

# The Problem of Population Distribution in the Province of Constantine (Algeria) and Field Reorganization

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## Abstract

This article aims to discuss the problem of population distribution in the province of Constantine and field reorganization, as the inhabitants of this province are spread unevenly through its municipalities. There are municipalities in which inhabitants are concentrated enormously, whereas others are almost empty, which has a negative impact on its field and has given it an unbalanced picture. (areas suffering from concentration and others marginalized). Also, we will seek through this article to highlight this distribution and these imbalances, and finally we will give a set of suggestions or solutions that can be adopted to reorganize its field and thus eliminate these imbalances.

**Keywords:** Population, Distribution, Density, Field, Dysfunction, Reorganization.

## INTRODUCTION

The demographic factor has an important role in structuring the field, especially population distribution and rapid growth, which have a direct impact on it. The people concentration in one region but not another gives it a heterogeneous picture and results in pressure on areas having a large population concentration and thus a demographic weight, in addition to the factor of rural displacement, which adds complication, especially if it is random. Algeria is considered one of the countries that had experienced a massive rural displacement movement immediately after independence, which was from rural provinces to the bigger cities, but their concentration was random within these cities and was thus reflected in the image of the field of these provinces and resulted in the emergence of imbalances in them; the province of Constantine is one of those states.

### The Objective of the Study

Through this study, we seek to:

- Highlight the population distribution of the province, through its field and the imbalances that resulted from them.
- Give a set of suggestions to reorganize the field of the province.

### Problem

To reach the aim of our research, we have asked the following questions:

- How are the inhabitants of the province of Constantine spread across its field? What are the imbalances resulted from this distribution?
- What suggestions or solutions can be adopted to reorganize the field?

### Research Hypotheses

- The province population is widely distributed in municipalities but not others, which results in the disruption of the two fields, represented in high-density municipalities with population pressure and other low-density, semi-empty and marginalized municipalities.
- The solutions lie in focusing on the marginalized municipalities, by developing them and de-isolating them to make them population-attractive municipalities, as well as establishing in them new towns, in which the populations will be relocated from overpopulated and highly populated municipalities.

## **METHODOLOGICAL APPROACH**

To answer the problem of this research, and reach the goal we seek through it, we first started by determining a set of general concepts on the topic, then presented the province; after that, we moved to the stages of population growth in it. Next, we reached the main point, which is the distribution of the inhabitants across its field and the imbalances resulted from it, to provide, finally, a set of solutions and suggestions that, in our opinion, would organize the field and eliminate the imbalance in it. In all of these, we have adopted two approaches: the descriptive method and analytical methods, based on a set of tables and maps.

### **GENERAL CONCEPTS**

#### **Population Distribution**

It means the distribution of the absolute number of inhabitants within the cadastral units (administrative); the smaller the administrative unit and the larger the population, the more concentrated the distribution [1].

#### **Population Density**

It is a relationship between the population and the area of land in which they live; they are generally represented as individuals per square kilometer, and the more people in it the more stressed it is [2].

#### **The Field**

It is a physical earthy area that receives human activity and is subject to specific regulation; It can be studied through a different approach that falls under field analysis [3].

#### **Field Organization**

Field organization represents equitable distribution and provision of all life requirements by rational use of the land and by a scientific regulatory method, governed by the regulations and laws governing the field, in order to provide better conditions of life and meet the growing needs of the population, better distribution of facilities in line with growth requirements; in order to achieve this goal, facilities and amenities must be built in the field, taking into account the diversity of the functions of each region[4].

#### **Objectives of Field Organization**

It aims to achieve clear and specific objectives in [5]:

- Balancing the geographical distribution of the population, on the one hand, and reducing the development disparity between territories and the different regions within the same territory, through finding new growth and attraction centers.
- To reduce economic and social disparities between different regions and achieve field balance and social justice, through a better distribution of the population and activities at the level of these regions, in order to overcome all demographic, economic and environmental challenges, taking into account the specificities and possibilities of each region.
- Reducing pressure on major centers, resulting mainly from rural migration and reducing rural-urban disparities, as a result of territorial development and equitable and balanced distribution of investments and services;
- Raising the population's standard of living in the territories, by providing all services and activity opportunities, and reducing unemployment, as well as rural migration (reducing movements).

