SPATIAL DISPARITIES IN ALGERIA: THE ROLE OF PUBLIC POLICIES CASE STUDY PROVINCE OF BORDJ BOU ARRERIDJ

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Abstract:

The paper adopts a focused approach by examining the province of Bordj Bou Arréridj, shedding light on the persistent and multifaceted nature of inequalities that have endured despite post-independence developmental efforts. Methodologically, the study employs quantitative analysis to discern the interconnectedness of geographical variables influencing spatial disparities in the province. By utilizing statistical data collected from various directorates within Bordj Bou Arréridj, the research provides a comprehensive understanding of the region's development levels and disparities. The classification of municipalities into distinct developmental tiers—ranging from high to very low development—offers a clear visualization of these disparities and enables a nuanced assessment of the region's spatial inequality landscape. This approach highlights the key factors contributing to uneven development. Furthermore, the paper explores the social, economic, and political consequences of these disparities, enhancing its analytical depth and providing a holistic perspective on their ramifications. Such an analysis strengthens the paper's relevance, offering policymakers and researchers valuable insights into the broader implications of spatial disparities in Bordj Bou Arréridj.

Keywords: bordj bou arreridj province, spatial disparities, historical heritage, local development, public policies

1. INTRODUCTION

The issue of disparities has long been one of the primary concerns for specialists in regional development. One of the reasons for this interest lies in the fact that their persistence hinders development. From a social perspective, they also undermine national solidarity, quality of life, and equal opportunities (Simard Majella, 2015). Spatial disparities refer to geographical differences in living conditions, wealth levels, economic and social opportunities, as well as environmental conditions between different geographical areas (Fantous Amina, 2024). While spatial disparities form a fundamental feature of any space subject to mechanisms of unequal development, they take diverse forms that combine differently across space manifested as excessive centralization, growing polarization between affluent regions and disadvantaged areas, a center-periphery spatial organization, an urban-rural divide, or the coastal concentration of the economy (Belhadi Omar, 1999).

The Algerian territory is unbalanced, evident in the uneven distribution of development and population. This stems from an economic structure and social fabric shaped by exploitative resource extraction practices during the colonial period (Ojo Johnson and Yous, 2025). Based on this, the Algerian state defined and implemented a national territorial planning policy aimed primarily at achieving territorial equity (Benmohammed and Zatla, 2020). However, Algeria's spatial development has not followed a linear or homogeneous trajectory, varying according to the local specificities of each region (Lekhal, Abdelouahab. 2002). Several prior studies conducted in Algeria have demonstrated that spatial disparities result from the interaction of three main factors: natural factors, historical factors dating back to the colonial period, and political factors reflected in administrative divisions and the concentration of economic (particularly industrial) investments post-independence (Souad Brakchi, 2006, 2021; Marc Cote, 1999; Fantous Amina, 2024; Ojo Johnson Adelakun & Yous Karima, 2025; Sabéha Harrar, 2017, saifi zohier, 2023).

Bordj Bou Arreridj is one of Algeria's emerging provinces, established under the 1984 administrative division. Key characteristics include:

Diverse natural environments

The Algerian government's investment policies as implemented in the province

The misalignment between administrative boundaries and actual spatial dynamics

The objective of this study is to analyze the causes of spatial disparities and their implications in the province of Bordj Bou Arreridj, which serves as a model for this research.

2. MATERIALS AND METHODS

2.1. Description of the study area

The province of Bordj Bou Arreridj was established in accordance with Decree No. 84-09 on February 4, 1984, as part of the new administrative division implemented nationwide. It spans an area of approximately 3,934.48 km², representing 0.16% of the country's total land area. Administratively, it consists of the state capital, Bordj Bou Arreridj, along with 11 districts (dairas) and 23 municipalities.

Located in eastern Algeria, specifically in its western part, the state is traversed by National Highway No. 5. It is bordered by: Sétif Province to the east (see Map No. 01), M'sila Province to the south, Béjaïa Province to the north, Bouira Province to the west.

Geographical Features

Bordj Bou Arreridj lies between latitudes 35° and 37° N and longitudes 4° and 5° E (Greenwich meridian). It belongs to the Eastern High Plains region, surrounded by: The Tell Atlas mountain range to the north, The Maadid Mountains to the south, The Sétif Plains to the east

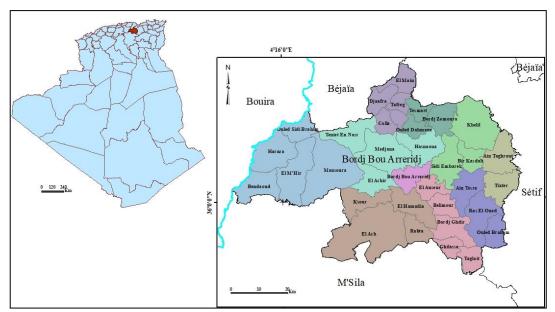


Figure 01: Localization of the study area in Algeria

(Source: author)

