

BOSNIA AND HERZEGOVINA – TRANSIT AREA OR UNWANTED MIGRANT DEPOTS?

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Abstract. This paper analyses the routes of migrants fleeing conflict and poverty from the Middle East, South Asia and Africa. The causes of the migrant crisis in Bosnia and Herzegovina are also explained. The problems the state is facing and the potential solutions are presented. Constant conflicts in the Middle East and North Africa have generated mixed-type mass migrations towards the European continent. This process has led to a refugee migration crisis, including refugees, asylum seekers, economic migrants, victims of smuggling and human trafficking, and other categories of vulnerable people who do not have valid documentation. Migrants from endangered areas are moving across the Mediterranean or the Western Balkans towards Europe. After the shutdown of the Western Balkan route, opportunity has arisen for illegal migration, as well as for the operation of criminal networks. Bosnia and Herzegovina has been an inadvertent station for migrants and refugees since 2016, and since 2018 the situation has become more complex due to a larger influx. An additional problem is the lack of accommodation facilities and the complex political system. This article presents a contribution to the theoretical and practical research of contemporary migration flows in the Balkan countries.

1. INTRODUCTION

Migrations are the movements of persons from their place of usual residence, either across an international border or within a country. The International Organization for Migration (IOM) defines a migrant as any person who moves or crosses an international border, or leaves his or her usual place of residence within his or her country, regardless of (1) the legal status of the person; (2) whether the movement is voluntary or forced; (3) the causes of movement; or (4) the length of stay. In everyday speech, the terms refugee, asylum seeker, and migrant are often overlapped, leading to misunderstandings in discussions on asylum and migration. Refugees are people who are outside their country of origin for fear of persecution, conflict, violence, or other circumstances that seriously disturb public order and, as a result, require international protection. Asylum seekers are individuals who have applied for international protection and whose applications for refugee status have not yet been approved. People who do not meet the conditions for refugee status, or the so-called subsidiary protection, may be deported. In Bosnia and Herzegovina, the competent authorities (Ministry of Security of Bosnia and Herzegovina – Asylum Sector) are responsible for foreigners seeking international protection. They have access to primary health care, to primary and secondary education, free legal aid, and psychosocial assistance, with the support of the UNHCR (UNHCR, 2018). A migrant crisis is defined as an assembly of complex and often extensive migratory flows and patterns of crisis-induced mobility

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that typically involve significant vulnerabilities for individuals and affected communities, and generate acute and long-term migration management challenges (IOM, 2019).

Europe, one of the most developed parts of the world, has attracted migrants in the past, but the beginning of the great migrant crisis can be traced back to 2015. The demographic crisis is obvious in the area of the European continent, which over time has created the need for additional labour force and rejuvenation of the population. Since 2015, Europe has been facing an increased influx of migrants from the Middle East and North Africa. After the Arab Spring, a growing trend of sectarian, tribal, and local conflicts and tensions within and between countries was evident in the Middle East and Maghreb region. In explaining the civil conflict in Yemen, Petrovic (2017) pointed out that the fragmented internal political scene in the Middle East is not only the product of intervention by external actors, but also of many smaller, local conflicts between tribes fighting for supremacy in a certain territory. The disagreements are further exacerbated by religious differences and different interpretations of Islam. Indirect factors contributing to this rapid acceleration of migration flows are global temperature rises due to global warming, drought, floods and food shortages, as well as the search for better and safer living conditions in relation to the proverbially unstable area of the Middle East (Dušanić, Hrekes, Pralica, 2019). Such a chaotic situation, supported by the poor economic situation in many countries in the region, has caused a huge outflow of refugees and migrants, as well as mass internal displacement, with serious geopolitical consequences that have exceeded the borders of the Middle East and the Maghreb. Sharp divisions within warring religious sects, often mixed with tribal/ethnic rivalries, and the rapid rise of opposing local militias in a political/security vacuum have made the region extremely unstable. The situation has been exacerbated by tensions between regional governments and their active or tacit coordination with one conflict group or another in the country. Hence, the conflicts became multi-layered, multifaceted and increasingly violent. It was the constant conflicts in that part of the world that were the driving force behind the last wave of migration. Due to all these events in Europe, there were a total of 1.2 million asylum seekers and migrants between January 2015 and January 2016, of which 1.06 million travelled by sea. Greece received almost 911,000 asylum seekers and migrants, and Italy over 157,000 (Ghosh, 2018). Most were refugees from Syria (52%), Afghanistan (10%) and Iraq (6%) (ACAPS, 2015). These mixed-type mass migrations, which include refugees, asylum seekers, and economic migrants, victims of smuggling and human trafficking, women and children, and other categories of undocumented vulnerable persons are labelled as a “refugee/migration crisis” in Europe (Bobić, Šantić, 2018).

2. METHODOLOGY

This paper analyses the migrant crisis in Bosnia and Herzegovina, and elaborates the current crisis in the Western Balkans, based on field research, previous knowledge, collection of various information and documents. This paper identifies the causes of the migrant crisis in Bosnia and Herzegovina and the problems faced by the population, the government, and the migrants. Writing this paper, statistical indicators from the Ministry of Security of Bosnia and Herzegovina, the European Union (EU), UN organizations such as the UN Refugee Agency (UNHCR) and the IOM (leading intergovernmental organizations in the field of migration) were used. The methodology is primarily based on analysis and synthesis, as well as induction and deduction. The paper explains the obstacles that stand in the way of overcoming the crisis and provides guidelines and proposals for resolving the migrant crisis. The political scene and the state system appear to be the main enemies of finding a solution. The authors of this paper infer that it is necessary to establish coordination between different levels of government. The conducted research indicates that the issue of the migrant crisis needs to be resolved at the state level. This means that it is necessary to find a consensus to harmonize decisions for both entities. Also, the paper emphasizes the need to strengthen state borders in order to prevent

illegal migration and the need to implement the Readmission Agreement. For migrants who do not want to stay in this area, opening EU borders would be the only solution.

3. RESULTS AND DISCUSSION

3.1. Western Balkans route

Migrations across the Mediterranean to Europe are not a new phenomenon, but the latest ones are numerically the largest. Unfortunately, that route was fatal for a large number of people, where, according to Amnesty International, 23,000 migrants lost their lives in the last 15 years. IOM has increased the number to as many as 46,000 since 2000 and to 60,000 over the past 20 years (Ghosh, 2018). It had been necessary to find a more benign route for movement because the road through North Africa to Italy was longer and riskier, and the number of migrants from Syria was on the rise. Thus, migrant flows were directed across the Balkan Peninsula, which acts as a corridor between East and West, and the route was shorter, safer, and more cost-effective (Bobić, Šantić, 2018). It was the only viable route for the mass influx of migrants from the Middle East and Africa. According to the UN statistics, of the nearly one million refugees in Germany in 2015, 80% took this route (Cocco, 2017). Western Balkan countries¹ represented a transit area and an emigration origin for a large number of people due to ethnic cleansing in the 1990s. The Balkan migration route has become significant since 2012, when Schengen visa restrictions were eased for Albania, Bosnia and Herzegovina, Montenegro, Serbia, and Northern Macedonia (Fig. 1)².

