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Growth and Structure of Manta (Ecuador): Logics and Contradictions of the Urban Development Process in the Last Decades (1965-2014)

I. URBANIZATION AS A COROLLARY OF DEVELOPMENT IN LATIN AMERICA: A COMMON ATTRIBUTE IN THE ACCELERATED REGIONAL TERRITORIAL TRANSFORMATION

At the start of the 21st century, urban development throughout the world was still characterized by the increase in urban population, with over half the planet's population living in cities to the detriment of the rural population. Rapid urban development and the high percentage of urban population is a common feature in Latin America and the Caribbean, and this meant that it was the most intensely urban developing region in the world, with 391 million inhabitants in the cities in the year 2000, corresponding to 75 % of the total population (RODRÍGUEZ, 2002: 25), a percentage that, according to current projections will rise to 82.2 % in 2025 (LATES, 2000: 50). This process of urban development, which is linked to globalization, has had socioeconomic, political-cultural and environmental consequences. It is therefore considered to be the principal process of space redistribution in the region over the last one hundred years. It is mainly visible in concentration and centralization processes in metropolitan territories and large cities, which were conducive to economic growth and the recirculation of capital. (MATURANA, 2019) (CARRIÓN, 2010: 7). The intermediate-sized cities were also involved in this territorial restructuring, mainly those that have acquired an important population, those that have had to face new challenges in line with their characteristics, and those which have gained importance

within their area of local and regional influence (MATURANA, 2019).

Data for the year 2015 indicate that, in Latin America and the Caribbean, of the almost 80 % of the population, which is urban, half live in cities with fewer than 500,000 inhabitants, thus demonstrating that the generation of wealth in the region can mainly be attributed to the secondary urban centres (LLOP & VIVANCO, 2017:51). Therefore, the current urban development should be understood by considering the role that intermediate-sized cities have played. First of all because of the relations they promote within the system of cities, as they are intermediary nodes “in particular, between the globalized flows and concrete territories” (LLOP & VIVANCO, 2017: 48); and secondly because they are providers of goods and services, exercising the central functions of an economic, social and political nature within their area of influence (MATURANA, SPOSITO, BALLEST & HENRÍQUES, 2017).

The economic importance of cities is evident from the advantages for developing economic activities offered by the concentration; thus, attracting more population who come in search of the said attractions, which are supplemented according to the hierarchy and the competitive advantages of the agglomeration that would be fundamental for growth (CAPEL, 1975; BORRERO, 2005; CAMAGNI, 2005). The demographic and economic growth of medium-sized cities has influenced the processes of urban development. On an internal level, this can be seen in a reorganization of the urban space with new ways of functioning, in the occupation of the areas of expan-

sion and in the changing nature of the urban forms (PRIETO, 2011; MATURANA, 2019, MORALES 2019; AZOCAR, 2003; VILLANUEVA 2015; SOJET, 2015, ÁLVAREZ, 2017).

Following the phases of urban development in Latin America, the cities have changed from being highly compact bodies to a sectorial perimeter, and from polarised organisms to fragmented cities, in which the influence of globalization and the neoliberal economic context that allowed greater freedom to reflect the models and urban structural dynamics of the region's cities (BORSORF, 2003). In studying the processes of urban expansion, the first thing we see is its form, the urban sprawl, and the incorporation of built-up space that implies new demands on urban infrastructures, amenities, and services. In addition to the above, we have new centralities, the fragmentation of the urban space, the privatization of services, and a decrease in the planning previously conducted by the State; all of which have encouraged the exacerbation of the social division of the urban space with the creation of physical barriers to protect the wealthy quarters. (JANOSCHKA, 2002).