2.2. Methodology

Disparities can be analyzed in various forms, with the most evident being spatial inequalities. These stem from natural causes or result from human actions through territorial planning. In the latter case, they reflect political choices in the distribution of infrastructure (Sabéha Harrar, 2017). Within the framework of geographical research with a socio-economic focus, we believe it is useful at least initially to compare different indicators that reflect social groups, economic activities, and land use. Subsequently, typologies should be constructed by integrating these diverse indicators. While such typologies may not fully explain disparities or underlying dynamics, they can indeed provide a more synthesized overview of the issues under study (Bernadette Mérenne-Schoumaker, 1994). In this study we will use the cumulative frequency method. From which we will choose the classes according to breaks or thresholds in the statistical distribution curve depending on the shape of the statistical distribution. Respecting the principle of choice among these procedures guarantees a certain reliability or objectivity of the image of space (Souad Brakchi, 2021). 40 indicators were selected according to the data available at the National Bureau of Statistics and the province departments Distributed as follows: (Saifi Zohier, 2018)

A. Demographic Indicators:

Population size, Growth rate, Population density, Area, Natural increase, Net migration

B. Infrastructure and Service Indicators:

Number of primary schools, Number of middle schools, Number of secondary schools, Classroom occupancy rate (primary level), Classroom occupancy rate (middle level), Classroom occupancy rate (secondary level), Teacher-to-class ratio (primary level), Teacher-to-class ratio (middle level), Teacher-to-class ratio (secondary level), Number of doctors, Number of dentists, Number of pharmacies, Number of treatment rooms, Number of multi-service clinics, Inhabitants per health facility, Inhabitants per doctor, Inhabitants per dentist, Inhabitants per pharmacy, Inhabitants per post office, Inhabitants per landline telephone, Public lighting coverage rate, Natural gas coverage rate, Potable water coverage rate, Sanitation coverage rate,

C. Economic Indicators:

Total agricultural area, Actual cultivated area, Number of livestock heads, Agricultural production, Active workforce Employed population, Unemployed population, Dependency ratio, Inhabitants per commercial establishment, Inhabitants per km²

D. Methodology for Ranking Municipalities:

Indicator Ranking: Each municipality is ranked across all 40 indicators. For example, if the municipality of El Bordj has the highest population, it is ranked 1 for that indicator. This process is repeated for all indicators, resulting in Table (01). Frequency of Rankings: A table is then created to show how often each municipality ranks in a specific position (e.g., how many times El Bordj ranks 1st out of 34 municipalities). Composite Score: Municipalities are classified based on their total ranking scores, from the lowest (best) to the highest (worst) points Table (02)Development Disparity Map: The data is visualized on a development level map (or inter-municipal development disparities map). Based on our analysis, the results are presented in Map (figure 2) and Table (3)

Table 3. Municipalities typology

Source: author

Municipalities	Municipalities Typology						
B.B. arreridj, Ras el oued, B. Ghedir, Medjana, Manssoura	Municipalities with strong economic preponderance						
El achir, khlil, El M'hir, Hasnaoua, B. zamoura, S.embarek,							
B.K.Ali, EL.hamadia, Ain Tagrout, T.En nasr, Djaafra, Belmour	Medium-development municipalities						
EL.Anseur							
Ksour, A.Tesra, Ben Daoud, Tixter, El Ach, Ghilassa, El Main,	Mi-i1i4ii4h 1 d1						
O.Dahmane, Tssameurt, Tefreg	Municipalities with low development						
O. Brahem, Rabta, Tagl 4º10'0"E 4º35'0"E	5°0'0"E pendent						

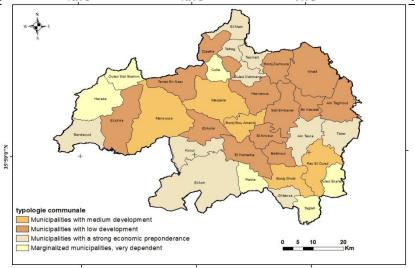


Figure 2. The province of el bordj: municipal typology (Source: author)

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Table 1. Distribution of the ranks of municipalities according to each of the twenty-seven indicators

(Source: Saifi, 2018)