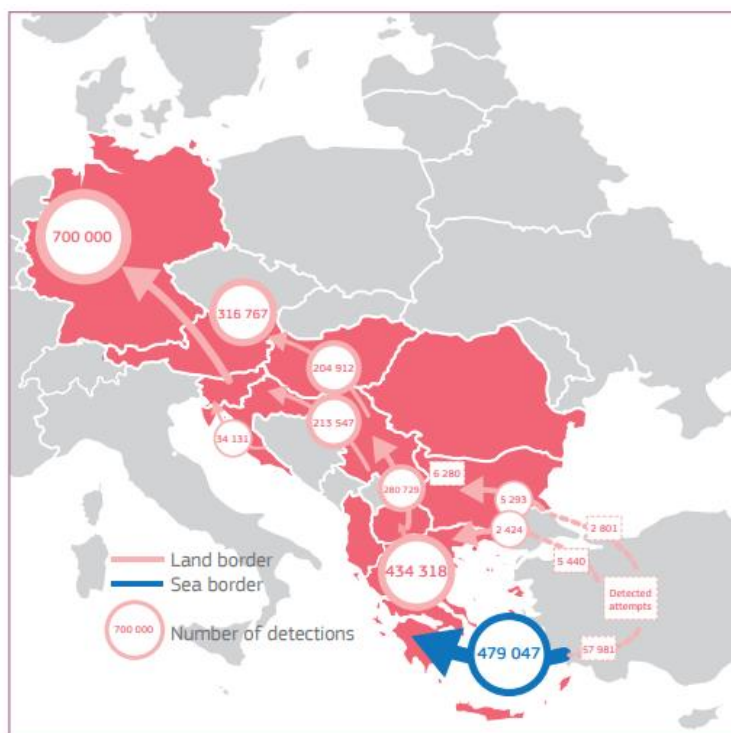


Fig. 1 – Western Balkans route (Source: European Commission, 2015).

¹ Albania and the countries within the former SFRY.

² <https://europeanwesternbalkans.com/2017/02/22/balkan-migration-route-ongoing-story/>.

The entire burden of migration during 2015 fell on two countries: Northern Macedonia and Serbia. In mid-2015, the number of illegal migrants increased, and the overall situation was accompanied by the authorities' poor attitude towards migrants. The Balkan states emphasized that their territories were only a transit area for this population. After Hungary erected border fences with Serbia and Croatia, these countries focused on transporting migrants north to Croatia as quickly as possible to avoid responsibility for them. The Agreement between Serbia and Croatia led to having six to seven trains being organized per day, enough to transport 7,000 people. In November 2015, in an attempt to start managing and reducing flows, the Serbian and Macedonian governments passed a law that enabled migrants to register, seek asylum upon entry, and obtain a 72-hour temporary residence permit. Croatia, Serbia, and Northern Macedonia introduced border controls that allowed only migrants from Syria, Iraq, and Afghanistan to pass, which later became problematic. Serbia and Northern Macedonia also had to adopt EU-style asylum laws as part of accession negotiations, since they are candidates for membership. If one state adopted the restrictions, others would quickly follow their example in order to avoid liability for captured migrants. This created a domino effect (Greider, 2017).

Visegrad Group³ advocated a complete halt to the entry of migrants into Europe, which further affected the agreement on a common solution. Two conflicting approaches have taken shape in the EU on how to solve the crisis. The German proposal, endorsed by most EU and EC member states, which calls for migration management through an agreement with Turkey, has been challenged by the Visegrad Group's proposal to close borders completely along the Western Balkans route. Restrictions increased in early 2016 and the Schengen area was threatened for the first time. Austria and Slovenia have joined the block that supports closing borders along the Western Balkan route. Austria and Germany have started limiting the number of migrants, saying that only those seeking asylum in Austria and Germany will be allowed to enter, so Slovenia and Croatia have adjusted their policies accordingly. The steady influx of migrants and growing dissatisfaction with some EU members over resolving the crisis with Greece have accelerated calls to strengthen security along the Macedonian-Greek border. The Macedonian construction of the second fence along the Greek border was supported by the Visegrad Group on February 8, 2016, which had previously sent additional police units to that country, while Austria, Serbia, and Croatia had done the same. The EU-Turkey Summit, held on March 18, 2016, resulted in a broad agreement that was supposed to restrain the flow of migrants across the Aegean Sea, returning those who had just crossed into Greece to Turkey. The route was closed in early March 2016, although German Chancellor Angela Merkel was against it. Slovenia announced it would close its border the next day (fully in line with the Schengen Border Act) and the other three Western Balkan countries soon followed suit (ŠeloŠabić, Borić, 2016). In April 2016, an Agreement between the EU and Turkey entered into force. In return, the EU agreed to give Turkey €6 billion and expedite visa liberalization for their citizens. Northern Macedonia responded to the deal by effectively closing the Greek border, re-launching the restriction (Greider, 2017).

During the first eight months of 2017, 132,000 migrants came to Europe, which is less than half the number of migrants in the same period in 2016. According to the data of the Migration Centre for Europe, 118,500 migrants came by sea, and only 6,000 by the Balkan route in 2017. About 2,400 human casualties were registered during transport by sea. In 2016, about 388,000 migrants entered Europe, including 5,100 who died during transport by sea. Regarding this period, there was a decrease of migrants along the Balkan route through Turkey, the movements being directed by sea route to Italy, Greece and other European Mediterranean countries (Petrović, Bukvić, 2017).

After the shutdown of the Western Balkan route, space was opened for illegal migration, as well as for the operation of criminal networks, with a special emphasis on smuggling and even human

³ The Visegrad Group (V4) consists of the countries: Poland, Hungary, the Czech Republic and Slovakia. The alliance was formed by Poland, Hungary and the former Czechoslovakia in 1991 to work more closely together and better prepare for planned EU accession. The group was named after the Hungarian city of Visegrad.

trafficking. In 2017, Bosnia and Herzegovina encountered a mass illegal entry of migrants onto its territory, and the trend of illegal entry intensified in 2018 and 2019. The COVID-19 pandemic affected the significant reduction of illegal migration movements on the European routes in 2020 from the second half of March to June, but from June 2020, the Western Balkan route became active again (Atlantic initiative, 2020).

The migrant crisis has highlighted a lack of solidarity and willingness among the EU members to share responsibility for providing assistance and caring for people in need. Even the policies and discourses of the resovereignization of nation states have been renewed, right-wing political populism has strengthened, and the need to defend European culture and the “fortress of Europe” before the invasion of “others” has been emphasized (Bobić, Šantić, 2018). Migrants certainly do not want to stay in the Balkans, primarily because these countries cannot provide normal living conditions for refugees and migrants, nor is the current economic situation sufficient to offer jobs. For the Balkan countries, proving themselves in the migrant crisis and dealing with all the challenges can be an additional reason for improving relations with the EU and an additional incentive in the negotiations. On the contrary, some believe that EU policy shortcomings in the region have been demonstrated. The EU did not offer long-term solutions to the Western Balkans, but its policy was in some ways contradictory – they offered help, and tightened control.

