<table>
<thead>
<tr>
<th>JOURNAL</th>
<th>International Journal of Innovative Technologies in Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-ISSN</td>
<td>2544-9338</td>
</tr>
<tr>
<td>e-ISSN</td>
<td>2544-9435</td>
</tr>
<tr>
<td>PUBLISHER</td>
<td>RS Global Sp. z O.O., Poland</td>
</tr>
<tr>
<td>ARTICLE TITLE</td>
<td>THE MANAGEMENT OF URBAN SPACE BETWEEN THE CONFLICT OF ACTORS AND FILED REALITY, CASE STUDY: KHENCHELA PROVINCE – AN INLAND CITY IN THE EAST OF ALGERIA</td>
</tr>
<tr>
<td>AUTHOR(S)</td>
<td>Djebnoune Brahim, Guendouz Berrehail, Messaoud Inasse, Rachi Sana</td>
</tr>
<tr>
<td>DOI</td>
<td><a href="https://doi.org/10.31435/rsglobal_ijitss/30062024/8206">https://doi.org/10.31435/rsglobal_ijitss/30062024/8206</a></td>
</tr>
<tr>
<td>RECEIVED</td>
<td>25 May 2024</td>
</tr>
<tr>
<td>ACCEPTED</td>
<td>29 June 2024</td>
</tr>
<tr>
<td>PUBLISHED</td>
<td>30 June 2024</td>
</tr>
<tr>
<td>LICENSE</td>
<td>This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>.</td>
</tr>
</tbody>
</table>

© The author(s) 2024. This publication is an open access article.
THE MANAGEMENT OF URBAN SPACE BETWEEN THE CONFLICT OF ACTORS AND FILED REALITY, CASE STUDY: KHENCHELA PROVINCE – AN INLAND CITY IN THE EAST OF ALGERIA

Djebnoune Brahim
"Water and Environment" Laboratory, El Chahid Cheikh Larbi Têbessi University, Têbessi.
ORCID ID: 0000-0001-7200-9563

Guendouz Berrehail
Laboratory of Urban and Environmental Analysis. Department of Planning. Badji Mokhtar Annaba University, Algeria.

Messaoud Inasse
"Water and Environment" Laboratory, El Chahid Cheikh Larbi Têbessi University, Têbessa.

Rachi Sana
"Water and Environment" Laboratory, El Chahid Cheikh Larbi Têbessi University, Têbessa.

DOI: https://doi.org/10.31435/rsglobal_ijitss/30062024/8206

ARTICLE INFO
Received 25 May 2024
Accepted 29 June 2024
Published 30 June 2024

ABSTRACT
The demographic explosion of Algerian cities by a positive natural balance and population migration movements transforms urban landscapes and leads them to growing environmental pressure. The resulting spatial increase is more or less planned. It does not only characterize large cities or capitals. The so-called medium-sized cities are also affected, if not more, because they rarely have the assets of large cities to exercise planning and control. The growth of these urban centers has several effects: densification of the fabric, change of urban areas preserved or associated with specific functions, and progress towards agricultural or natural areas. Because it leads to increasing needs for housing and services, growth is reflected in the anarchic extension of the urban area on one hand, and in the appearance of unprompted urban houses on the surroundings of cities. Based on the general hypothesis that urban spatial forms can be analysed using available and supposedly reliable divisions, we attempted to analyse some divisions of Khencela Province. Our analysis focused on identifying the forms that favour the indications (organizations, directions, temporality, etc.) they provide and the constitution of forms of these divisions. The objectives of the delimitation of urbanization zones (sectors, districts, boroughs) aim to ensure the achievement of the spatial planning orientations from which the objectives are significant. Spatial organization must contribute to the quality of life of the inhabitants, including future generations. (Christophe, 1998)

The reaction concerning the organization of the different functions (housing, economic activities, shops, leisure facilities, transport infrastructures, etc.) indeed affects everyone's living environment. It can have considerable consequences in many areas directly related to Khencela Province inhabitants.

KEYWORDS
Boundary, Divisions, Zones, Sectors, Districts, Boroughs, Khencela Province.
Introduction.

The city has become a place of socio-environmental problems whatever the degree of economic and social development of the area is.