municipalities	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
B.B. Arreridj	01	03	01	01	01	01	01	01	01	34	28	11	34	15	06	01	01	01	02	01	17	14	04	02	33	02	27	01	04	01	19	13	12	08	01	01	01	04	01	01
Ras el oued	02	17	03	02	02	09	03	02	02	27	19	07	27	18	03	02	02	02	03	02	21	03	05	06	24	03	11	07	09	02	12	09	08	05	02	02	02	19	03	08
B. zamoura	16	31	15	11	11	32	07	05	06	11	11	15	11	10	18	08	08	14	19	03	10	07	11	15	27	11	12	15	13	03	24	21	17	21	13	12	12	17	06	21
Manssoura	06	19	29	06	06	20	04	11	07	12	18	09	15	24	14	07	09	05	04	04	09	15	17	17	21	06	18	10	21	19	02	07	15	14	04	03	09	05	10	12
El M'hir	11	14	24	13	13	13	12	06	08	29	20	18	24	30	09	05	10	09	09	05	14	05	15	10	09	17	20	09	29	26	04	05	27	17	14	13	13	21	08	18
Ben Daoud	13	23	17	14	14	23	10	23	19	17	34	19	06	34	20	17	19	26	06	09	25	23	24	27	30	34	26	16	24	31	14	10	06	12	34	07	25	02	28	09
El achir	08	06	07	12	12	04	14	07	09	30	29	17	29	25	13	09	06	06	20	10	26	18	01	07	19	15	15	06	11	17	13	12	13	11	11	09	15	11	07	04
Taglait	18	09	21	19	19	11	18	12	10	20	25	10	20	20	16	12	14	15	27	11	34	12	16	14	26	18	16	08	02	20	09	06	21	07	23	19	29	07	09	25
B. Ghedir	04	18	05	05	05	16	06	03	03	15	15	12	17	08	07	04	03	03	10	06	22	06	10	08	34	04	21	17	07	15	23	24	04	25	03	05	03	27	04	12
S.embarek	22	12	28	21	21	14	25	24	11	25	33	03	32	14	01	13	11	16	21	12	02	10	8	11	10	08	24	03	15	10	17	14	10	06	19	21	26	16	11	24
EL.hamadia	05	07	09	07	07	03	05	08	04	21	27	06	23	31	02	10	15	07	11	13	20	20	21	12	22	21	29	13	22	28	08	08	03	09	05	10	10	25	12	13
Beilmour	21	08	10	24	24	10	30	13	20	31	24	20	30	22	21	14	20	10	33	14	19	11	20	04	11	09	01	18	01	04	25	18	14	19	17	26	22	20	02	22
Medjana	09	16	25	10	10	15	08	09	05	19	22	05	21	17	08	03	04	11	28	07	18	02	06	01	12	05	31	04	17	14	01	01	01	01	10	08	16	06	13	28
T. En Nasr	28	33	30	18	18	33	15	25	12	01	08	08	02	28	17	18	16	18	12	08	27	09	07	18	07	16	02	19	25	21	15	29	20	22	22	16	31	09	16	05
Djaafra	23	32	12	15	15	34	16	14	13	07	05	02	07	13	04	26	17	19	07	15	03	30	13	22	06	28	03	20	05	23	18	30	30	27	15	17	08	29	21	29
El Main	29	27	22	28	28	22	31	26	14	13	06	01	13	05	05	31	26	27	34	16	33	33	26	28	04	29	04	21	12	07	26	19	32	30	26	31	18	32	26	31
O. Brahem	27	15	20	27	27	19	26	27	21	14	30	21	09	26	11	27	27	28	22	17	30	25	27	29	16	31	34	22	03	22	27	20	09	18	30	30	27	28	30	19
O. Dahmane	12	13	02	03	03	12	11	15	22	33	32	22	25	29	22	19	21	17	23	18	13	26	25	19	31	32	33	23	32	29	28	31	18	28	16	14	11	26	19	06
Hasnaoua	07	10	14	09	09	07	09	16	15	22	31	04	16	16	12	15	07	12	13	19	28	21	12	16	15	20	14	24	31	30	06	11	07	16	09	06	28	03	20	03
Khlil	03	20	19	04	04	24	02	04	16	26	16	14	19	27	19	06	12	04	01	20	12	17	18	09	17	23	25	11	28	24	05	02	22	04	06	04	04	30	18	10
Taglait	32	28	27	31	31	25	32	28	23	10	07	23	14	06	23	34	22	29	24	21	04	31	14	30	08	19	05	25	19	27	33	32	11	31	29	33	20	34	27	17
ksour	15	24	16	16	16	27	13	17	24	06	23	24	04	09	24	21	23	20	25	22	31	28	23	25	28	24	19	26	30	25	16	25	19	23	12	15	14	24	29	16
O.S. Brahim	33	25	33	34	34	17	33	29	25	03	02	25	05	11	25	28	28	30	29	23	06	04	28	31	01	27	32	27	33	13	03	27	34	34	33	34	34	12	32	33
Tefreg	34	34	34	32	32	30	34	30	26	02	01	26	03	01	26	22	24	31	30	24	01	01	02	32	05	01	06	28	16	16	30	26	31	32	32	32	33	31	25	34
Colla	26	29	11	22	22	29	21	31	27	09	14	27	10	12	27	29	29	32	14	25	16	27	29	33	18	07	22	29	20	08	31	33	29	26	27	25	24	22	17	30
Tixter	24	01	23	33	33	02	22	32	28	18	21	28	28	21	28	30	30	21	15	26	15	29	30	21	20	25	07	12	27	09	10	04	33	02	20	23	21	01	22	26
EL.ach	10	22	31	08	08	26	07	18	29	16	17	29	18	03	29	32	18	22	08	27	29	34	19	26	32	26	30	30	23	34	11	22	02	15	07	11	05	23	33	23
El Anseur	17	04	08	23	23	06	23	19	17	32	09	16	33	23	15	11	31	13	31	28	24	08	31	05	13	10	23	02	10	06	22	17	23	10	24	20	30	08	25	07
Tassameurt	31	30	18	29	29	28	19	20	30	04	03	30	01	02	30	33	32	33	16	29	05	32	32	13	03	12	13	31	18	18	34	34	28	33	25	27	19	13	15	20
A. Tesra	25	21	26	20	20	18	27	10	31	23	13	31	22	04	31	23	33	23	04	30	07	22	33	20	02	22	28	14	14	11	07	03	24	03	21	22	23	18	14	27
B.K.Ali	14	11	06	17	17	31	28	21	18	28	12	13	31	19	10	16	05	08	32	31	11	16	03	03	29	14	08	05	06	12	21	16	26	13	08	18	06	14	05	14
Ghilassa	19	02	04	26	26	05	29	22	32	05	10	32	08	07	32	20	25	24	17	32	23	19	22	24	25	13	17	32	08	05	32	28	16	29	28	29	17	33	24	11
Rabta	20	05	13	25	25	08	24	33	33	24	26	33	26	33	33	24	13	25	26	33	32	24	09	23	23	30	09	33	26	32	29	23	05	24	18	24	07	15	31	15
Haraza	30	26	32	30	30	21	20	34	34	08	04	34	12	32	34	25	34	34	18	34	08	13	34	34	14	33	10	34	34	33	20	15	25	20	31	28	32	10	34	32