In the case of urban development in Ecuador, the medium-sized cities were already gaining in importance in the second half of the 20th century through the colonization of the Ecuadorian Coast associated with the production of bananas, where it is medium-sized urban centres that are created (ALLOU, 1987). Some of these centres have maintained their hierarchy up to the present time, mainly those on the coast with greater economic dynamism. In 2010, there were a total of twenty-one medium-sized cities in the country. The urban development of Ecuador has been characterized by the generation of disorderly growth, lacking any planning, with profound territorial inequalities, a meteoric expansion of the surface occupied by urban uses and an intensification of the suburban uses which have contributed to the dispersion of urban development, leaving the demands for basic services unsatisfied (MIDUVI, 2015: 5, 58) (MEJÍA, 2020).

Manta is among the major medium-sized cities of Ecuador and is situated on the Pacific coast, the same coast that has experienced an enormous demographic and territorial growth due to the immigration following the creation of the deep-water port at the end of the 1960s, which currently maintains its dynamism through the consolidation of its productive activities. Nevertheless, the growth of Manta has hardly been studied, with a few notable exceptions (SÁINZ GUERRA, 2014; OROZCO, 2012), since most analyses have focused on the cities that have a more important hierarchical role. There is less knowledge of the smaller cities, even though they have mainly been af-

ected by the lack of any urban planning policies (CARRIÓN, 2010).

Within this framework, the main questions and principal objective of this research are to make a detailed examination of the aspects that have characterized the urban growth of Manta and what transformations and conditions of occupation of the urban space have been involved since the city shows a greater economic dynamism. We study the evolution of the urban sprawl between 1965 and the first decades of the current century and its correlation with the demographic situation, as well as the analysis of the location of the activities, the urban structure, and its form to better understand how the current city came into being.

The methods and tools used in this study were limited by an obvious lack of information, prior studies, digital cartography and up-to-date population censuses, which have conditioned the period of analysis. To deal with the temporal aspects of the urban activities and socioeconomic contexts, we used historical bibliography, press records and such local informants as could be found. This was complemented by the authors' prior knowledge of the city.

II. THE CITY OF MANTA AS A MODEL OF URBAN AND DEMOGRAPHIC GROWTH: THE PARADIGM OF RAPID URBAN DEVELOPMENT IN ECUADOR

The position of Manta as a medium-sized city has been maintained since the mid-twentieth century, occupying the seventh position in the cities of Ecuador. It stands out as being attractive to the new population due to its economic specialization with regional, national, and international influence based on port activities, manufacturing, fish exports, the development of tourism, services, and property development.

A first approximation to the study of the analysed period, which covers almost 50 years, shows us that the city of Manta has increased its occupied surface area by almost 18-fold between 1965 and 2014 (see Table I). In the first phase, between 1965 and 1978, the territorial expansion was moderate, almost doubling the surface area from 288 to 523 hectares. However, during the second phase, between 1978 and 1990, the urban area increased fivefold, from 523 to 1,474 hectares. The most meteoric growth of the city occurred in the last phase analysed, from 1990 onwards, reaching 5,185 hectares in 2014. This situation consolidated a tendency in which the population density was descending throughout the analysed period, reaching

approximately forty-four inhabitants per hectare in 2014 (see Table II). This is below the national average, which was about sixty inhabitants per hectare in 2010 in Ecuador (INEC, 2010). This also coincides with the data registered by large and medium-sized cities on a world level, which are expanding through intense processes towards the suburbs, following low-density, dispersed population patterns (MIDUVI, 2015: 59).

III. AN UNEQUAL URBAN DEVELOPMENT: PRINCIPAL MILESTONES IN THE PROCESS OF DEMOGRAPHIC AND SPATIAL GROWTH OF THE CITY OF MANTA

The study of the way Manta is growing, and the transformation process of its urban sprawl has been carried out following the review of four moments that define the principal stages of its evolution and the spatial configuration of the city. The map shown in Figure 1 facilitates the identification of the elements of the current urban structure.