The dense population in the city, the activities load, urban accessibility, the extension of built-up areas, the conservation of architectural and urban heritage, gardens and leisure areas all mean that city managers are in charge of environmental, social and cultural sustainability, which has now become an urgent necessity. In Algerian cities, with the accelerated process of urbanization and the demographic explosion, quality of life management standards, as well as the strong need to conserve the current heritage, put a particular focus on addressing the environmental issues of citizens in terms of convenience and safety. (BAILLY, 1995)

The scale and speed of growth and the obstacles to agreement between the local actors who manage urban areas have led to dispersion and conflict in the implementation of actions by local authorities, and an overall deficit in the various forms of quality of life for people in neighborhoods. To what extent does coordination between urban actors and citizens contribute to the construction and better governance of quality of life in the city? The purpose of implementing a social policy is to build and improve "living together" in the city and in the country as a whole. In this case, quality of life depends on the direction taken by local actors, because only political choices can work towards reducing social inequalities. This approach is based on relations between actors and citizens. Quality of life is associated more with the governance system than with political action itself.

Therefore, the desired approach involves the systematic use of residents' claims; consultation and participation. By integrating residents in the management of their neighbourhood, they become active members in the community along with their stakeholders. (BARBARINO-SAULNIER, 2002)

If we did not define territorial boundaries, we could think about this idea of urban sprawl (spreading). Some scholars deem the phenomenon of urban sprawl as one of the negative issues for sustainable development while others deem it more as an extension of the city beyond its «physical boundaries»

The territory boundaries between citizenship and civic-mindedness.
Delimiting a territory is most often the result of a society's awareness of its demographic, social, economic, political and cultural changes.

This action is the expression of a desire for a new mode of territorial appropriation, while at the same time contributing to the future political organisation of the society. In most societies, the legitimacy of any territorial division or redrawing is based primarily on the concern of increasing the participation of residents in political life, thus to improve the way democracy and governance work. (GEORGE, 1974)

It is true that, since Plato and Aristotle demonstrated the Greek city experience, the relationship between populations and territories has been part of this vision of the ideal city and the exercise of citizenship. Any initial division of a territory certainly takes into account topographical, geological and climatic factors, but it is also based on the memory of the people, the history of the area, the demographic and economic potential and the means of communication and accessibility. (GHORRA-GOBIN, 1997)

The division matter of Khenchela Province.
There are several divisions in Khenchela Province. Unfortunately, these divisions are based on the needs of each organisation. However, each division should normally meet a specific objective and complement the others, and should in no way replace another. The existing divisions reflect the diversity and conflicts between urban actors within the city.
Materials and Methods.

The expectations of a division reflect the objectives and developments of the city. Therefore, it is necessary to obtain a boundary that is more consistent with recent changes of the use of land and urban areas.

The users of this division must express their wishes to obtain an updated map in order, among other aspirations, to delimit and analyse the heart of the metropolitan area, and to make the formulation of the map simpler, clearer and more adaptable.

The purpose of the division is to respond to a number of analytical concerns that go beyond the simple urban expression of the city.

As a result, each sector is defined according to specific criteria, which can not only make the division easier to understand, but also help to understand its use and dissemination.

There is no universal, automatic method to evaluate and analyse the boundaries of a city, region or wilaya (province).

The Algerian city, like all cities today, suffers from many problems resulting from demographic, urban planning and economic developments, as well as the absence of a territorial organisation that is evolving simultaneously.

The conflicts between actors in the city reflect the non-compliance of existing divisions, such as the division into urban planning sectors, boroughs and districts, which rarely coincide, whereas the administrative space is defined by law (US urban planning sectors).

Khenchela Province has several divisions: urbanism sectors, districts or boroughs. In order to make the most appropriate choice for our theme, we examined the various existing divisions, which are too numerous to be detailed here. Some are purely functional, such as the National Statistics Office (ONS) division, the national security division by district, the PDAU and POS division of urbanised sectors, and finally there is the division drawn up by the environment department, which is used by the city's cleaning services (ONS, 2008).

Division for management purposes?

What is the best division in line with an administrative status and which can meet the needs of the people who live permanently or temporarily on the territory of a town?

To answer this question, different approaches can be considered based on mathematical or statistical data. Spatial gaps can be identified, for example by applying spatial analysis methods such as meshing and gravity models.