3.2. Migrants in Bosnia and Herzegovina – number and structure

Bosnia and Herzegovina is located in Southeast Europe, in the central part of the Balkan Peninsula. It borders the Sava River to the north, and the Adriatic Sea to the south. Bosnia and Herzegovina has a unique state territory in Southeast Europe between: the Sava River in the north, the Adriatic Sea in the south, the Korana and the Una River in the west and the Drina in the east. It borders the Republic of Croatia to the north and west, Serbia to the east, and Montenegro to the southeast and south. It covers an area of 51,129 km² with 3,531,159 inhabitants. The capital is Sarajevo (Nežirović, Sivac, 2018). The question arises as to why migrants avoided and bypassed Bosnia and Herzegovina during 2015. Although it is estimated that around 1.5 million people took the Western Balkan route, only a few hundred passed through Bosnia and Herzegovina. The residents joked that life in the country was so miserable that even people fleeing humanitarian crises did not want to stay there. Migrants moved along routes that others had successfully used before them (Global Initiative against Transnational Organized Crime, 2020). With the shutdown of the Western Balkan route, Bosnia and Herzegovina has become an inadvertent stop for these people since 2016. Migrants and refugees use two routes to enter the country illegally. Most of them come from Serbia. The second route starts in Greece and goes through Albania and Montenegro to Bosnia and Herzegovina (Stanicek, European Parliamentary Research Service, 2019) (Fig. 2).

According to the UNHCR, the total number of migrant arrivals in the period from January 1, 2018 to January 31, 2019 was 24,799. In October 2018, the largest number of arrivals was recorded. At that time, 5,057 new people were registered, comparing to October 2017, when the number was 105. The figure declined in November 2018 to 1,931, representing the biggest change between two consecutive months in that year. The largest number of migrants entered from the territory of Serbia, mostly in an illegal way through unofficial border crossings. Authorities discovered the arrival of 53,263 migrants, asylum seekers and refugees between January 1, 2018 and December 31, 2019, which is an average of over 2,200 per month (Fig. 3).



Fig. 2 – Migrant routes through Bosnia and Herzegovina
(Source: Global Initiative against Transnational Organized Crime, 2020).

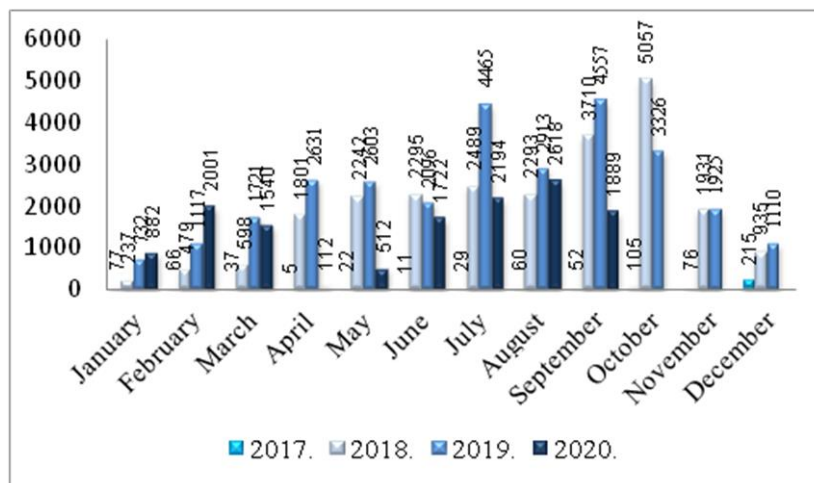


Fig. 3 – Movements in the number of newly arrived migrants in Bosnia and Herzegovina from 2017 to September 2020. (Source: UNHCR, 2017–2020).

The institution of the Human Rights Ombudsman of Bosnia and Herzegovina points out that the state is facing the process of the mixed-type migrations. This means that there are foreigners who are looking for better living conditions, i.e. economic migrants (citizens of Pakistan, Iran, Iraq, Morocco, Tunisia, Algeria, Libya, Afghanistan), and foreigners seeking asylum/persons under international legal protection (Syria) (Hodžić, 2020). At the end of 2019, the largest number of asylum seekers and migrants were from Pakistan 46%, Afghanistan 17%, Iraq 9%, Egypt 6%, Iran 4%, Syria 4%. The proportion of migrants from other countries was 15%. At the end of September 2020, the most represented were Pakistanis (31.9%) and Afghans (30.7%). About 70% were men, 22% families with children, 10% girls and women, and 7% unaccompanied and separated children (UASC) (Fig. 4).

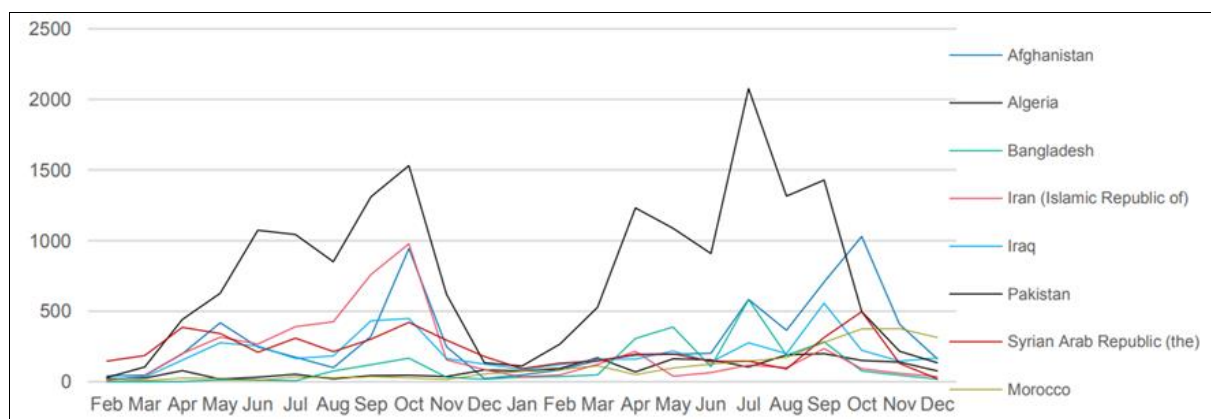


Fig. 4 – Countries of origin of migrants and refugees from February 2018 to December 2019. (Source: UNHCR, December 2019).