## **PRESENTATION OF THE PROVINCE**

### **Geographical Location**

The province of Constantine is situated in the eastern part of Algeria, which is considered one of the country's main regions. It is 245 km far from the Algerian-Tunisian border, to the east and 431 km from the capital, to the west, and 89 km from the city of Skikda to the north, 235 km from the city of Biskra, to the south, which makes it occupies a strategic position, because it has a pivotal road network, linking between North and South, East and West [6], limited by the following provinces: Guelma from the East, Mila from the West, Skikda from the North, and Oum El Bouaghi from the South (Map No. (01)).



**Map 1**

## Area

It has an area of 2297.2 km<sup>2</sup>, representing 0.09% of the total national territory, which represents 2381741 km<sup>2</sup> and 1.88% of the total area of the Algerian East, consisting of 17 provinces [7].

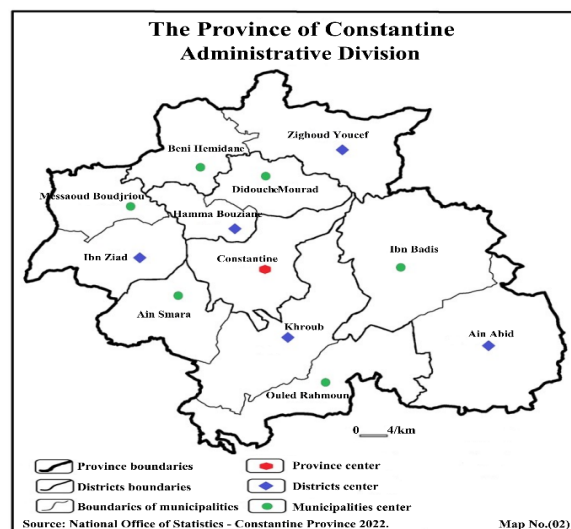
## Administrative Division

**Table 1.** The Province of Constantine; Administrative Division

Districts	Municipalities
Constantine	Constantine
El Khroub	El Khroub – Ain Smara – Ouled Rahmoun
Hama Bouziane	Hama Bouziane – Didouche Mourad
Zighoud Youcef	Zighoud Youcef – Beni Hmidane
Ain Abid	Ain Abid – Ibn Badis
Ibn Ziad	Ibn Ziad – Mésaoud Boujeriou

**Source:** National Office of Statistics – Constantine Province 2022

It is divided into 6 Districts and 12 Municipalities, as shown on Table No. (01), and the Map No. (02).



**Map 2**

## STAGES OF THE PROVINCE POPULATION GROWTH

The stages of the growth of Constantine population can be summarized on the basis of the following successive censuses:

**Table 2.** Stages of population growth in the province of Constantine.

Censuses	Population (Inhabitant)	Population Growth (Inhabitant)	Growth Rate (%)	National Rate (%)
1966	290623	/	/	/
1977	478300	187677	4.69	2.2
1987	664303	186003	3.3	3.2
1998	810914	146611	1.82	2.5
2008	938475	127561	1.5	1.6
2022	1155970	217495	1.5	1.6

Source: National Office of Statistics – Constantine Province 2022.

### Phase 1 (1966-1977)

It is the phase just after the independence, during which the province experienced significant and accelerated population growth from 290 623 inhabitants in 1966 to 478 300 in 1977, which means a population increase of 187 677 inhabitants and an annual growth rate of 4.69%, which is higher than the national annual growth rate estimated at 2.2%. This increase is due mainly to the province massive rural displacement in this period, especially from neighboring provinces.

### Phase 2 (1977-1987)

During this period, the province continued to increase at approximately the same pace as the previous phase (slightly lower), from 478 300 inhabitants in 1977 to 66,4303 inhabitants in 1987, with an annual growth rate of 3.3%, which is nearly equal to the estimated national annual rate of 3.2%. This increase is due mainly to the persistence of rural displacement to this province under the projects that it benefited from, through the country's development policy in this period.

### Phase 3 (1987-1998)

The state has experienced a low population increase compared to the previous two periods, from 664 303 inhabitants in 1987 to 810 914 inhabitants in 1998, an increase of 146 611 inhabitants and an annual growth rate of 1.82%, which is lower than the national annual average of 2.15%. This increase is due mainly to births, a weak increase that has decreased compared to the previous two periods, as it has been affected by the country's black decade of the whole country, and the deteriorating economic conditions and cost of living.