It is also possible to look for the most relevant boundaries defining coherent sets from several existing city boundaries. (Dauphiné, 1988)

Such a division must meet the following criteria:

a. **Equity.**

Equity is equality. It means ensuring that the less developed catch up. Equity is therefore the principle that governs the division of spaces, zones and cities.

b. **Governance.**

To speak of governance in the context of the territorial management of a city means resolving local complexity and the related difficulty of governing it by organising the participation of all local actors in the city management.

So, the governance in this regard is based on consultation, which is a founding principle of the notion of participation.

The administrations that divide up the territory of the city.

The work devoted to "thoughts about the city", of Françoise Choya focused on the ways of thinking about the city and its extension, or on the concepts (networks, centralised) which attempt to order the development of cities. However, these studies have paid little attention to the administrative forms of the city. As regards the construction of urban territories, or the intra-urban management of the municipal territory, the approaches remain very legal, and are often dictated by the desire to specify a framework for study rather than to define it.

At the basis of this state practice, there are concerns about the control of society and the effectiveness of the administrative tool.
In this perspective, space and spatial processes, are perceived as the instruments of rationalization with the neutral load that the use of space and nature at the national or local scale seems to embed its structures and administrative methods in this spatial dimension.

**Reasons of dividing the territory.**

There are two completely different objectives when it comes to divide a territory: to manage it, or to study it. Perhaps managing the territory is according to the interests of the one who divides it or the interests of the area. We will admit that the second reason seems less common.

The public power divides the territory to govern, command and manage and also to monitor, to circumscribe, to drain information and taxes, to articulate orders and laws, therefore to impose its order. Each organization divides the territory to suit its best interests. The other reason of discovering the divided space after trying to understand it is mainly scientific curiosity. So, we must imagine the organization of space. Which subsystems seem to stand out? Where are the cores, relays, fringes and thresholds? Answering these questions is one of the geographers’ concerns. We can’t divide up wherever we want or wherever it suits us. (BRUNET R., 1997)

There are two answers to this question. Some, like Danièle Loschaufc, believe that social control is achieved through the grid and spatial division that establish continuous surveillance of the territory, and the channelling and domestication of feared forces. The prevalence of state power in the service of the ruling class necessitates spatial division. (HILGERS, 2000)

Others, including Jacqueline Beaujeu-Garnier, tend to see the practices of territorial division as a kind of quest for administrative perfection, a tool of expert power organised by bodies whose only concern is to facilitate relations between a function and its users (SAUNIER, 1997).

**Analysis of Khenchela Province divisions applying a set of methods.**

To examine the various divisions in Khenchela Province, we opted for two spatial analysis methods:

- **The theory of tessellations and Thiessen polygons.**
- **Territorial paving.**

Managing or supervising an area of a city, for example, automatically involves dividing it into sectors (for town planning or waste collection), districts or neighbourhoods, which should correspond to administrative units, each with its own management potential, leadership and power.

The problem generally lies in seeking to optimise and subdivide the territory into units that are balanced from all points of view (demographic, territorial and socio-economic). But this approach is purely theoretical. Although it is important for understanding the organisational principles of space, this method remains approximate as soon as we study geographical areas where the living dynamic aspects of space are essential.

"Any administrative division must exist in relation to a centre which should, in theory, be the centre of influence and management of the area administratively concerned". (Pinchemel, 1997)

**Definition of shape index.**

The value of the shape index decreases as one moves away from the shape of the circle. Calculating the shape indices of administrative areas enables to compare them with regular geometric shapes such as squares or hexagons. Therefore, it is not a matter of looking for the hexagonal shape, which requires a very regular distribution of localities and an isotopic space, but any shape that comes close to a regular polygon is theoretically more effective than a shape that comes close to an irregular polygon.

The most suitable index is the one that corresponds to the following mathematical formula:

\[ F = \frac{1.27 \cdot A}{L^2} \]

- \( F \): the shape index;
- \( 1.27 \): constant multiplier so that \( F = 1 \) in the case of the circle;
- \( A \): is the area of the district;
- \( L \): is the length of the longest axis of the district.
Properties of the shape index the values obtained can vary from 0 to 1 depending on the shape of the area and the index must meet the requirement (0 ≤ F ≤ 1). 
- Elongated shapes will have the lowest values, while shapes that approach the circle or are geometrically regular will have the highest scores.
- In the case of regular shapes, the value of the shape index approaches unity as the number of sides increases.
- The hexagon has a higher index value than the square, which itself has a higher index value than the equilateral triangle.