The structure of citizenships among illegal migrants shows that persons entering illegally are mostly economic migrants and that the trend of economic migration is increasing. Compared to the first two months of 2020, from mid-March to June 2020, there was a decrease in the number of illegal entries of migrants into the territory of our country. In 2018, the total number of 23,902 illegal migrants was reported to the Service for Foreigners' Affairs (SFA). Of that number, 22,499 persons expressed their intention to apply for asylum. An application for asylum was submitted by 1,567 or 7% of the total number of expressed intentions to apply for asylum. In 2019, the total of 29,302 illegal migrants was reported, which is an increase by 23% compared to 2018. Out of the total of 29,302 illegal migrants, 27,769 persons intended to apply for asylum. Asylum applications were submitted by 784 persons or 3% of the total number of persons who expressed an intention to apply for asylum. Compared to 2018, the number of expressed asylum intentions increased by 23%, while the number of submitted asylum applications decreased by 50% (Atlantic initiative, 2020). According to IOM Flow Monitoring, in 2019 there were 29,196 registered migrants, in 2020 – 16,160, and in 2021 (by February 14th) – 1,062. From 1 January 2015 to 14 February 2021, a total of 71,230 migrants and refugees passed through Bosnia and Herzegovina. According to the UN High Commissioner for Refugees, in 2020 there were 7,200 migrants, of whom 660 were children, including 450 unaccompanied minors. Just over 5,000 were accommodated in eight reception centres. The actual number of migrants is much higher than the registered ones. According to the IOM, in 2018 24,067 migrants were registered, of which only 6,540 were accommodated in official reception centres. In 2019, 29,196 were registered, and 24,078 were accommodated in the centres. The number of migrants four times surpasses the official capacity of all migrant centres, which means that there is a large fluctuation in the camps because people move across the border illegally. This may suggest that some migrants find temporary shelter outside official camps. Migrants were accommodated in nine reception centres. Three are located in the Sarajevo Canton (SC) – Temporary Reception Centre (TRC) Ušivak in the municipality of Hadžići, TRC Blažuj in Ilidža and Asylum Centre Delijaš in Trnovo and one in the Herzegovina-Neretva Canton (HNC) – Refugee Reception Centre Salakovac. At the beginning of 2020, there were five of them in the Una Sana Canton (USC) – TRC Borići, TRC Bira, Emergency Tent Camp (ETC) Lipa, TRC Miral, TRCSedra. Complications occurred at the beginning of 2018 with the influx of a larger number of migrants and refugees to this area. Existing capacities are not enough, therefore people sleep in makeshift tents or abandoned buildings without access to basic services. Many are without adequate clothing and footwear, without access to safe and dignified shelter, water, sanitation, electricity, heating, with limited access to food and drinking water. During the winter, Bosnian sites often publish photos in which migrants maintain personal hygiene by swimming in cold rivers. The

accommodation of minors is also a problem. During 2020, in the area of Bihać and Velika Kladuša there were more than 500 minors, of which 400 stayed in reception centres, while the rest were in the street or in abandoned buildings. On several occasions, the competent state authorities were asked to get involved in solving the problem, but, quite expectedly, it resulted in no reactions. The practice so far has shown that underage migrants are often victims of physical and even sexual violence (Fig. 5)⁴.

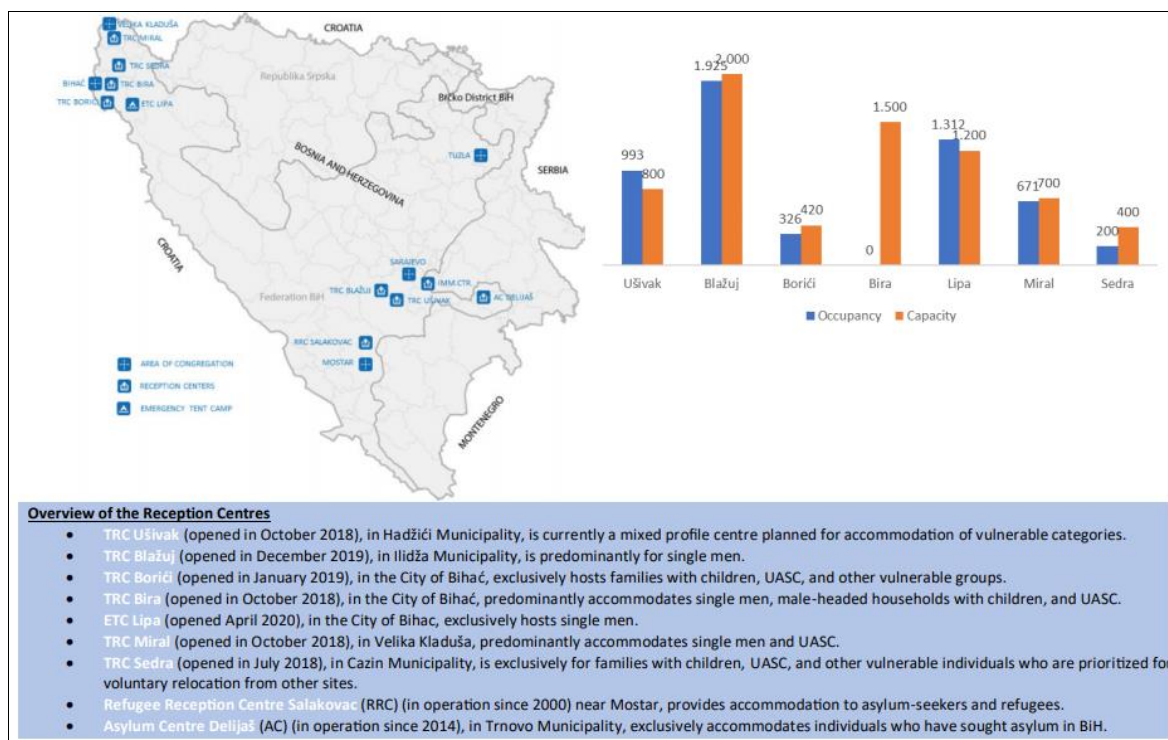


Fig. 5 – Review of reception centres (Source: UNHCR, September 2020).

In the Balkans, negative attitudes towards migrants began to develop over time, which partly led them to come to Bosnia and Herzegovina, being predominantly Muslim and with the population remembering the recent war, so that, at least in the Federation of Bosnia and Herzegovina (FBiH), people showed solidarity with migrants and welcomed them. However, migrant reluctance began to appear among Bosniaks as well, especially in the north of the country (Rekšć, 2019). According to the last census of 2013, Bihać had 56,261 inhabitants. In reality, this number is significantly lower, especially considering emigration to more developed parts of Europe. According to estimates in 2019, about 20% of the total population of Bihać were migrants. In recent years, the local population has held protests on several occasions. At the end of July 2018, representatives of the authorities of Bihać, Ključ, Bosanski Petrovac, Cazin and Bužim held a peaceful protest due to problems with migrants in the USC area in front of the building of the institution of Bosnia and Herzegovina in Sarajevo.⁵ In Bihać, on August 13, 2018, starting at 12 o'clock, peaceful protests were held with the motto "Minute to 12" pointing out that they were angry with the state. On October 20, 2018, more than a thousand residents of Bihać gathered in the town square requesting for an urgent reaction. About 200 migrants tried to enter Croatia on October 22, 2018, through the Maljevac border crossing in Velika Kladuša, but they did not succeed, and then that crossing was blocked on October 24. The day before that, the

⁴ <https://www.nezavisne.com/novosti/gradovi/Problem-USK-Nedostaje-smjestaj-za-maloljetne-migrante/597494>.

⁵ <https://istinomjer.ba/migrantska-kriza-u-bih-godine-prebacivanja-odgovornosti/>.

