as a complex system in which urban-rural interrelationships arise, ultimately leading to imbalances, inequities, and environmental degradation.

What they attempt to measure is urban development through indicators such as GDP, capital flows, market dynamics, infrastructure and digital connectivity, access to information, talent, innovation (patents, AI adoption), and sustainability (environmental impact, resource management), indicators that cannot always be measured because many countries lack systematic data.

In the case of quality-of-life indicators, the goal is to measure people's physical, material, social, emotional, and developmental well-being. In general, countries have statistics on income, housing, employment, life expectancy, mortality rates, access to health services, educational attainment, literacy, green spaces, air quality, etc., but these are sectoral data that are not georeferenced. However, measuring quality of life also includes other indicators that are more difficult to obtain, such as those related to support networks, family relationships, community participation, self-esteem, freedom, and safety, among others.

In other words, many of these statistics are not always suitable for measuring these indicators, so public policies are designed based on statistics that fail to identify the issues actually present in local communities.

In general, governments try to apply sectoral indicators but fail to consider that the SDGs aim to address issues that manifest at different scales; for example, at the national level, SDG 10 addresses inequalities, SDG 11 addresses urban issues, and SDG 13 addresses climate change. At a more detailed and sector-specific level are SDG 3 (health), SDG 4 (education), SDG 6 (water and sanitation), and SDG 8 (economic growth, employment, and work); while others are more complex because they involve multiple sectors and SDGs: SDG 1 (poverty), SDG 2 (hunger), SDG 7 (energy), and SDG 9 (infrastructure at the local level).

Another example that illustrates the complexity of the SDGs is when considering issues such as housing, where the SDGs to be achieved

are at the city level (SDG 11: Sustainable Cities and Communities) but also at the local level (SDGs 6, 4, 3) to ensure access to safe, adequate, and affordable housing and basic services (Target: 11.1), reduce the per capita environmental impact in cities (Target: 11.6), achieve universal and equitable access to safe drinking water at an affordable price for all (Target: 6.1) and to sanitation and hygiene services (Target: 6.2), and ensure universal access to sexual and reproductive health services, including family planning, information, and education (Target: 3), among others. Striving for a healthy and adequate living environment means considering housing, the provision of water, electricity, and sanitation services, and an environment free from pollution and risks posed by natural hazards.

With regard to poverty, the proposed SDG has various targets and indicators that do not distinguish between those living in urban centers and those in rural areas, and it also includes indicators that correspond to targets of other SDGs, such as SDGs 11 and 6. Reducing poverty involves addressing not only the socioeconomic conditions of the urban population but also those of the rural population, by improving conditions related to food, housing, education, healthcare, and access to safe drinking water.

In the case of Goal 13, to take urgent action to combat climate change and its impacts, the targets and indicators are set at different scales but do not include indicators related to vulnerability and natural hazards, which are directly linked to the territory. Reducing the risk of natural disasters requires understanding the population's level of vulnerability and identifying natural hazards, as well as the structural and non-structural measures that have been implemented.

Therefore, recognizing the complexity of the SDGs and their connection to territorial issues and implemented policies forms the basis for developing a strategy that links the SDGs to land-use planning by territorializing the targets to be achieved.

The process involves focusing on selecting indicators from the POT or PDOT and monitoring the intervention actions outlined in the plan; to this end, it is important to follow these recommendations:

- Identify how to link the POT or PDOT to the SDGs, some of which align with the objectives of the Plan endorsed by society.
- Work with the results of the territorial analysis and assessment to identify issues; to this end, it would be important for national and provincial statistical systems to include indicators that incorporate georeferencing.
- Develop indices that result from combining sectoral indicators (education, health, infrastructure, etc.) with territorial indicators.

Territorial indicators are defined as social, environmental, or economic indicators that have spatial georeferencing (e.g., areas of influence, density).

- Apply these indices at the territorial level, for example, to identify priority areas for addressing poverty, housing issues, and risks related to natural disasters.
- Assess the impact of the intervention actions proposed in the Plan (programs, projects) and determine the degree of compliance with the Plan and the SDGs.

## 9. Concluding remarks

The public policies implemented by successive governments to resolve problems related to housing and poverty or to address the current effects of natural disasters caused by climate change continue to fail. This is due to the persistence of a rigid, top-down management model, which reflects the way the public administration is organized. Consequently, the proposed solutions are sector-specific, whereas the reality demands that they should be comprehensive.

One of the intervention tools used is land-use planning, but its implementation has not been successful. This is due to technical challenges in understanding existing interrelationships and identifying short-term, medium-term, and long-term actions, as well as to political interests and managerial inertia.

This situation is exacerbated when there are UN mandates, such as the SDGs, because politicians adopt their guidelines, at least in their speeches, and, when committed to monitoring progress, use indicators derived from the implementation of sectoral policies without linking them to land-use plans endorsed by society. Consequently, the reports that countries are required to prepare on SDG monitoring do not reflect the reality on the ground.

The purpose of the recommendations made as part of the proposed strategy is to help establish links between land-use planning and the SDGs, so that the SDGs are properly incorporated into the political agenda and so that intervention measures bring about structural changes in the development model.

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