### Phase 4 (1998-2008)

It is the post-black decade period, in which the country has experienced security stability. The province continued to increase its population at about the same pace as the previous phase, from 810 914 inhabitants in 1998 to 938 475 inhabitants in 2008, with an annual growth rate of 1.5%, which is roughly equal to the national annual rate of 1.6% for the same period. This increase is mainly due to births, but is considered weak compared to the population growth recorded between the years 1966 and 1987 due to the policy of birth control and birth spacing as well as the high age of marriage.

### Phase 5 (2008-2022)

This is the current period in which the mandate continues to increase at the same pace as the previous period. from 938475 in 2008 to 1155970 in 2022 at the same rate as the State's annual growth rate for the previous period of 1.6%, This stability is due to the continuation of the policy of birth control and birth spacing unemployment ", as well as the high age of marriage as a result of the high cost of living in this period and the unemployment and housing crisis.

## DISTRIBUTION OF THE PROVINCE POPULATION ACROSS MUNICIPALITIES

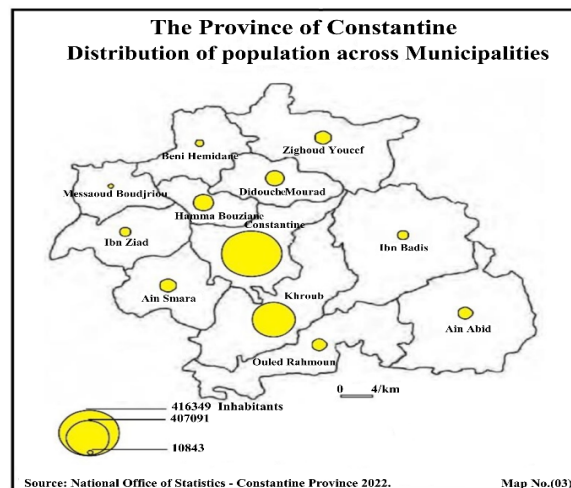
The population of the province of Constantine is unevenly spread across its municipalities, as there are municipalities in which the population is concentrated enormously and almost empty, as shown in table No. (03). This has affected negatively its field and has given it an unbalanced landscape where we find:

**Table 3.** Province of Constantine; Distribution of Population across Municipalities.

Municipalities	Population (Inhabitants)	Rate from the Whole Population of the Province (%)
Constantine	416349	32.48
El Khroub	407091	31.75
Hama Bouziane	125959	09.84
Didouche Mourad	68921	05.37
Ain Smara	66703	05.20
Ain Abid	42461	03.31
Zighoud Youcef	42234	03.29
Ouled Rahmoun	36317	02.83
Ibn Badis	28725	02.24
Ibn Ziad	24886	01.95
Beni hmidane	11415	0.89
MessaoudBoujeriou	10843	0.85
<b>Province</b>	<b>1155970</b>	<b>100</b>

Source: National Office of Statistics – Constantine Province 2022.

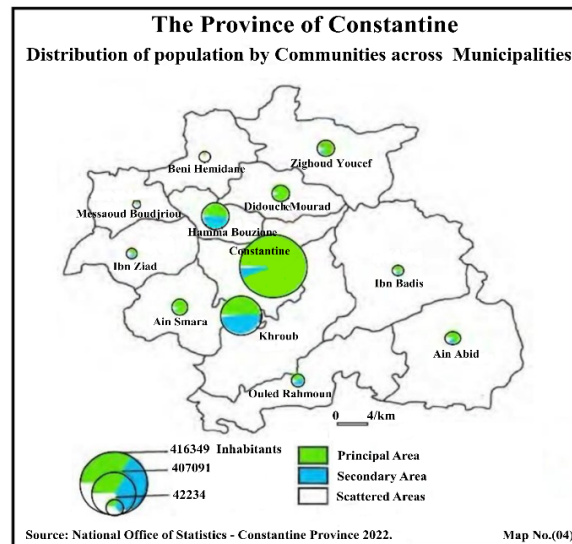
among the total population of the province, estimated at 1155 970 inhabitants in 2022, more than half are concentrated in the municipalities of Constantine and El Khroub at rates of 32.48% and 31.75% respectively; this large concentration in these municipalities is due to several reasons: The first is the province Center, as it contains the main city, in which the level of equipment and attraction is high; and the second is a totally neighboring municipality, which is the largest municipality which receives the population orientation of the province, through the new two cities of Ali Menjli and Massinissa, and the Urban Pole Ain Nhas; This has increased its population and made it the province second demographic pole just after Constantine. Followed by Hama Boziane Municipality at 09.84%; it is a suburb of the Center and an expansion area through its two large groupings, Hama Boziane and bekira, the municipalities of Didouche Mourad and Ain Samara, with rates of 05.37% and 05.20% respectively, are also considered suburbs of the center and areas of its urban expansion. The other municipalities, which are located in the periphery of the state, come after; they are marginalized and of a rural nature and have not attracted a large population. This distribution shows the imbalance in the field and the imbalance between a center characterized by an enormous population and, with a decrease as we head towards the province periphery, as shown in map No. (03).