USC police had not allowed them to disembark from the FBiH Railways train in Bihać because a decision was made to prevent the arrival of migrants in the canton due to the occupancy of accommodation facilities. In November, about 150 migrants travelling by train from Sarajevo to the USC were prevented from leaving. Most were returned to Sarajevo, seven migrants (women and children) were transferred to migration centres. The people of Bihać also protested on June 16, 2019, due to the security situation. During 2020, citizens also gathered to express dissatisfaction. One such gathering was on August 29, 2020, where the messages “What about our human rights” and “The state, protect its citizens!” were sent.⁶ Residents of the Purići village in Velika Kladuša went out in the streets in August. The locals took matters into their own hands and organized checkpoints for returning buses with migrants. On the last day of 2020, almost a thousand people in Bihać protested against the decision to resettle migrants in Bira. The situation in the area of USC, but also in the rest of the country, escalated when migrants killed Jasmin Berović in Otes on November 17, 2020 and seriously injured two others. This caused a great revolt of the residents who organized three-day protests, the first in Ilidža, the second in Hadžići and the third one in Otes. A small group of residents gathered on November 23, 2020, near the migrant camp in Blažuj. They demanded that refugees and migrants be restricted from moving after 5 pm, that the camp be fenced off and that stricter police control be introduced.

A big conflict between migrants was recorded in Blažuj on January 20, 2021, and then the migrants attacked the police. The cause of the conflict has religious elements, namely one Iranian uttered derogatory words about the Prophet Muhammad as followed by a conflict with Afghans and Pakistanis.⁷ IOM workers tried to relocate the migrant to another camp, which disturbed public order and peace, and consequently led to a conflict between the migrants and the police. It is estimated that as many as 2,000 migrants stoned police officers. In those riots, two police officers, one IOM member, were injured, two police vehicles were overturned, about 20 cars and the centre premises were destroyed. The SFA issued a measure of expulsion from the country for six participants in the riots. During the search of the camp, 17 people were detected as being perpetrators of criminal acts, so they would be expelled from the country. A large number of fights were recorded among migrants in the streets and camps during these years. All this has meant that the local population no longer feels safe in their homeland. The security situation was not satisfactory even before the migrant crisis, so it deteriorated further. Migrants often attack people, steal mobile phones and money, break into houses. SC and USC receive reports and complaints every day that they are driving under the influence of alcohol and drugs. The Minister of the Interior of SC Ismir Jusko accuses migrants of the increase in crime. However, in the period January-September 2020 in the area of SC, according to the official records of the Police Administration of the Ministry of Internal Affairs of SC, 3,433 felonies were registered, and 88 of them were committed by migrants.⁸ There are records of cases where migrants are the victims of looting.

3.3. Causes of the migrant crisis in Bosnia and Herzegovina

The migrant crisis showed many weaknesses in the functioning of the state, which, honestly, has always existed, but came to the fore in this period. Weak institutions and insufficient accommodation became evident. Institutions and the political scene in Bosnia and Herzegovina are characterized by enormous instability due to ethnic divisions. ‘Bosnia and Herzegovina is constructed as a loose union of semi-autonomous administrative bodies sharing limited common functionalities, but operating as a *de facto* poorly implemented consociational power-sharing agreement among the former belligerents. The entire territory of Bosnia and Herzegovina remains in the state of a frozen conflict between the

⁶ <https://ba.n1info.com/vijesti/a458297-veliki-protest-u-bihacu-gradjani-traze-rjesenje-problema-migranata/>.

⁷ <https://www.klix.ba/vijesti/u-neredima-u-blazuju-ucestvovalo-2-000-migranata-sukob-zbog-pogrdnih-rijeci-o-poslaniku-muhammedu/210121031>.

⁸ <https://zurnal.info/novost/23545/od-3.433-krivicna-djela-tek-88-su-pocinili-migranti>.

competing nationalistic ideologies, where the return to hostilities, although unlikely, is always possible and that the overall situation is overprinted upon the general situation in the realm of crisis-management' (Korajlić, Smailbegović, 2020, p. 21). The Aliens and Asylum Laws were revised in 2015 and 2016 to bring them in line with the European standards. In March 2016, the Council of Ministers of Bosnia and Herzegovina adopted a strategy and action plan for migration and asylum for the period 2016-2020. The strategy was prepared in light of the implementation of the Stabilization and Association Agreement (SAA) with the EU, which entered into force in June 2015. However, the SAA has created new obligations in the area of migration and asylum, and the authorities have poorly prepared for such a major challenge. Bosnia and Herzegovina boasts the most complex political system. It has three or five presidents, 14 separate parliaments, hundreds of deputies and 136 appointed ministers! After the General Elections held in October 2018, the current BiH Presidency consists of: Milorad Dodik, Serbian member of the BiH Presidency, Željko Komšić, member of the BiH Presidency from the ranks of the Croatian people, and Šefik Džaferović, Bosniak Member of BiH Presidency.

The state consists of two entities, the Federation of Bosnia and Herzegovina (FBiH), which consists of 10 cantons, and the Republic of Srpska (RS), and the Brčko District. Both entities have their own presidents. The migrant crisis has strained relations between Bosnia and Herzegovina and neighbouring countries, relations between the entities, relations between cantons, and criticism has been directed at the EU and the IOM.

In 2018, the Organization for Security and Co-operation in Europe (OSCE) announced that the Border Police of Bosnia and Herzegovina, SFA, local governments, local police forces, prosecutors and courts, health centres, social welfare centres, NGOs, and informal volunteers' groups and religious communities were the main actors. For each participant, the OSCE assessed the responses they provided to the situation and the gaps in those responses, leading to the conclusion that there was poor coordination between them and a general unwillingness to resolve the situation. When it comes to law enforcement agencies, e.g. the SFA, the border police and the local police force, have a lack of human and material resources, as well as appropriate indications and training on accomplishing their tasks. Regarding the provision of health care and other services to people on the move, health care centres and social work centres are unable to provide adequate support, which has been taken over by NGOs and informal groups of volunteers as "major providers of direct humanitarian aid". However, the activity of both groups is limited by a lack of resources and a lack of coordination with other parties. The OSCE did not take into account international organizations and the Institution of Human Rights Ombudsmen of Bosnia and Herzegovina in the assessment (Deidda, 2020).

The lack of consensus on what to do at the state level, especially the RS leadership's refusal to improve border management and the opening of humanitarian centres, has placed the main burden of a humanitarian response on the FBiH authorities, especially the USC and the city of Bihać (Global Initiative Against Transnational Organized Crime, 2020). Although the EU has demanded that migrants be evenly distributed throughout the country, reception centres are located only in the FBiH. More precisely, migrants are settled only in areas where the majority of the population is Bosniak.

Milorad Dodik had successfully used the influx of migrants in the 2018 election campaign, emphasizing anti-migrant narratives in which he spread stories that this phenomenon was a part of a grand plan to increase the Muslim population. Certainly, these claims are fabricated, especially when one considers that migrants do not want to stay in the Balkans. Dodik's strategy is simple and clear. Instead of facing the challenges posed by the influx of refugees, it is easier to explain that there are no problems, while spreading an atmosphere of fear against the Islamic world and Bosniaks, diverting attention from the harsh reality, prolonging the economic collapse and inefficiency of state institutions. (Rekšć, 2019). The Croatian side has the same attitude. The president of the largest Croatian party in Bosnia and Herzegovina, Dragan Čović, has expressed opposition to the distribution of migrants across the country.