1. THE FUNDAMENTALS OF THE PROCESS: A SMALL CITY AWAITING THE START OF ITS CYCLE OF TRANSFORMATION

The first phase analysed, up to 1965, constitutes the starting point for comparing the three later phases of the study, since it corresponds to the period before the city's great transformation and the moment in which the idea of the exporting, deep-water port that would have significant importance is forged.

The form of the settlement becomes apparent from the appearance of two initial centres naturally separated by the topography and the presence of the Manta River that divides the two parishes, Manta in the high area and Tarqui¹ in the low area, which had developed up to that time, following the contours of the bay and its foundational orthogonal basis. The expectations for the construction of the deep-water port led to the arrival of more population and the occupation of the settlement from the old fishing village of Los Esteros in the east to the so-called Punta del Murciélago (Bat Point) in North-West Manta, where the beach ends in a cliff. Manta covered an area of just over 288 hectares in 1965, with a greater land

occupation in the parish of Manta, a population of 40,288 inhabitants and a density of around 140 inhabitants per hectare². The buildings were of one or two floors, with a few three-floor buildings in the main streets of downtown Manta (see Figure 2).

In this first phase, the functional specializations begin to appear: the parish of Manta, also known as "El Centro" (downtown), consists mainly of administrative activities, and port and residential services, laid out in rectangular blocks oriented towards the sea; while Tarqui consists mainly of diverse productive activities such as small-scale fishing, shops, nascent tourism, and industrial activity. The important urban facilities begin to appear in the outskirts of the city (see Figure 3). Manta is taking shape as a terminal city in the central coastal area of Ecuador, connected to the rest of the country by the Manta-Quevedo highway, which is connected to the Malecón Jaime Chávez Gutiérrez (Waterfront) and the North-West area of the city, crossing the river.

2. THE BEGINNING OF THE END OF THE TRADITIONAL GROWTH MODEL. THE CITY OF MANTA BETWEEN 1965 AND 1978

The second phase (1965-1978) is the time when more people start to arrive, attracted by the deep-water port operation and the exporting activity. The city has spread preferentially towards the South-East of Tarqui, between the coastline and the area surrounding the Manta-Quevedo highway, starting to occupy the plain that borders the Montecristi district and to the South, between the coast and the plain of the Center of Manta, which is starting to be consolidated but which still has many vacant plots (see Figure 4). In 1978, Manta occupied around 523 hectares of land, almost twice as much as was occupied in the previous phase, while the population has grown by almost the same proportion³, reaching just over 70,000 inhabitants. The density of the population was around 133 inhabitants per hectare, like the previous phase; however, like the population, the urban sprawl had doubled. We start to find the first tall buildings in the Centre and the area of the Malecón⁴, used as offices and high-class housing, whose owners were connected to the business of im-

² INEC Census of 1962.

³ INEC Census of 1974.

⁴ As an example, the El Vigía building was considered an exception for this period, with sixteen floors.

¹ Tarqui has been considered the second urban parish since 1929.

porting goods and exporting coffee through the port⁵ (EL DIARIO, 2014).

The parish of Manta continued to strengthen its administrative, port, and residential functions, but it also began to attract new services and receive tourists due to the accessibility of the ocean beach, facilitated by the works of the Malecón (see Figure 6). On the other hand, Tarqui continued to consolidate its commercial vocation, whilst the new urban parish of Los Esteros⁶, next to Tarqui and on the coast, began to be occupied by tuna processing factories, as well as housing, mainly for workers in the said factories. The coexistence of industry and housing is a characteristic of Los Esteros, a situation that was not regulated by the local administration at the time. There is a notably disorderly development during this phase, so in 1977 the local authorities passed the city's first Urban Development Ordinance (CONSEJO CANTONAL DE MANTA, 1977). The city's main connection with the rest of the country, the Manta-Quevedo highway, became the principal means of the expansion of, first Tarqui, and later Los Esteros, towards Montecristi.