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Table 2. Repeated rows for municipalities (source: Saifi, 2018)

Municipalities	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	Totale ranks
Ras el oued		12	07		02	01	03	02	03		01	01					01	01	02		01			01			02								320
B.B. Arreridj	18	03	01	03		01		01			01	01	01	01	01		01		01	01							01	01					01	02	330
B. Ghedir		01	06	05	03	03	02	02		02		02			03	01	03	01			01	01	01	01			01							01	428
Medjana	05	01	01	03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01						441
Manssoura		02	01	04	02	03	03		04	02	01	01		02	03		02	02	02	01	02			01			01	01	01		01				474
El achir	01			02		04	04	01	03	01	04	02	03	01	03		02	02	01	01					01	01			02	01					520
Khlil	01	02	02	06	01	02			01	01	01	01	01	01		02	02	02	03	02		01	01	02	01	01	01	01		01					549
El M'hir				01	05	01		02	05	02	01	01	04	03	01		02	02		02	01			02		01	01		02	01					563
Hasnaoua			02	01		02	04		03	02	01	03	01	02	03	05			01	02	01	01		01				02		01	02				564
B. zamoura			02		01	02	01	02		02	06	03	02	01	04	01	03	01	02		03			01			01				01	01			568
S. embarek	01	01	02			01		03		04	04	02	01	03	01	02	01		01		03	01		03	02	01		01				01	01		611
B.K.Ali			02		03	03		03		01	02	02	02	04		03	01	02	01		01					01		03			03				627
EL.hamadia		01	02	01	03	01	03	03	02	03	01	03	03		01					02	03	02	01		01		01	01	01			02	01		637
Aïn Taghrout		01	02		01	02	02		02	02	05	02	01	03	02	03		02		01	01		01	01			01	01	01						640
T. En Nasr	01	01	03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01							675
Djaafra						01		03		04	04	02	01	03	01	02	01		01		03	01		03	02	01		01							687
Beilmour											01		03		04	04	02	01	03	01	02	01		01		03	01		03	02	01		01		688
El Anseur		01		01	01	02	01	03	01	03	01		02		01	01	03		01	01		01	05	02	01	01		01	01	03	01	01			698
ksour												01		03		04	04	02	01	03	01	02	01		01		03	01		03	02	01		01	745
A. Tesra							03	02	01	03	01	02	03	05			01	02	01	01		01				02									764
Ben Daoud			03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01							778
Tixter	02	02		01			01		01	01		01			03			01		02	05	02	02	01	01	02	01	04	01	03		01	02		803
EL.ach			03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01							806
Ghilassa		01		01	03		01	02		01	01		01			01	03		02	01		02	01	03	02	01		02	03			06	01	01	820
El Main										02	01	02		02	06	03	02	01	04	01	03	01	02		03										834
O. Dahmane		01	01			01					02	02	02	01	01	01	01	02	03		01	03	02		02	02		02	02		02	03	03		844
Tassameurt	01	01	03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01							875
Tefreg	05	02	01		01	01											01						01	01	03		04		01	04	03	05	01	05	880
O. Brahem				01	01	03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01				911
Rabta								03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01			914
Taglait											02	01	02		02	06	03	02	01	04	01	03	01	02		03									915
Colla				01	01	03	03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01				935
O.S. Brahim											03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		937
Haraza						03	02	01		04	02	01	01		02	03		02	02	02	01	02			01			01		01					996

3. RESULTS AND DISCUSSION

According to the results of (Table 3) and (figure 2), we note four levels of development for the municipalities of the province of B.B.Arreridj The first category represents a good level of development and includes 05 municipalities. The second categories include 13 municipalities: The third category includes 10 municipalities. The fourth category includes 06 municipalities. The results reached indicate spatial variations that suggest an imbalance among the municipalities. What are the reasons for this?

3.1. Natural Cause

3.1.1. Variation in terrain distribution

According to the data in Table No. (04) And figure No. (03), the state of Bordj consists of three natural regions: The High Plains Region, covering 30% of the state's area, forms a corridor extending from east to west, occupying the center of the state. These plains are characterized by complete flatness, interspersed with a series of wide valleys in the east and narrow ones in the west, along with scattered mountainous masses.

The Northern Mountainous Region consists of two mountain ranges:

The Setif Mountains, comprising three medium-height peaks:

Mount Tafrat in the far northeast, reaching 1,613 m, Mount Zemmoura, with an elevation of 1,503 m, Mount Bounedah, standing at 1,364 m, Mount Oum Rassoul, rising to 1,500 m.

The Biban Mountains made up of four massifs:

Mount Methnan, at 1,700 m, Mount M'zita, with a height of 1,460 m, Mount Ouennougha, approximately 1,352 m, Mount Chekchout, the highest at 1,850 m.

The Southern Mountainous Region is dominated by the Hodna Mountains, covering the southern part of the state. It includes:

Mount Aïch El Thalj (Snow Nest Mountain), at 1,875 m, Mount M'zita, reaching 1,554 m, Mount Sidi Sahbi, with an elevation of 1,869 m.