Already in February 2018, the existing accommodation capacities in Delijaš and the Immigration Centre in East Sarajevo were almost overflowing. The camp Vučjak, not far from Bihać, was opened in June 2019. The UN mission then expressed dissatisfaction because the camp had not been equipped according to international standards, basic living conditions had not been provided, there were no toilets, it had been located near minefields, and there had also been a risk of fire or explosion due to the possible presence of methane being underground given that there used to be a landfill, which means that the location posed a significant health and safety risk. The centre was closed after 6 months and the migrants were transferred to Ušivak and Blažuj. In 2019, the authorities in Bihać proposed the relocation of migrants from Vučjak and the Miral and Bira camps to the uninhabited location of Medenopolje, Bosanski Petrovac. This was opposed by the authorities of Bosanski Petrovac, where the majority of the population is Serb. Bira was closed on September 30, and the closing of the Lipa camp was announced for December 18, 2020. This was prolonged, however, because the authorities and the IOM did not find an alternative. It was proposed to move it to the centre of Bira, which the local authorities flatly refused. At the announced closure on December 23, a large fire broke out in the camp and 1,359 migrants in the December deficit remained under the open sky.⁹ At the end of December 2020, the relocation of about 700 migrants from an improvised tent settlement in the village of Lipa began. The Minister of Security of Bosnia and Herzegovina Selmo Cikotic announced that they would be relocated to the former Armed Forces of Bosnia and Herzegovina facility in Bradina, Konjic, HNC, but this was opposed by local authorities and locals.¹⁰ More absurdly, the HNC government and the mayor of Konjic claimed to have learned of the plan on the day of the relocation, and the Minister of Finance and Treasury Vjekoslav Bevanda said there was no decision by the Council of Ministers to relocate to the area. Citizens gathered in Bradina and thus blocked their arrival, and migrants spent the night in buses. Afterwards, it was decided that the Armed Forces would set up tents at the Lipa camp site to accommodate homeless migrants who found themselves in the area.

Donations and their spending raised a lot of dust. The first million euro in aid was awarded by the Council of Europe Development Bank for equipping facilities and accommodating about 400 people in the former Ušivak barracks. Despite great efforts and negotiations between the EU and local authorities, no agreement was reached to open additional reception facilities and they continued to close existing ones. The EU provides technical and financial support to Bosnia and Herzegovina in the overall management of migration, including the asylum system and reception capacities, as well as strengthening border management. From the beginning of 2018 the EU has provided more than €88 million. On January 3, 2021, the European Commission announced an additional €3.5 million in humanitarian aid¹¹, and in October 2020 requested the urgent approval of about €25 million. However, the question arises as to how it is possible for migrants to live in such inhumane conditions despite significant donations.

The distribution of money was disputable, which was pointed out by the then Minister of Security, Dragan Mektić, in 2019. Authorities expressed dissatisfaction because EU money is being spent without the knowledge of state institutions and demanded an end to the practice of circumventing them. Zoran Ivančić, from the Centre for Advocating Civic Interests, stated that the money is mainly spent on the functioning of those organizations, and at least on things related to the organizations existence, while Denis Hadžović, from the Centre for Security Studies, pointed out the non-establishment of an effective mechanism and strategy for resolving the crisis, as well as the lack of mutual coordination between the institutions, the reasons for bypassing the government and the involvement of the IOM, the Red Cross and other bodies.¹² In January this year, IOM published a

⁹ <https://www.dw.com/hr/iom-se-povukao-iz-kampa-lipa-a-1359-migranata-je-pod-vedrim-nebom/a-56045359>

¹⁰ <https://www.slobodnaevropa.org/a/31024727.html>

¹¹ <http://europa.ba/?p=71270>

¹² <http://css.ba/ajb-gdje-su-otisli-novci-iz-eu-za-migrante-u-bih/>

detailed report on the money received and what it was spent on. Starting June 2018, the EU remitted €76,851,217 for IOM or via IOM, and by December 2020, €51,560,327 had been spent.¹³

The migrant crisis has also shown the weaknesses of borders and existing strained relations with neighbours. The OSCE's 'Assessment: Migrant and Refugee Situation in Bosnia and Herzegovina' noted the apparent lack of adequate human resources, such as translators and cultural mediators, in the Border Police. Different answers regarding the proper procedure and legal protocols indicate the lack of clear operational instructions by the Ministry of Security of Bosnia and Herzegovina, especially regarding the treatment and interviewing of migrants, and especially potential victims of human trafficking. Currently, the country has only one police officer for every 30 km of border. One of the proposals for reducing the number of illegal migrants was the army going to the border with Serbia or accepting the offer of Frontex to bring their forces to the border. This was proposed by Željko Komšić and Šefik Džaferović at a presidency meeting in June 2019, but Milorad Dodik opposed the proposal because it would separate ethnic Serbs living in the RS from those in Serbia. Dodik also recently vetoed the signing of a status agreement with Frontex (Global Initiative Against Transnational Organized Crime, 2020). Migrants have been caught crossing the Drina River on several occasions during these years. The border between Serbia and Bosnia and Herzegovina is 363 km long, of which the Drina is 261 km, and comprises of 11 official border crossings, but the terrain offers numerous opportunities for illegal crossings. Since 2017, this route has been used for smuggling migrants. People without hesitation decide to smuggle migrants due to negligible penalties and symbolic fines (Global Initiative Against Transnational Organized Crime, 2020). Strengthening and establishing a more efficient system of state border protection in river basin districts is necessary, especially in order to prevent deaths. The south-eastern route through mountainous areas is also difficult to manage and is convenient for smuggling.

The USC is the biggest victim of the migrant crisis bearing the biggest brunt of the border with Croatia and the EU. Bosnia and Herzegovina borders Croatia over 932 km, so it is not clear why migrants move only towards Bihać and do not cross the border at other points. Assumingly, they follow well-trodden routes. During 2020, members of the USC Ministry of the Interior registered 7,210 migrants who were illegally transferred to the territory of the country from the direction of Croatia. A year earlier, that number was slightly higher, meaning that at least 15,000 migrants from EU territories had been illegally transported to Bosnia and Herzegovina. EU countries return migrants to each other on the basis of an interstate Readmission Agreement. The Readmission Agreement is an international agreement relating to the procedures, on the basis of reciprocity, of States returning persons who are not nationals of those States and who are in irregular situations moving from their country of origin or from the country of transit. Croatia mostly smuggles migrants illegally. The readmission process is carried out exclusively by the SFA of Bosnia and Herzegovina. Based on the Readmission Agreement, Croatia transferred only 783 people to Bosnia and Herzegovina in 2019. All others were illegally transported to the USC area. At the same time, Bosnia and Herzegovina returned a total of 332 people to Serbia in the past two years, based on the readmission agreement.¹⁴

Unfortunately, in this 'game', a large number of migrants bear the effects of the cruelty of politics directly. At the border with Croatia, as some believe, international rights are being knowingly violated. Croatian police beat migrants and refugees, take off and burn their clothes, destroy things, take money and mobile phones, keep them locked in garages and containers without access to food, water and toilets, shoot and turn dogs onto them. They are even being sexually abused. Croatia rejects all these accusations and points out that they are only protecting their border, doing everything

¹³ <https://www.klix.ba/vijesti/bih/iom-objavio-koliko-je-novca-dobio-od-eu-za-migrante-u-bih-i-na-sta-je-novac-potrosen/210113113>.