3. 1979-1990: THE RUPTURING OF THE TRADITIONAL GROWTH PATTERNS AND THE FIRST LOW-DENSITY EXPANSION

The third phase (1978-1990) corresponds to the time when the maximum number of the immigrant population was arriving and the start of the low-density urban expansion, preferably towards the South and South-East, with the greatest strain falling on the parish of Tarqui (see Figure 7), showing an irregular form, with a narrower central zone corresponding to the course of the Manta River. Land occupation in the parish of Manta takes place almost exclusively on the southern plain and towards the area surrounding the local ULEAM University Campus; while in Tarqui, the plain in the eastern zone begins to be occupied, the area next to the neighbouring district of Montecristi, as well as towards the South-East, up against the 4 de Noviembre Avenue. During this phase, the urban network of the newly incorporated areas began to lose its regularity, adapting to the topography and adopting an unplanned pattern of growth. As an example, towards the West, the urban network began to adapt to the slope that exists towards the maritime profile of the Barbasquillo

area; while Tarqui incorporated neighbourhoods or land parcellation with almost no planning and social housing programs.

The population growth that occurred over this time can be attributed to the abovementioned migration in the 1980s, attracted by the new industries of the manufacturing and fishing sectors that offered the possibility of employment. As for land occupation, the city had practically tripled its occupied surface area since 1978, reaching around 1,475 hectares with a density of ninety inhabitants per hectare. This shows a decrease concerning the previous phase, as a pattern of low-density urban dispersion began to be consolidated.

This analysed phase coincides with the last years of the coffee boom as the main driving force of the economy of Manta. In the future, it would focus more on the fishing industry, attracting an economically poorer rural workforce; thus, bringing about a change in the city's social structure, and the rise in problems that would bring with it: informality, delinquency, and slums lacking in infrastructures and basic services, growing demands that the municipal administration fails to find an adequate response to.

4. TOWARDS THE CONSOLIDATION OF THE METROPOLITAN GROWTH: THE NEW DIFFUSE CITY (1991-2014)

This fourth and last phase of analysis, between the end of the last century and the start of this (1990-2014), represents for the city the boom in economic activity, as well as the maximum extension of the occupied surface area, overcoming the natural barriers and the capacity to spread inland. The urban sprawl has almost reached the Eloy Alfaro Airport and the neighbouring districts of Jaramijó and Montecristi in the East and South-East, as well as towards the West to surround the Fuel Terminal of Barbasquillo on the coast and to the outskirts of the Lagunas de Oxidación in the South-West (see Figures 1 & 8). The city spreads out, conforming to the scarce plains and to a more uneven relief on the southern and western outskirts, where the urban network is less regular, adapting itself to the topography and the presence of new structural communication routes⁷, to which the city has been discontinuously hooking up, like bunches of grapes, creating closed-off housing estates that lack in-

⁵ Since the previous decade, the port had been the foremost exporter of coffee in the country.

⁶ The urban parish of Los Esteros was created in 1979.

⁷ Ring road Section I & Section II; road to Barbasquillo; road to San Mateo; Inter-district road, among others.

ternal roads connected to the surroundings, thus making any surrounding accessibility more difficult.

The final years of the previous century were very fruitful for Manta in terms of its economic activity, strengthened by macroeconomic changes in the country⁸ which brought strong private investments. Together with the local public investments, this encouraged a new physiognomy for Manta, with high-level buildings and residential zones because of the advance of the activity of property developers in the south-western areas of the city. Nevertheless, these better-endowed areas contrast with the inadequate land occupation⁹ to house the poorer population in the southern part of the city. This demonstrates a complete lack of control concerning land use, despite the existence since 1999 of the ordinances¹⁰ created for that very purpose.

Land occupation in this last phase shows a notable increase, growing 3.5 times since 1990, with around 5,185 hectares in 2014, demonstrating the rapid expansion of the urban sprawl (see Table I). The growth of the population in this phase continues the decreasing tendency from 1990, with a total population of 226,477 inhabitants¹¹ and a density of 45 inhabitants per hectare, half that of the previous phase, which ratifies the tendency of moving towards a low density pattern, a reality that is shared with the largest cities of Ecuador, as well as some other medium-sized cities (see Table III).