Table No. (04): "Major Regions of Bordj Bou Arréridj Province

Region	Areas	Area (ha)	%
High	Briaginian High	120,008	30
Plains	Plains		
Sétif	Jafra and Zemmora	95,577	25
Mountains	Mountains		
Biban	Biban Mountains	105,305	27
Mountains			
Hodna	Hodna Mountains	72,558	18
Mountains			
Total	-	393,448	100

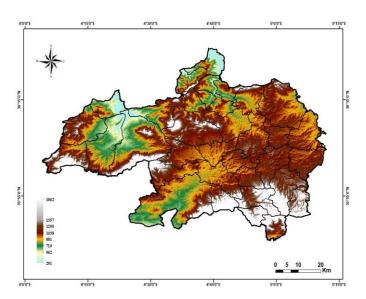


Figure3. Province of el bordj Landforms (source: author)



Figure 4. The plain area of Ras El Oued Municipality



Figure 5. The mountainous region of Mansoura Municipality

1.1.1. Climate Characteristics (Variety and differences in distribution)

The study area is predominantly semi-arid, with mountainous regions experiencing a humid climate and warm winters, while the plains have a semi-arid climate with warm winters (Mebarki azadine, 2005). Precipitation ranges between 400 mm and 1,000 mm in the northern mountainous region, compared to the plains, which receive less than 400 mm. There is also a notable contrast in the western Hodna massif, where rainfall is below 200 mm, placing it within the steppe region (Mihoubi houria, 2015).

1.1.1. Water Resources

The area has significant but unevenly distributed water resources: Surface water:

Approximately 300 hm³ (hectometer cubic).

Groundwater: Estimated at 67.01 hm³/year, with utilization as follows:

Northern Mountainous Region: 7.2 hm³. Plains Region: 18.1 hm³. Southern Mountainous Region (Hodna

Mountains): 34.1 hm³ (Saïfi zohier, 2018).

Water Deficit

The drinking water deficit is estimated as follows:

Plains Region: 4,355.97 – 117.64 m³/day.

Northern Mountainous Region: 5,236.9 – 9.28 m³/day. Southern Mountainous Region: 1,642.04 – 42.62 m³/day.

1.2. The historical reasons

1.2.1. French colonialism and the formation of foreign capital

The relationship between the French colonizer and the Algerians had been strained since the colonizer took over the land (the capital of the Algerians by more than 70%), which was enriched by the Algerians and redistributed to the settlers, forcing many Algerians to migrate to mountains, desert or abroad. The confiscation of 273,000 hectares between 1848-1950 led to a violent collapse in the economic and social construction of the Algerians, which will affect the basic needs of the population for food and spread poverty, unemployment and increase migration to cities or abroad (Djilali Tekrane, 2017) The official settlement policy was accompanied by facilitation for land ownership through companies operating in the economic sector, and banks that were established with branches in Algeria to facilitate financial transactions. They provided loans to settlers with reduced interest rates to encourage them to settle and remain in Algeria. This policy is known as capitalist settlemen (Mohammed Chagra, 2024). As for the craft sector, its role declined in favor of the industrial units that appeared in Algeria, mostly affiliated with the colonizers or the large French institutions in the form of branches belonging to it. France made Algeria an important source for its various needs, whether raw materials or agricultural products. The goal of production was generally determined according to the requirements of the French economy and the needs of the European market. This long period of occupation drew new features for the Algerian state, where a radical transformation took place in the state of the economy by creating a dual economic sector and the separation of the modern sector belonging to the Europeans from Algerian agriculture. And the production wheel was controlled by the European market demands, not the local markets (Mostafaoui and Moufid, 2018)

1.2.2. French Administrative Divisions and the Creation of Useful Areas

During the French colonial period, Algeria underwent radical changes in its territorial organization over 132 years. On the social level, the foundational structure of society—the tribe—was dismantled through the Senatus Consultum law. Established on April 22, 1863, this law aimed to replace tribes with douars (small rural settlements). A douar was a traditional rural community that originally belonged to one of the tribes.(raham, djamel, 2001). The implementation of the "Sénatus consulte" law in 1863 resulted in radical changes to the structure of tribes and major clans. They were fragmented and transformed into small administrative units called "douar-communes" 656 "douars" were established in the three Algerian provinces at the expense of dismantling the tribes, with the aim of bypassing any barriers that could impede the transfer of land ownership from the locals to the settlers. It also aimed to tighten control over the population and monitor them (Boukrou Nacer, 2025)

At the Level of El Bordj Province, As indicated on Map No., 34 douars (small villages) were established from 19 tribes. Some tribes were divided into multiple douars, such as the Beni Yadel tribe, which was split into

four douars, while others were divided into a single douar, like the Oulad El-Taïr tribe. During this phase, the national territory was divided into two types of municipalities:

Full-Exercise Municipalities (Communes de Pleine Exercice - C.P.E.) – Located in rich and fertile regions, these followed the same laws as French municipalities and were governed by a mayor. They were established in 1866. Mixed Municipalities (Communes Mixtes) – Established in 1868, these had a weak French presence and were predominantly populated by Algerian natives. They covered vast areas. According to the aforementioned division, the study area consisted of two mixed municipalities:

El-Maâdid Municipality, with an estimated area of 1,942.97 km² and a population of 59,211.

Biban Municipality, with an estimated area of 2,150.30 km².