The division of the PDAU into sectors.

The Master Plan of Planning and Urbanism is a tool for implementing town and country planning policy. It was created by the Law 90-29 of December 1st, 1990 related to planning and urbanism. It is a device for spatial planning and urban management, the purpose of which is to set out the fundamental guidelines for land use planning, taking into account development schemes and plans. It provides a link between spatial planning and statutory urban planning by serving as a framework for development and urban planning policies.

The Master Plan of Planning and Urbanism can be defined as a decentralised, forward-looking policy document.

Based on the needs identified by the short- and long-term demographic projections, the perimeter of Khenchela Province is divided into nine (09) urbanised sectors; "SU" the 9th sector is the industrial zone "Z1".

![Figure 1. Map of the division of the city of Khenchela into urban planning sectors.](source: PDAU de Khenchela2008)
Definition of urbanisation sectors.
The urbanisation sectors as defined in articles 20, 21, 22 and 23 of the law 90/29 of December 1st, 1990 related to town planning and development are made up of:

a. Urbanised sectors (US):
These include all the land, even if it is not fully serviced or occupied by buildings, prospect areas, facilities, or where green spaces, open areas, parks and urban forests, intended to serve these built-up sectors.

Urbanised sectors also include parts of urbanised areas to be renovated, restructured and protected.

b - Sectors to be urbanised (S.T.U).
Sectors to be urbanised include the land to be urbanised in the short and medium term, over a ten years (10) period, in the name of the priority set out in the PDAU.

c - Sectors for future urbanisation (S.F.U).
Sectors for future urbanisation include all land to be urbanised in the long term, within a timeframe of twenty (20) years. At the timescales set out in the PDAU, they provide for extensions that would ensure the continuity of a coherent organisation of built-up sectors.

d - Non-urbanisable sectors (N.U.S).
Sectors that cannot be built on are those in which building rights can be granted but regulated in limited proportions, compatible with the general economy of the territories in these sectors. Sectors that cannot be built up include:
- Agricultural land.
- Forest zones.
- Natural zones.
- Easements for gas and electricity pipelines.
- Flood zones.

Table 1. Vocation and facilities by sector of the city of Khenchela.

<table>
<thead>
<tr>
<th>Urbanized area</th>
<th>Area (Ha)</th>
<th>Vocation</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>SU1</td>
<td>180</td>
<td>Residential Commerce</td>
<td>Headquarters of the wilaya, the APC, the different directions,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tertiary</td>
<td>urban security, the PTT, banks, hotels.</td>
</tr>
<tr>
<td>SU2</td>
<td>97,90</td>
<td>Residential</td>
<td>- School, CEM, CFPA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Youth centre</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Mosque</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Christian cemetery</td>
</tr>
<tr>
<td>SU3</td>
<td>70</td>
<td>Residential</td>
<td>- School, CEM, CFPA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Youth centre</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Mosque</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Christian cemetery</td>
</tr>
<tr>
<td>SU4</td>
<td>97,90</td>
<td>Residential</td>
<td>- 02 schools, 02 high school</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Mosque</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Stadium</td>
</tr>
<tr>
<td>SU5</td>
<td>196,20</td>
<td>Residential</td>
<td>06 schools, CEM, 02 Mosques</td>
</tr>
<tr>
<td>SU6</td>
<td>144,80</td>
<td>Residential</td>
<td>- 06 schools, 03 CEM, 01 high school</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Mosque</td>
</tr>
<tr>
<td>SU7</td>
<td>43,50</td>
<td>Residential</td>
<td>School, CEM, former University Centre</td>
</tr>
<tr>
<td>SU8</td>
<td>102</td>
<td>Residential Services</td>
<td>- 01 school, university residence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- A hospital in the process of being realized</td>
</tr>
<tr>
<td>SU9</td>
<td>52</td>
<td>Industrial zone</td>
<td>//</td>
</tr>
</tbody>
</table>
The division of security in Khenchela Province.

The method devised by the security forces of Khenchela Province to make the division of the province is simpler.

A division is drawn up at a local meeting of the various senior officials (senior officers of the city police force) after discussions and proposals. The city has five boroughs.

According to the commissioner of police in the city, the only criterion established was the history of the city (when neighborhoods were created).

The neighborhoods of the 1st borough are the oldest that correspond to the colonial city, and the neighborhoods created afterwards (see the map of the city by boroughs), while the neighborhoods of the 5th borough are the mostly recent.