IV. THE MORPHOLOGY -TYPOLOGY- AS A DETERMINANT OF THE NEW URBAN STRUCTURE OF MANTA (1965-2014)

Based on the analysis conducted in the above section and the changes that have occurred in the patterns of land occupation, we shall now briefly describe the urban models that have been presented from the period under analysis (see Figure 10).

The two initial centres, Manta and Tarqui, physically separated by the Manta River, originally possessed a polynuclear urban model strengthened by the functional specialization of each one. However, around the 1960s, they were heading towards a compact, concentric model (C) in each of the two centres; or semi-circular if

we consider the natural barrier of the ocean. The housing estates of the middle and upper-middle classes were situated around the administrative centre of Manta; while the housing of the poorest classes, mainly fishers and migrants was gathered in Tarqui. The Manta-Quevedo highway in Tarqui propitiates the appearance of the axial sectorial model (SA) in the 1980s and 1990s, due to the introduction of productive activities and housing for the workers and the lower middle and low classes of the population, thus facilitating the occupation of the land towards the plain of Montecristi.

At the end of the 1980s, the parish of Manta began to occupy the land around the university campus. New housing estates started to appear for the middle and upper-middle classes. This coincides with the start of the fastest expansion of the urban sprawl in the 1990s, which led to a low-density, disperse urban development model (D). This occurred through the promotion of new land plots, social housing, housing estates and closed-off housing areas. The construction of new structural main roads facilitated the combination of the disperse model with that of the Bunch of grapes (D/R), where the urban network and the closed-off housing estates were connected to the said roads, taking advantage of their accessibility and therefore reinforcing the pattern of social segregation and disorderly urban growth that has been maintained up to the present.

V. CONCLUSIONS

This work of research aims to show the reality of a medium-sized city that exhibits rapid demographic growth together with an extraordinary amount of land use for urban purposes. All of this has been determined by the dynamics of its economic development and its vocation as a port, attracting both investment and population up to the present time.

Public investment in road infrastructures has been key to the land area expansion; however, a weakness in the urban land policies can be perceived, both for what they lack and for their bad timing, since they do not manage to bring about positive effects on the orientation or regulation of the city's expansion.

The city's passage from a compact, polynuclear urban model to one that is dispersed and fragmented has been supported by the incorporation of principal road axes that have encouraged the non-homogeneous occupation of the outskirts, with many interstitial spaces and little planning, thus reinforcing a disorderly urban

⁸ Dollarization of the economy in 2000.

⁹ Riverbed and banks, gorge edges and slopes.

¹⁰ Ordinance of City Planning, Architecture, Land Use & Occupation in the Manta District, updated in 2013.

¹¹ INEC Census 2010.

growth. To the above, we must add the strengthening of the social differentiation pattern of the already existing space and the deterioration of the social and environmental situation, further exacerbated by the scarcity of interventions on the part of the local public sector concerning services and infrastructures in the areas that most needed them.

Manta has demonstrated a clear dynamism ever since its beginnings, in which private investment has played a significant role, taking advantage of the opportunities to develop a wide range of productive activities, including real estate, which appeared mainly in the areas with the best urban facilities and relying on the relative scarcity of any planning regulations.

Finally, it can be said that the urban development process which has spatially and socially created the city is inherent to its historical evolution and the conditions of its economic dynamism. However, without a doubt, it contains elements that can be compared to other medium-sized cities in Latin America, such as its distribution, agglomeration, expansion and deficiencies in both planning and management. This sets out an important challenge for the future, not only for public management but also for the entire combined set of actors, especially from the private sector, to encourage ways of taking better advantage of what is offered by the economic growth and to reinvest effectively for the benefit of the sustainable urban development of Manta.