¹⁴ <https://www.istraga.ba/zvanicni-dokumenti-dokazuju-iz-sengen-zone-u-bih-za-dvije-godine-ilegalno-ubaceno-preko-15-hiljada-migranata/>.

according to the law. The Croatian police were embarrassed in November 2019 when two Nigerian students, who participated in the Zagreb World Intercollegiate Championship, were caught and transferred across the border into the woods in the Bihać area. On January 30, 2021, they prevented the entry of MEPs who came to investigate the situation on the border between Bosnia and Herzegovina and Croatia, after numerous warnings from civil society organizations and institutions about violence and human rights violations. The reason for Croatia's excessive use of force is most likely hidden in the Schengen accession process, as pointed out by the Human Rights Watch (2019) and international media, such as The Guardian (2019).

An additional problem is undocumented migrants. This was also written about in 2015. Migrants destroyed their documents in order for the EU to accept them as refugees. They thought that in this way they would get asylum in Germany faster. Most of them declared themselves to be Syrians, but had no documents. The situation is similar today in Bosnia and Herzegovina. Information was circulating in Bosnia and Herzegovina that of those who do have documentation, large number of them have the same name and surname – Muhamed Ali.

3.4. The solution to the migrant crisis

The migrant crisis has caused an avalanche of problems in the country, which need to be solved as soon as possible. Even after so many years, Bosnia and Herzegovina does not have an adequate strategy. The authorities have been constantly shifting responsibility between themselves. This issue should be addressed at state level, not at cantonal level. Institutions have shown that they are not up to such a substantial task. Representatives of the authorities and international organizations have on several occasions stressed the need to protect and strengthen state borders. The RS and Croat-majority municipalities have not given up on rejecting proposals to deploy migrants and refugees throughout Bosnia and Herzegovina. The ruling people in RS are only advocating the deportation of migrants to their countries of origin. The opening of new camps in these areas would certainly reduce the pressure on the USC and SC, and thus provide better conditions for migrants. However, these are short-term strategies that would not solve the whole situation.

At a meeting between representatives of the Ministry of Security of Bosnia and Herzegovina and Enlargement Commissioner Oliver Varhelyi, the commissioner announced that €1.5 million would be set aside for the procurement of border protection equipment. The Commissioner was acquainted with the measures taken by Bosnia and Herzegovina in order to better control and monitor the border, prevent illegal migration and humanitarian care for illegal migrants. The Ministry of Security has started activities to connect all institutions and security agencies in accordance with their competencies in terms of border protection, preservation of public order and peace and protection of personal and property security of citizens, as well as strengthening vertical and horizontal coordination of all competent structures for illegal migration management as complete controls of movement and residence as possible in relation to the status of foreigners who have illegally entered the territory of the state. Full cooperation and coordination with all international organizations in Bosnia and Herzegovina involved in activities with foreigners who entered the country illegally is defined and achieved, and work is being done to expand and provide adequate accommodation in order to relocate migrants outside populated and urban areas in specially constructed facilities. One of the priorities is intensifying cooperation with prosecutors' offices and courts in order to prosecute persons responsible for smuggling migrants.

The OSCE (2018) made specific recommendations to each participant involved in resolving the crisis, and several general recommendations were also highlighted: strengthen the ability of relevant government stakeholders to respond to the migrant and refugee situation, including potential trafficking victims and especially in locations with high rates of migrants and refugees; tailor support

to migrants and refugees by ensuring there is a sufficient presence of trained and qualified staff including interpreters, cultural mediators and female officials; strengthen data collection and data management (including sex and age disaggregated data) to ensure a more effective monitoring of the situation and contribute to the development of evidence-based strategies/contingency plans; establish effective communication channels to ensure that information is properly disseminated at the local, cantonal, entity and state levels; develop and disseminate clear guidelines and standard operating procedures and strengthen referral mechanisms, to allow relevant stakeholders to more effectively address the needs of migrants and refugees in vulnerable situations; organize regular co-ordination meetings with international organizations, embassies and the main active NGOs to discuss the latest developments and funding needs.

At the beginning of 2020, the then Minister of Security, Fahrudin Radončić, put forward his plan to deport 10,000 migrants, announced the closure of migrants who hide their personal identity documents, but Radončić resigned at the beginning of June 2020 due to the situation caused by the migrant crisis. Later, Bosnia and Herzegovina and Pakistan established a Draft Readmission Agreement, which confirms the readiness to engage in international actions to prevent illegal migration. In addition to Pakistan, work is underway to initiate readmission agreements with seven other countries with the largest number of migrants represented in Bosnia and Herzegovina. EU officials often criticize Bosnia and Herzegovina, so Commissioner Ylva Johansson, in charge of internal affairs, officially warned Sarajevo in January this year that by inadequately resolving the problem of migrants, indecision and even incompetence, they 'further erode the reputation of Bosnia and Herzegovina every day'.¹⁵ A deeply dysfunctional and fragmented state, it failed to generate a cohesive response due to the complex and fragmented structure of the level of government, so the need for EU intervention through IOM arose. Bosnia and Herzegovina had to respect the EU strategy primarily because of the promise of membership. The EU appears to have contradictory targets for Bosnia and Herzegovina and the wider region. On the one hand, it is the transformation of the region into a hotbed of migrants and refugees where people on the move can be dealt with before they arrive in the EU, and on the other hand, a long-standing post-war stabilization goal. The goal of stabilization has been set aside mainly to take advantage of the fragility of the political system to implement the externalization of migration control. Such fragility prevents the state from taking on the role of 'filter zone' more independently. Moreover, internal instability and conflicting relations between the countries of the Western Balkans would be negative for the EU in the long run, because in the worst-case scenario, in the event of a new war, it would mean having a source of unwanted migrants at the door. Therefore, the EU strategy seems to be extremely short-sighted, even considering the EU's own interests, in addition to being unjust and even deadly to those who suffer its immediate consequences (Deidda, 2020).

Igor Pellicciari, a professor of International Relations at the University of Urbino, published an analysis of the migrant crisis in Bosnia and Herzegovina entitled 'Eternal Migrants, Victims of Assistance'. In his paper, he explains that citizens fear refugee camps becoming institutionalized, and thus long-term solutions based on the Palestinian, Jordanian and Lebanese models, turning the area into 'human repository for migrants that the EU does not want to take and is willing to pay the UN to manage them on the territory of Bosnia and Herzegovina'. Citizens are definitely becoming increasingly resentful of EU policy, calling it hypocritical. The fact is that migrants do not want to stay on this soil, so the only way to solve the current crisis is to open the EU's borders. Incompetent politicians, obviously not taking the current situation seriously, rub salt into the wound of the local population. Selmo Cikotić commented on readmission requests and many other challenges: 'I have heard many interesting and sexy ideas about migrants being returned to their countries of origin.