The analysis of the table shows that the forms of the security districts of Khenchela consist of two groups:

1. The first group is dominant and made up of boroughs 2, 3 and 4, whose shape index is less than 0.5801, and whose shape is close to that of a square.

2. The second group is made up of boroughs whose shape index is less than 0.43 and whose shape is similar to that of an elongated triangular tiling (pavae allonhé) (MORALES, 1993).

Table 2. Calculation of the Form Index of the Five Districts of the City of Khenchela.

<table>
<thead>
<tr>
<th>ARROND</th>
<th>Medium</th>
<th>A (km)</th>
<th>The cm</th>
<th>The km</th>
<th>L2</th>
<th>1.27*A</th>
<th>F</th>
<th>Paving Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARR1</td>
<td>28.97</td>
<td>3.2121</td>
<td>10</td>
<td>3.33</td>
<td>11.09</td>
<td>4.079</td>
<td>0.3679</td>
<td>Elongated</td>
</tr>
<tr>
<td>ARR5</td>
<td>14.43</td>
<td>1.6005</td>
<td>7</td>
<td>2.33</td>
<td>5.43</td>
<td>2.033</td>
<td>0.3741</td>
<td>Elongated</td>
</tr>
<tr>
<td>ARR4</td>
<td>29.23</td>
<td>3.2417</td>
<td>8</td>
<td>2.664</td>
<td>7.10</td>
<td>4.117</td>
<td>0.5801</td>
<td>close to carré</td>
</tr>
<tr>
<td>ARR2</td>
<td>35.83</td>
<td>3.9735</td>
<td>9</td>
<td>2.997</td>
<td>8.98</td>
<td>5.046</td>
<td>0.5618</td>
<td>close to carré</td>
</tr>
<tr>
<td>ARR3</td>
<td>65.00</td>
<td>7.2078</td>
<td>12.3</td>
<td>4.0959</td>
<td>16.78</td>
<td>9.154</td>
<td>0.5456</td>
<td>close to carré</td>
</tr>
</tbody>
</table>

Figure 2. Shape index of the districts of the city of Khenchela.
Analysis of divisions using the Thiessens polygon method or minimum energy theory.

Definition of the method.

The aim of this method is to achieve an optimal division of space based on accessibility and equidistance. It allows space to be divided according to the shortest distance from a locality, in relation to the surrounding boroughs, sectors and districts, and in relation to the whole city.

The aim of this graphic simulation method is to compare theoretical boundaries with actual administrative boundaries by constructing polygons around the centres (borough locations).

The approach corresponds to an optimal tessellation that can be compared with the existing one. It assumes that each borough location must correspond to a central position in relation to its territory and boundaries.

Methodological benchmarks.

This method was first used in 1911 by Thiessens to calculate average rainfall in watersheds (drainage basins). The aim was to produce rainfall maps of a watershed area based on data supplied by a network of meteorological stations irregularly distributed over the area.

Its accuracy is based on two prerequisites:
- The uniformity of population density throughout the region;
- The number of districts in each hexagon.

The map in the figure, which compares the geometric layout of Thiessens' polygons with the division of the five existing boroughs of Khenchela Province, reveals a remarkable shift in the grid, with the theoretical paving being larger or the shapes widening towards the east and south. The differences between the actual and theoretical boundaries are also greater, and the interstitial surfaces are remarkable when the city is divided into boroughs.

![Diagram of district boundaries optimization](image)

*Figure N°3. Optimization of the district boundaries of the city of Khenchela according to the Thiessen polygon method.*
The division of the environment department of Khenchela Province.

In order to manage the city of Khenchela in terms of waste collection, the environment department has adopted a division of the city into ten (10) collection sectors according to the following criteria:

- The date of creating the buildings to be homogeneous along with the PDAU and ONS divisions.
- Inspired by the function of each collection sector (residential, commercial, administrative, etc).

Table 3. The analysis of shape index of waste collection sectors in Khenchela province.