**Map 3**

## DISTRIBUTION OF THE PROVINCE POPULATION BY GROUPING ACROSS MUNICIPALITIES

The province population is divided into major, secondary and scattered areas across its various municipalities, as shown in map No. (04) and table No. (04):



**Map 4**

**Table 4.** State of Constantine; Distribution of Population by Communities across Municipalities

Municipalities	Principal Area ACL		Secondary Area AS		Scattered Areas ZE	
	Number (Inh)	Rate (%)	Number (Inh)	Rate (%)	Number (Inh)	Rate (%)
Constantine	388786	93.38	22607	05.43	4954	01.19
Didouche Mourad	62587	90.81	2088	03.03	4246	06.16
Ain Smara	57798	86.65	4082	06.12	4823	07.23
Zighoud Youcef	34462	81.60	4413	10.45	3353	07.94
Ain Abid	30134	70.97	6318	14.88	6004	14.14
Ibn Badis	17660	61.48	5601	19.50	5463	19.02
Ibn Ziad	15262	61.33	5694	22.88	3929	15.79
Messaoud Boujeriou	6470	59.67	1806	16.66	2567	23.67
Hama Bouziane	66078	52.46	57185	45.40	2569	02.04
El Khroub	202935	49.85	194548	47.79	95.66	02.35
Ouled Rahmoun	15652	43.10	16292	44.86	4372	12.04
Beni Hmidane	3671	32.16	00	00	7744	67.84
<b>Province</b>	<b>883161</b>	<b>76.4</b>	<b>220790</b>	<b>19.10</b>	<b>25019</b>	<b>04.50</b>

Source: National Office of Statistics – Constantine Province 2022.

This distribution is dominated by the nature of principal areas, where more than 50% of the population of nine municipalities live in this type of grouping. These municipalities are : Constantine, Didouche Mourad, Ain Smara, Zighoud Youcef, Ain Abid, Ibn Badis, Ibn Ziad, Messaoud Boujeriou and Hama Boziane respectively; Only three municipalities whose inhabitants are divided between the main grouping, secondary and scattered areas, are: Al Khroub, Ouled Rahmoun and Beni Hmidane respectively, which is a characteristic of the province in general. It is considered an urban province par excellence, i.e., the urban population is the largest proportion, which has reached 76.4% on the level of the province.



## THE PROVINCE POPULATION DENSITY AND DISTRIBUTION ACROSS MUNICIPALITIES

There is a discrepancy in the distribution of population density among the municipalities of the province. This has had a negative impact on their field; as it appears municipalities with high population density and therefore suffer from demographic pressure and heaviness, whereas others are weak and semi-empty compared to the total density of the province, which is estimated at 503.20 inhabitants/km<sup>2</sup> in 2022. This is illustrated in Table No. (05), from which we find:

**Table 5.** Province of Constantine; Distribution of Population Density across Municipalities

Municipalities	Area (Km <sup>2</sup> )	Population (Inh)	Population Density (inh/km <sup>2</sup> )	Category
Constantine	183.00	416349	2275.13	Very High
Hama Bouziane	71.18	125959	1769.58	High
El Khroub	255.00	407091	1596.43	
Didouche Mourad	115.70	68921	595.69	Acceptable
Ain Smara	123.81	66703	538.75	
Ibn Ziad	150.77	24886	165.06	Weak
Zighoud Youcef	255.95	42234	165.00	
Ouled Rahmoun	269.95	36317	134.53	
Ain Abid	323.80	42461	131.13	
Messaoud Boujeriou	106.60	10843	101.71	Very Weak
Ibn Badis	310.42	28725	92.53	
Beni Hmidane	131.02	11415	87.12	
<b>Province</b>	<b>2297.20</b>	<b>1155970</b>	<b>503.20</b>	<b>/</b>

Source: National Office of Statistics – Constantine Province 2022.