In 1956–1958, administrative and political reforms led to a reorganization of the territorial divisions. The mixed municipalities and full-exercise municipalities were abolished and replaced with municipalities of varying (often smaller) population sizes. However, the douar unit retained its original administrative boundaries. Meanwhile, the settlers remained concentrated in the former full-exercise municipalities, which represented the most economically useful areas

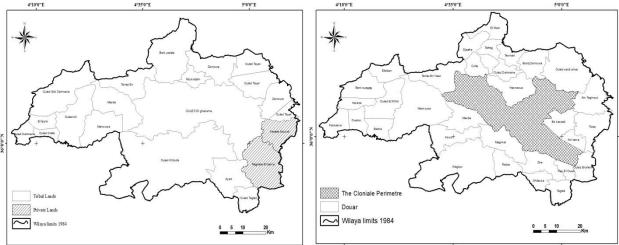


Figure 6. The province of el bordj division of tribes

Figure 7. The province of el bordj the Douar and the municipalities (Source: author)

1.3. Algerian Development Policy

After gaining independence in 1962, Algeria was faced with numerous challenges as they began to establish themselves as a nation. These challenges included high unemployment rates, economic instability, and a signicant amount of debt. The country had inherited an economic structure and social fabric characterised by exploitative practices and resource extraction during the colonial period (Ojo Johnson Adelakun & Yous Karima, 2025). Based on this Algeria took a series of measures to overcome the crisis. Among the tools it relied on to restore territorial balance, we address the following:

1.3.1. Problem of Administrative Division after Independence

In Algeria, the administrative division has always been an essential element in the strategy of the public authorities to reduce regional and local distortions. Immediately after independence, in 1962, the Algerian territory was marked by serious spatial disparities that the State tried to reduce. This resulted in the reconsideration of the territorial network, with the advent of four successive administrative divisions (1963, 1974, 1984 and 1997) applied in different political and socio-economic contexts (Bakour and Baouni, 2017). La promotion administrative, telle qu'elle a été initiée en Algérie depuis 1963, est un facteur déterminant dans la croissance économique, démographique et spatiale des agglomérations. Cependant, les choix opérés pour ériger tel ou tel espace, telle ou telle ville, méritent davantage de réflexions et d'études préalables (Layeb Hafid, 1999) In the province of bordj, it can be said that all the municipalities of a good and medium level of development are old ones established in the French era. They represent old areas of reconstruction in addition to their geographical location located within the plains and hills. They have benefited since ancient times from some services and equipment, especially roads, health and educational facilities, in addition to the development of the agricultural sector. On the other hand, we note that most of the modern municipalities that were established in

1984 have weak and a very low level of development, either located in the northern mountainous side or in the hilly area on the outskirts of the state in marginal border areas. The local development in the province was concentrated in the old municipalities. Although all municipalities have benefited from local development programs, modern ones are still far from the level of development achieved by the old and large municipalities that play a geographical and economic role.

Le schéma d'organisation générale de la wilaya fait apparaître une polarisation totale sur la ville de Bordj : position centrale du chef-lieu, carrefour de voies de communication, forte concentration des activités, équipements et commerces. Elle a été renforcée par la promotion administrative de 1984. Ainsi, le chef-lieu assure un rôle de commandement régional sans partage. Trois paramètres révèlent ce déséquilibre:- le fort déficit en agglomérations dans la strate comprise entre 7 000 et 30 000 habitants, en plus de la faiblesse du taux d'urbanisation de la wilaya. Ce hiatus des agglomérations intermédiaires, dans un espace fortement rural, entraîne un court-circuit des flux.- l'inégale répartition spatiale des investissements publics au cours des différents plans nationaux :32% pour le chef-lieu de wilaya, contre 13% pour le reste des agglomérations urbaines et 3% seulement pour les agglomérations rurales.- enfin, le chef-lieu de wilaya dispose d'une importante zone industrielle et concentre l'ensemble des équipements et services, ce qui déclenche un puissant flux spontané, sur longue et courte distance (Layeb Hafid, 1999)

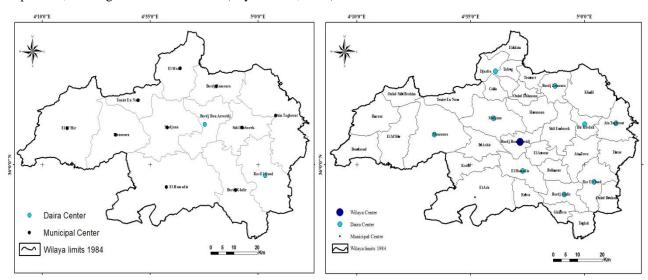


Figure 8. Administrative division of 1963 and 1974 **Figure 9.** Administrative divisions of 1984 (Source: author)

1.3.2. Distribution of Investments

In order to face the risks of exacerbating the inherited and expected differences, the operations of rebalancing spatial were urgently initiated through launching spatial programs for the benefit of the most deprived regions within the framework of the policy then called the Regional Balance Policy(Saifi Zohier, 2018). As a result, Algeria entered a phase of profound transformations driven by significant development efforts across all sectors, including local development. The state has prioritized this sector since independence as part of a policy aimed at achieving regional and territorial balance. The government remains the primary actor in local development in Algeria through direct intervention via a series of plans, the most important of which is The Municipal Development Plan (PCD). The PCD is the state's most widely used decentralized management program since 1974, focusing on development investments for municipalities within the framework of national development guidelines and financial laws. These investments are funded by the state through its annual equipment budget (Saifi Zohier, 2018). Since 2001, Algeria has pursued an unprecedented expansionary fiscal policy, particularly in terms of financial resources allocated, thanks to increased external revenues resulting from relatively stable oil prices. This was implemented through public investment programs carried out or underway between 2001 and 2014, including:

Economic Recovery Support Program (PSRE) or the 2001-2004 Triennial Plan, Initial budget: 525 billion DZD (~7 billion USD), Final budget: 1,216 billion DZD (~16 billion USD) after adding new projects and

reassessing existing ones. Complementary Growth Support Program (PCSC) 2005-2009, Initial allocation: 8,705 billion DZD (~114 billion USD), including the previous program's budget (1,216 billion DZD) and additional funds for initiatives like the Southern and High Plateaus Programs, Fragile Housing Absorption Program, and local complementary programs. Final budget upon completion (2009): 9,680 billion DZD (~130 billion USD) after re-evaluations and additional financing. Economic Growth Consolidation Program (PCCE) or the First Five-Year Plan 2010-2014.

Total financial envelope: 21,214 billion DZD (~286 billion USD), including the previous program's budget (9,680 billion DZD). New allocation: 11,534 billion DZD (~155 billion USD).

Local development in Algeria is characterized by imbalances and a failure to meet its intended objectives. This stems from the disconnect between the roles and responsibilities assigned to municipalities and the financial and human resources at their disposal, as well as an uneven administrative division that did not account for economic and developmental criteria necessary to achieve regional equilibrium. (chouaouche abd kader, 2014)

Table 5.Distribution of Government Investment by Geographic Region in Bordj Bou Arréridj Province (1999-2014)"

	The Norther	n Mountainous	The Co	entral Plains	The Southe	rn Mountainous
	Re	egion	I	Region	F	Region
	N .of	Financial	N .of	Financial	N .of	Financial
	Projects	Envelope	Projects	Envelope	Projects	Envelope
M.D.P (1999-2006)	1119	2.746.750	600	1.942.539	513	1.208.711
Municipal Development Plans						
E.R.S.P (2001-2003)	158	313.350	82	230.600	87	177.050
Economic Recovery Support Program						
C.G.S.P (2005-2009)	723	2.618.073	305	1.627.482	295	1.149.790
Complementary Growth Support Program						
P.D.P (2006-2009)	-	-	113	654.589	50	145.411
Plateau Development Program						
F.F.Y.P (2010-2014)	653	4.063.189	379	3.238.898	281	2.160.922
The First Five-Year Plan						
R. R.P (2005-2014)	253	611.618.295	56	162.802.308	90	226.049.422
Rural Renewal Program						
Total	2906	621.359.657	1535	170.496.416	1316	229.891.306

Source: author

Based on Table No. (05), six programs were allocated, including one program dedicated to agricultural development, while the remaining programs were allocated for the development of infrastructure and basic structures. These programs differ in terms of duration and financial allocation, with the largest financial allocation being the first five-year program (2010–2014) at 1,000,470,025 DZD, equivalent to 7,640.698 million USD. Regarding geographical distribution, the Northern Mountainous Region ranks first among all regions, with 2,906 projects worth 621,359,657 DZD, accounting for 60.81%. The Southern Mountainous Region comes in second, with 1,316 projects worth 229,891,306 DZD, representing 22.49%. The Plains Region ranks third, with 1,535 projects worth 170,496,416 DZD, making up 16.68%. This distribution of investment values and project numbers confirms the local development trends in Bordj Bou Arréridj Province, which prioritize the development of rural mountainous areas. These areas comprise 24 out of 34 municipalities, aiming to: Reduce isolation, Provide essential services, Limit rural migration, and Establish basic infrastructure, this approach is based on a geographical strategy that considers the potential of each region.

Each of represents, Committee for Location Assistance, Property Regulation, and Investment Promotion (c.l.a.p.r.i.p), National Investment Development Agency (n.i.d.a), National Agency for Microcredit Management (n.a.m.m), National Unemployment Insurance Fund (n.u.i.f), Governmental institutions responsible for financing private sector investment projects according to each institution's terms. From table No. (06), we observe that the central plain region ranks first in terms of the number of projects, estimated at 4,475 projects, with a financial envelope of 524,974,812 DZD, representing 54.30%. In second place is the northern mountainous region, with 3,293 projects valued at 280,646,368 DZD, accounting for 29.03%. The southern mountainous region comes in third, with 1,470 projects worth 161,044,147 DZD, representing 16.65%. This distribution reflects the concentration of private investment in the central plain region due to the advantages it offers. The flat terrain and absence of natural obstacles have led to a well-developed road network, facilitating marketing operations and

ease of access. Additionally, most services—such as large markets, hotels, restaurants, and local administrations—are concentrated in this area.

Table 6. Distribution of State-Funded Projects for the Private Sector in Bordj Bou Arréridj Province (2011-2015)

		rn Mountainous egion		ntral Plains egion		n Mountainous gion
	N .of Projects	Financial Envelope 10 ³	N .of Projects	Financial Envelope 10 ³	N .of Projects	Financial Envelope 10 ³
C.L.A.P.R.I.P	76	24825	516	592.999	179	70314
N.I.D.A	220	7609	561	46.684	142	6535
N.A.M.M	2960	183.363.268	3264	197.080.152	1117	77.843.703
N.U.I.F	37	97.250.666	134	327.847.384	32	83.123.595
Total	3293	280.646.368	4475	524.974.812	1470	161.044.147

Source: author

1.3.3. Governance and Local Communities in Algeria

Following the political and economic transformations of the 1990s, Algeria prioritized the governance of local communities and the establishment of an effective local investment policy as a key driver of economic development.