<table>
<thead>
<tr>
<th>Collection areas</th>
<th>SUP(A)</th>
<th>A (km)</th>
<th>1.27*A</th>
<th>L</th>
<th>The km</th>
<th>L2</th>
<th>F</th>
<th>Paving Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC2</td>
<td>5,73</td>
<td>2,064</td>
<td>2,6213</td>
<td>5,5</td>
<td>3,3</td>
<td>10,89</td>
<td>0,24071</td>
<td>Elongated</td>
</tr>
<tr>
<td>SC4</td>
<td>4,13</td>
<td>1,488</td>
<td>1,8898</td>
<td>4</td>
<td>2,4</td>
<td>5,76</td>
<td>0,32808</td>
<td>Elongated</td>
</tr>
<tr>
<td>SC5</td>
<td>5,80</td>
<td>2,088</td>
<td>2,6518</td>
<td>5</td>
<td>3</td>
<td>9,00</td>
<td>0,29464</td>
<td>Elongated</td>
</tr>
<tr>
<td>SC7</td>
<td>10,23</td>
<td>3,684</td>
<td>4,6787</td>
<td>6,5</td>
<td>3,9</td>
<td>15,21</td>
<td>0,30761</td>
<td>Elongated</td>
</tr>
<tr>
<td>SC10</td>
<td>17,80</td>
<td>6,408</td>
<td>8,1382</td>
<td>8,5</td>
<td>5,1</td>
<td>26,01</td>
<td>0,31289</td>
<td>Elongated</td>
</tr>
<tr>
<td>SC9</td>
<td>13,37</td>
<td>4,812</td>
<td>6,1112</td>
<td>5</td>
<td>3</td>
<td>9,00</td>
<td>0,67903</td>
<td>square</td>
</tr>
<tr>
<td>SC8</td>
<td>12,20</td>
<td>4,392</td>
<td>5,5778</td>
<td>5,5</td>
<td>3</td>
<td>10,89</td>
<td>0,51220</td>
<td>equilateral triangle</td>
</tr>
<tr>
<td>SC3</td>
<td>9,57</td>
<td>3,444</td>
<td>4,3739</td>
<td>5</td>
<td>3</td>
<td>9,00</td>
<td>0,48599</td>
<td>equilateral triangle</td>
</tr>
<tr>
<td>SC1</td>
<td>7,50</td>
<td>2,7</td>
<td>3,429</td>
<td>4,5</td>
<td>2,7</td>
<td>7,29</td>
<td>0,47037</td>
<td>equilateral triangle</td>
</tr>
<tr>
<td>SC6-1</td>
<td>5,47</td>
<td>1,968</td>
<td>2,4994</td>
<td>4</td>
<td>2,4</td>
<td>5,76</td>
<td>0,43392</td>
<td>equilateral triangle</td>
</tr>
<tr>
<td>SC6-2</td>
<td>8,87</td>
<td>3,192</td>
<td>4,0538</td>
<td>4,8</td>
<td>2,88</td>
<td>8,29</td>
<td>0,48874</td>
<td>equilateral triangle</td>
</tr>
</tbody>
</table>

Results and Discussion.

An overall analysis of the table of waste collection sectors shows that the shapes of the collection sectors are very different from those of other divisions (ONS, POLICE, urban sectors PDAU, POS). (l’environnement, 2008) Elongated and triangular shapes dominate, which explains the specificity of this division for economic reasons concerning the route taken by the garbage trucks in the shortest possible time (OCDE, 1997).

The dominant shapes are:
1. The first group includes sectors SC 2, 4, 5, 7 and 10, whose scores are low because of their very elongated shapes.
2. The second group is made up of unit sectors with an index greater than 0.43392 and less than 0.51220, whose shape is an equilateral triangle.
3. Only sector 9 has the shape of a square.

9.2 Division analysis using the curve and concentration index Definition of the method.

It is used to characterise inequalities in the distribution of the values of a variable between individuals and a corresponding population. It indicates the percentage of one variable used in relation to another as a whole. (Gini, (1884-1965).) It is used to describe economic units or to make spatial comparisons between two parameters. Concentration index calculations can be used to highlight disparities. To calculate the index in our case, we used two parameters
1. Position
2. Dispersion

\[ I_G = \frac{1}{100^2} \sum_{i=1}^{k} (F_i \sum_{j=1}^{k} Q_{ij} - F_{ij} \sum_{j=1}^{k} Q_{ij}) \]
Table 4. Concentration index for waste collection sectors in Khenchela Province