### Very High Population Density

It consists of the municipality of Constantine with 2,275.13 inhabitants/km<sup>2</sup>, due to the fact that it is a center with the largest population at the province level and includes important equipment. This density shows the extent to which the center is saturated with the population, compared to its area and the demographic weight it suffers from.

### High Population Density

In the municipalities of Hama Boziane and El Khroub, 1769.58 inhabitants/km<sup>2</sup> and 1596.43 inhabitants/km<sup>2</sup> respectively, this is due to the fact that they are neighboring municipalities of the Main City (periphery) and also have important equipment and a large population after the Municipality of Constantine.

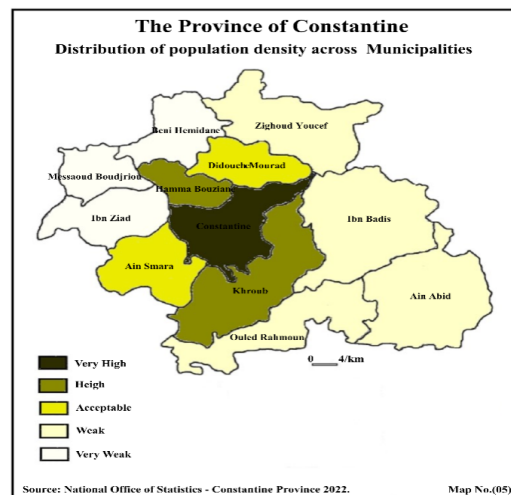
### Medium Population Density

In the municipalities: Didouche Mourad and Ain Smara, 595.69 inhabitants/km<sup>2</sup> and 538.75 inhabitants/km<sup>2</sup>, respectively, which is a medium and acceptable population density, compared to the province total population density; these municipalities are neighboring the Main City, and are peripheries of it.

### Poor Population Density

In the rest of the municipalities: Zighoud Youcef, Ibn Ziad, Ouled Rahmoun, Ain Abid, Messaoud Boujeriou, Beni Hmidane and Ibn Badis, which are weak compared to the total population of the province, these municipalities are the municipalities of the peripheries of the province, and far from the Centre. (almost empty compared to the rest of the municipalities), due to its low population as they are rural and marginalized municipalities, with no important equipment or attractions.

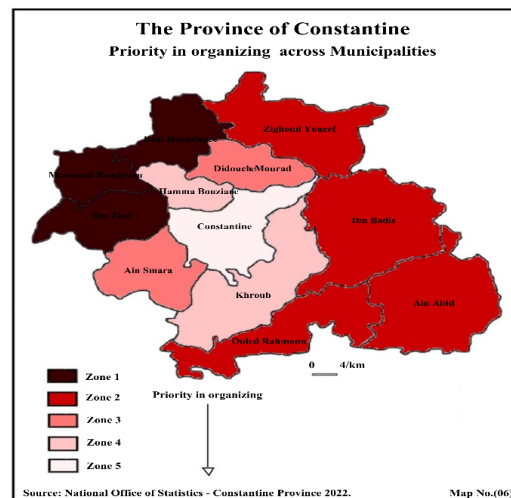
This distribution in density shows the imbalance in the field and the imbalance between a center characterized by demographic weight, which decreases and decreased as we head towards the province periphery as shown in map No.(05).



**Map 5**

## REORGANIZATION OF THE FIELD

Based on the map of the distribution of population density across the municipalities of the province of Constantine, which highlights the province field imbalance in the province of Constantine, In the light of which, we decided to elaborate a zoning map, to try to organize the Constantine's field, by giving some solutions that are consistent with each region and its specificities, to promote them, on the one hand, and eliminate or at least reduce the disparities between these regions and to achieve justice among them, on the other hand. This is to achieve a comprehensive and integrated field, especially in terms of population distribution. and, of course, poor and near-empty areas (map No. (06)).