However, achieving these goals requires a strong and capable administrative framework, particularly through Local Authorities. Despite the legal and regulatory powers granted to these entities in local development and investment promotion, their performance remains inadequate, marked by significant shortcomings. This reflects the broader failure of development policies since independence, which can be attributed to several key factors: Mismatch between Authority and Resources: Local Authorities lack the necessary resources to fulfill their legally mandated development roles.

Inadequate Technical and Professional Oversight: Weak supervisory mechanisms hinder effective governance at the local level.

Excessive Centralized Control: Overbearing interference from higher authorities undermines the autonomy and efficiency of Local Authorities.

Decision-Making Dependence: Local Authorities often defer to central guardianship due to an inability to make independent decisions.

Economic Transition Challenges: Market liberalization and economic restructuring have outpaced the capacity of local administrations to adapt.

Ineffective Investment Strategies: Declining public investment and limited private sector engagement further constrain local development efforts.

2. The repercussions of territorial disparities on Bordj Bou Arréridj Province

2.1. Population Distribution and Density

The population density in Bordj Bou Arréridj Province is unevenly distributed, with the highest density found in the plains, particularly in the central municipality of Bordj Bou Arréridj (2,370 in hab./km²). The density gradually decreases toward the northern mountainous region (94 in hab./km²) and the southern mountainous region (31 in hab./km²). Despite a recent slight increase in population density across all municipalities, this distribution remains heavily influenced by natural and economic factors. The plain areas, characterized by accessible services, infrastructure, and transportation, attract higher population densities, while mountainous regions suffer from lower densities due to the lack of services and infrastructure, making them less attractive for settlement.

2.2. Emergence of Population-Repelling Areas

Migration poses a major challenge to local development in the study area, particularly in the northern and southern mountainous zones. This long-standing phenomenon has worsened over time: while only 10 mountainous municipalities were classified as population-repelling in the 1966 census, the number rose to 18 by 1998. Currently, out of 24 mountainous municipalities, 22 are repelling populations (15 in the northern zone and 6 in the southern zone). The primary drivers of migration include unemployment, limited access to healthcare

and education, geographical isolation, distance from the provincial center, and harsh living conditions. Despite local authorities' efforts to stabilize the population, the trend persists.

2.3. Uneven Distribution of Unemployment and Employment

In 2008, unemployment rates were exceptionally high, particularly in mountainous areas. The municipality of Rabta recorded a rate of 48.35%, while Théniet El Nasr had the lowest rate at 24.08%. In plains regions, unemployment ranged between 39.57% and 26.06%. Notably, unemployment rates increase with distance from the plains, peaking in the northern and southern border municipalities. Conversely, employment rates vary across municipalities, ranging from 22.85% to 6.86% in mountainous areas and 22.76% to 10.82% in the plains. This disparity highlights how high unemployment reduces job opportunities, reflecting the crisis in mountainous regions.

2.4. Industrial Concentration in the Plains

Bordj Bou Arréridj Province is a leading industrial hub nationally and internationally, especially in private-sector products like "Condor", which specializes in electronics and home appliances. The province hosts 421 private industrial units and 6 public ones, but their distribution is uneven across its three natural regions. The municipality of Bordj alone has 252 industrial units (59.85%), including 37 in electronics. Meanwhile, the northern mountainous area has 57 units spread across 8 municipalities, mostly in construction materials, and the southern mountainous area has 44 units across 4 municipalities, also dominated by construction. Thus, industrial activity is heavily concentrated in the plains, particularly in Bordj and surrounding areas.

2.5. Unequal Distribution of Services and Infrastructure

The distribution of services and infrastructure in the study area is highly imbalanced, especially in healthcare and education, which are concentrated in the plains. For example: Healthcare: There are 378 clinics in the plains, compared to 256 in the northern mountains and 173 in the south. Pharmacies: 116 in the plains, versus 41 in the north and 30 in the south. Educational Institutions: High schools: 21 in the plains, compared to 17 in the north and 14 in the south. Middle schools: 70 in the plains, versus 25 in the north and 26 in the south. Additionally, the University of Bordj is located in the municipality of Bordj, while commercial activities are centered in the plains due to private-sector density and trade mobility.

CONCLUSION

Through the study of territorial disparities in Bordj Bou Arréridj Province, we concluded the following:

The level of development in the plain area far exceeds that of other northern and southern mountainous municipalities.

The plain area has success factors compared to other regions and can be further developed in the future, especially the agricultural sector.

Widespread mountainous areas cover 70% of the province's area, but they face significant obstacles and limited potential.

Despite the state's attention to mountainous areas, they still lag behind the plain region in terms of development levels.

Mountainous areas have long been in crisis, as they are marginalized and isolated.

Mountainous regions are driving away residents due to the lack of infrastructure and facilities.

Territorial disparities in Bordj Bou Arréridj Province have a historical dimension, stemming from French intervention through territorial reorganization and the formation of foreign capital.

Post-independence development policies contributed to the province's growth but failed to create a balance between its three regions.

To bridge the development gap between mountainous and plain areas and attempt to restore territorial balance, we propose:

Valuing local resources, such as mountain tourism and forest wealth.

Utilizing human resources, particularly the youth.

Protecting mountainous environments.

Financial and technical support for local communities.

Good governance in managing local communities.

Improving and diversifying economic activities.

Supporting productive sectors in the province.

Popular participation (community involvement).

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