<table>
<thead>
<tr>
<th>Collection areas</th>
<th>Population(98)</th>
<th>fi (%)</th>
<th>Fig., (%)</th>
<th>Area</th>
<th>IQ (%)</th>
<th>Qi (%)</th>
<th>fi (Qi-I+Qi)</th>
<th>(Fi+i*Qi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC1</td>
<td>8897</td>
<td>7,5</td>
<td>7,5</td>
<td>2,7</td>
<td>7,5</td>
<td>7,5</td>
<td>-19,71</td>
<td></td>
</tr>
<tr>
<td>SC2</td>
<td>9817</td>
<td>8,3</td>
<td>15,8</td>
<td>2,064</td>
<td>5,7</td>
<td>13,1</td>
<td>170,7</td>
<td>-1,01</td>
</tr>
<tr>
<td>SC3</td>
<td>13620</td>
<td>11,5</td>
<td>27,2</td>
<td>3,444</td>
<td>9,5</td>
<td>22,6</td>
<td>410,7</td>
<td>-172,12</td>
</tr>
<tr>
<td>SC4</td>
<td>14883</td>
<td>12,5</td>
<td>39,8</td>
<td>1,488</td>
<td>4,1</td>
<td>26,8</td>
<td>619,4</td>
<td>-12,35</td>
</tr>
<tr>
<td>SC5</td>
<td>10716</td>
<td>9,0</td>
<td>48,8</td>
<td>2,088</td>
<td>5,8</td>
<td>32,5</td>
<td>535,0</td>
<td>486,36</td>
</tr>
<tr>
<td>SC5+2</td>
<td>7612</td>
<td>6,4</td>
<td>55,2</td>
<td>5,16</td>
<td>14,2</td>
<td>46,8</td>
<td>508,3</td>
<td>120,83</td>
</tr>
<tr>
<td>SC7</td>
<td>11183</td>
<td>9,4</td>
<td>64,6</td>
<td>3,684</td>
<td>10,2</td>
<td>56,9</td>
<td>976,7</td>
<td>91,37</td>
</tr>
<tr>
<td>SC8</td>
<td>14431</td>
<td>12,2</td>
<td>76,8</td>
<td>4,392</td>
<td>12,1</td>
<td>69,0</td>
<td>1531,2</td>
<td>195,77</td>
</tr>
<tr>
<td>SC9</td>
<td>14166</td>
<td>11,9</td>
<td>88,7</td>
<td>4,812</td>
<td>13,3</td>
<td>82,3</td>
<td>1806,2</td>
<td>640,60</td>
</tr>
<tr>
<td>SC10</td>
<td>13386</td>
<td>11,3</td>
<td>100,0</td>
<td>6,408</td>
<td>17,7</td>
<td>100,0</td>
<td>2055,8</td>
<td>0,00</td>
</tr>
</tbody>
</table>

It can be expressed graphically in a reference frame in association with each variable xi of the variable X, a point with the coordinates of the increasing cumulative frequency Fi on the abscissa (x-axis), and the increasing cumulative relative overall value Qi on Y-axis.

a. The diagonal represents the case of a variable whose values are distributed equitably between the different individuals making up the statistical population (equipartition line).
b. The greater the concentration, the closer the curve is to the opposite sides.

Figure 4. The curve and concentration index of waste collection sectors in the city of Khenchela "The Lorenz Engineering Index" Daily quality of life.

The further away it is and the closer it is to the diagonal, the fairer the distribution; the statistical series is therefore characterised by low concentration.

According to the IG value = 0.1330, we can see that concentration is high in the collection sectors: SC3 SC4 SC5 and low in the rest of the sectors.
Overall, 58% of the population of the waste collection sectors occupies only 50% of the surface area.

**The results of division analysis.**

Generally speaking, areas are used for three purposes: appropriation, use and management. Appropriation involves spatial division and the creation of management units: administrative units, sectors, districts and neighbourhoods. Each division must normally meet a specific objective, including the aim of good territorial management.

The aim is to improve the daily quality of life of the inhabitants within a framework of sustainable development and good governance. In-depth examination of the various existing divisions in Khenchela Province by the different bodies (ONS, PDAU and POS, environment department, security, etc.), using a number of spatial analysis methods and theories (field and mesh analysis, paving and Thiessens polygon theory, territorial paving, shape index, concentration index18, etc.), have enabled us to define the criteria to be used to define the boundaries of the town allowing to define the criteria to be used for the existing divisions in Khenchela Province by the various local actors. (VARNIER M, (1997).)