**Map 6**

### Zone 1

It consists a part of the province, far from the Centre; it is characterized by being poor, marginalized, mainly rural in nature, lacking many equipment and structures, almost empty of the population, compared to the rest of the region, in addition to the neglect of the province authorities and the failure to give them the important attention they are giving to the Centre; It is composed of three municipalities: Messaoud Boujeriou, Beni Hmidane and Ibn Ziad. This region, as it suffers from all these problems, must be given some solutions to eliminate or at least reduce these problems. On the other hand, justice must be done between this region and the other regions, so that the field of Constantine province becomes complete and complementary, characterized by equity and balance between all its municipalities; these solutions consist in:

- The necessity of giving greater attention and focus to this area, by the province authorities, rather than other areas that have caused their marginalization, and to prioritize it in all programs, in order to operationalizing and revitalizing it, so that it rises to the level of other regions.



- Construction of roads to open up this area to other regions and municipalities;
- Granting this area significant projects to remove it from its isolation, thereby transforming it into attractive areas and creating a dynamic in it.
- The development of the existing equipment and infrastructure and the construction of new ones in line with the population's requirements and needs.
- Taking care of the real estate enclaves, located in this area and exploiting them in the programming of new cities in which the population of the province is redistributed, by relocating a group of them from the center to decompress it, taking into account the provision of all their requirements in these cities: equipment, services, work... etc. To be installed in this area and not moving to other areas.

## **Zone 2**

It represents the remaining part of the periphery of the province, which is predominated by a rural nature; It comprises a small population compared to the rest of the other municipalities, but it is slightly better than the former region, in terms of development. It is also neglected by the authorities, comprising four municipalities: Ibn Badis, Ouled Rahmoun, Ain Abid and Zighoud Youcef. Solutions must be provided in it; they consist in:

Divert the attention of the authorities to this area and prioritize it in all programs, for greater activation, thereby rising to the level of the center and periphery areas.

- Programming of large projects to make them attractive areas for the population.
- The exploitation of real estate enclaves, by setting up a group of new cities on them and relocating the population from the second area to reduce its high population density.

## **Zone 3**

It represents a part of the periphery of the province center, which is generally acceptable in terms of population concentration and various structures, and is more urbanized than the previous two regions; It has the attention of the authorities and is composed of two municipalities: Didouche Mourad and Ain Smara; this area, considered acceptable, does not suffer from pressure, as it does not need to be reorganized and must be preserved and its population development must be controlled in the future, with the preservation of the populations of its neighboring municipalities in their areas.

## **Zone 4**

It represents the remaining part of the periphery of the center of the province; It is characterized by its richness in structures and facilities, predominantly urban in nature, suffering from overpopulation (population density is high), as a result of the saturation achieved in terms of population and the authorities' policy of unloading the Centre as an area of expansion. It consists of two municipalities: El Khroub and Ain Smara. This area, as it suffers from problems, should be given some solutions, namely:

- The preservation of the various facilities and infrastructure in this area, and their follow-up with maintenance and habilitation of old roads and structures.
- The redistribution of the population in this area by unloading or relocating a group of inhabitants to the second area;
- The installation of the residents of the areas adjacent to this area in their places, to limit their movement, thereby eliminating the pressure on this area and its various facilities and equipment.

## **Zone 5**

It represents the Province center; It is very rich in structures and facilities, urban par excellence, but it suffers from a population saturation problem (population density is very high), as well as the movement of the population of most other areas, especially those adjacent to it, to meet their needs, which have increased pressure on it; it consists in: The municipality of Constantine, as it suffers from this problem, the population must be redistributed by unloading or relocating a group of inhabitants to the first zone, as it is a semi-empty area and also containing important real estate enclaves, on the one hand; and because the peripheries of the Centre are saturated with populations and must

also be discharged, on the other hand. there are others that are acceptable and does not necessitate unloading, all with the installation of the population of all other regions in their places, to limit their movement to this area and thereby decrease the pressure on it.

## SUMMARY

The inhabitants of the province of Constantine are spread unevenly across their municipalities. There are municipalities with an enormous population and others that are nearly empty, in a circular form, from the center of the province to its periphery. This has adversely affected its field and has given it an unbalanced picture. (The Centre has demographic pressure and weight and near-empty peripheries reflected in the province population density). Its field must therefore be reorganized, by focusing more on semi-empty municipalities, through their development and opening up, to make them population-attractive municipalities, with new established towns, to relocate populations from densely populated and highly populated municipalities and which suffer from pressure. (The center and a part of the peripheries), with the installation of the inhabitants of each area in their area.

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