Unfortunately, these divisions are based on the needs of each organism without taking into account the others, which subsequently reflects the diversity and conflicts between urban actors within the city’s urban areas.

**The boundaries between geography and politics.**

The geographer sees himself as the ‘man of the field’, and so does the politician; the geographer analyses the territory. Politicians exist through geographers. Geographers draw boundaries in space to differentiate it. The relationship between geography and politics is that each one is the pursuit of the other-by-other means, because geography leads to planning and planning to action, and geographers like to get involved in politics.

When the scientist and the politician are the same man, we cannot fail to be interested by the reflections on their greatest common denominator: the territory, and therefore its divisions.19

The first boundaries of the territory always have to be in a real debate due to the territorial reorganisation that just took place.

The territorial response to the need for new scales of local action, an undeniable necessity in the fields of economic development, transport organisation and environmental protection, is a response that seeks, once again, to institute the new right scale and rule of governance.

It can only raise yet another institutional structure, when the existing system is already saturated and lacks after all the culture, habits and rules of negotiation between public bodies and other bodies. The real institutional innovation would not consist in the attempt to reduce territorial fragmentation by setting up a super-mesh that would gradually digest the others, but in accepting the increasing complexity of the local level, and organising the management and development of the urban area within a totally open system of actors.

Observation of Khenchela Province divisions (PDAU, POS, Security, the department of environment, ONS) clearly reveals a lack of coordination, coherence and compatibility between the various bodies involved in the city. Each one divides up the city’s territory according to its own needs and interests.

**Conclusions.**

Over the course of its history, the Algerian city has become the result of a number of complex processes, the rapid growth of which has led its metropolitan area to manage space in a way that is often bad and poorly supported, to the extent that it is generating today an accumulation of spatial and social weaknesses, with the Algerian population losing its bearings as city dwellers.

Unfortunately, in Khenchela Province, there are several divisions based on the needs of each organisation, without taking the others’ needs into account. But these divisions reflect the diversity and conflicts between urban actors within the city itself. Each division must normally meet a specific objective and complete the other divisions, without taking the place of any another division, with the aim of good territorial management and improving the daily quality of life of the inhabitants in the name of sustainable development and good governance.

What contribution does governance make to the quality of life of Khenchela inhabitants?
Establishing good governance, especially in an urban environment, can help to improve the quality of life, the criteria for which are constantly changing over time, in terms of collaboration with local authorities and the satisfactory relations between them. It seems today that local authorities are the right territorial unit to be proactive in terms of quality of life.

In this context, taking into consideration the social dimension raises the question of social sustainability and the question of public economic, social and environmental policies that do not cause social dysfunction to the extent that they call to examine the possibilities for improving the well-being of the whole present and future population".

The findings came out with three sustainability criteria: accessibility to all goods and services, building capacities of all kinds and equity in the face of all available and transmissible potentials. On this basis, it becomes possible to ensure that all social gains can be passed on from one generation to another without the risk of widespread regression of their direct contact with populations and their responsibilities in fields that directly affect.

Local actions:
- Accessibility to education, culture, economic development, security and health.
- Involving citizens directly in management by providing means of transport to reach every district in the city.
- Setting up sub-offices of the various administrations.

Citizenship for a better quality of life.

Khencela, like all Algerian cities, belongs to its inhabitants. This is an obvious fact that political structures have rarely taken into account until now. The district must adapt to the needs of its population, and not the way opposite: this is the whole point of new forms of citizen participation, a local urban and social management approach that aims to improve the quality of life in districts and the service provided to residents on a daily basis.

The social and urban diagnosis of the main social housing neighbourhoods requires the development of a short-term local urban and social management initiative, the main aim of which is to improve the image of these neighbourhoods by:
- Involving residents by setting up neighbourhood committees and associations.
- The need to intervene in these neighbourhoods and to make sure of the closeness of public facilities such as the APC, PTT, or at least a health and sports facilities.
- Household waste collection.
- Solving accessibility problems: some residents feel that they are a long way from the town centre and find it difficult to get there.
- Territorial management (maintenance and management of outdoor spaces, street lighting, parking).

These new forms of citizenship promote the contact between local authorities and residents, either through direct contact with the residents themselves or through the local community.

REFERENCES

2. BARBARINO-SAULNIER, N. (2002). De la qualité de vie au diagnostic urbain, la cas de la ville de Lyon.