¹⁵ <https://www.politicki.ba/news/read/14520>.

However, to do that, you need a lot of assumptions.’ Stating this he shocked everyone, because he sees an overall positive aspect. Due to reduced tourism, there is an increased consumption of many goods with the presence of migrants who buy and spend.¹⁶

4. CONCLUSIONS

Based on the analysis of the overall current situation in Bosnia and Herzegovina, it can be concluded that things are getting out of control day by day. They choose the Western Balkan route because it is easier and safer than the one through North Africa to Italy. The sticking point is primarily the political system where certain competencies are at the state level, some at the entity level, and some at the level of cantons and municipalities/cities, but they all point fingers at each other. Issues of the migrant crisis need to be addressed at the state level, although this is unlikely to happen. The situation is further exacerbated by the coronavirus pandemic. The migrants don’t have any kind of medical protection and care, so their lives are further impacted by the pandemic. The RS entity explicitly advocates only the deportation of migrants. Also, it is too optimistic to expect that in the future the EU will finally open its doors, which is an obvious indicator of the hypocrisy of its policy. There are no indications that they will accept migrants any time soon. However, migrants and the local population suffer the most because the authorities must act in accordance with EU principles if they want Bosnia and Herzegovina to become a future member of the Union. Although advocating for the deployment of migrants in other cantons and in both entities, the team would not completely resolve the crisis but improve existing conditions in reception centres and many people now living in the streets would get at least a temporary ‘roof over their heads’. By sending donations, the EU wants to show its humane side and wishes to prove that they are not against migrants. However, the situation on the ground shows otherwise. It would be easier for everyone if they expressed their clear intentions and goals. If they do not want migrants on their territory, the money from donations could be redirected to the return of migrants to their home countries. What would currently ease the crisis is enhancing controls on the eastern border with Serbia in order to prevent the entry of more illegal migrants. Rising tensions between the local population and migrants require an urgent solution. Politicians need to take a more serious approach to the problem and try to set aside national tensions. It is necessary to promptly form strategies to solve the migrant crisis, because every human being on Earth deserves a decent life and normal living conditions. The EU, but also all of us, should show solidarity with these people and ease their current situation, because as the writer Meša Selimović said, as IOM pointed out in the project of psychosocial support providing: “The world is full of accidents. I know, only ours concern us, but aren’t others also ours!?”.

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¹⁶ <https://thebosniatimes.ba/49641/pravi-migrant-na-pravom-mjestu-cikotic-cuo-sam-seksi-ideje-o-vracanju-migranata-ako-nemamo-turiste-imamo-migrante/>.

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ANALYSE MULTICRITÈRE DES DISPARITÉS RÉGIONALES EN ROUMANIE (2000–2016)

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Mots clés: disparités régionales, TOPSIS, convergence sigma, politique de cohésion, Roumanie.

A multi-criteria analysis of regional disparities in Romania (2000–2016). The analysis of regional disparities has been the subject of many articles of recherche, in particular in relation to the EU Cohesion Policy. However, many studies analyse disparities only from the perspective of Gross Domestic Product (GDP). The objective of this article is to report the evolution of regional disparities from a multidimensional approach, by comparing the evolution of economic disparities with the evolution of socio-demographic ones. We take as case study the evolution of Romanian counties (42 NUTS3 units) between 2000–2016. The TOPSIS multi-criteria decision-making method was employed for the calculation of two synthetic indices related to the economic and social development of NUTS3 units. The results show growing economic disparities. On the other hand, statistical analyses show a lack of correlation between economic performance and social development for the first part of the 2000s, followed by a gradual emergence of dependence between the two dimensions of development. Thus, during the period analysed, social development is becoming more and more associated with economic development, to the point that today this relationship is quite strong and significant.

1. INTRODUCTION

L'Union européenne (UE) a toujours conçu les disparités régionales comme étant l'un des problèmes de l'espace communautaire (y compris dans le cadre du Traité de Rome – 1957). Cependant, ce n'est qu'avec les années 1970 et 1980 que l'UE a considéré la réduction des disparités régionales comme l'un de ses objectifs majeurs (y compris dans le cadre de l'Acte Unique Européen – 1986, et du Traité de Maastricht – 1993). En fait, pour résoudre concrètement le problème des disparités régionales, l'UE lance, dans les années 1970, la première version de la politique de cohésion (Faludi, 2015), qui sera ensuite adaptée constamment aux réalités politiques et économiques de chaque cadre financier pluriannuel (Bourdin, 2014, 2020; Brunazzo, 2016). Depuis sa création, elle a été un important outil employé pour stimuler le rattrapage économique et social des régions moins développées, notamment en Europe de sud, et ensuite en Europe centrale et orientale (Pascariu et Incaltarau, 2018). Aujourd'hui, elle donne toujours la priorité aux régions qui accusent un retard dans leur développement, à savoir celles dont le PIB/hab. est inférieur à 75 % de la moyenne de l'UE (Commission Européenne, 2018). Cependant, la sélection des régions éligibles, fondée exclusivement sur l'évaluation des disparités régionales *économiques*, en utilisant un seul indicateur (le PIB/hab.), soulève des critiques de la part de ceux qui demandent une approche multidimensionnelle des disparités régionales. Ces derniers prônent l'intégration d'autres dimensions, telles que la dimension sociale ou encore démographique. Ainsi, l'accent mis sur la répartition des fonds sur la seule base du

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PIB/hab. a engendré une certaine marginalisation d'autres formes de disparités régionales dans le cadre du discours politique associé aux fonds de cohésion.

Une situation semblable caractérise la littérature scientifique. Les débats autour de la mise en place de la politique de cohésion ont toujours suscité une demande des connaissances empiriques sur l'état des disparités régionales, ce qui a engendré un nombre croissant d'études – menées par des géographes, économistes ou spécialistes en aménagement du territoire. Ainsi, les deux dernières décennies ont vu émerger des études traitant l'évolution des disparités interrégionales à plusieurs échelles, tel que l'ensemble des régions de l'UE (Monfort, 2008, 2020; Bourdin, 2013a, 2013b; Ezcurra et Pascual, 2005; Ertur, Le Gallo et Baumont, 2006; Petrakos, Rodríguez-Pose et Anagnostou, 2005), de l'Europe centrale et orientale (Bourdin, 2015; Ezcurra, Pascual et Rapún, 2007; Petrakos, 2001), ou des régions faisant partie d'un même pays (Carrascal-Incera *et al.*, 2020). Cependant, la plupart de ces approches privilégient la dimension économique des disparités régionales, en négligeant ainsi leur dimension sociale. Ceci est probablement lié au fait que l'opérationnalisation de la Politique de Cohésion et la conditionnalité d'attribution des Fonds sont exclusivement réalisées sur la base de la performance économique régionale. On sait, donc, finalement relativement peu sur l'évolution des disparités régionales d'un point de vue multidimensionnel (parmi les rares travaux on trouve ceux de Parente 2019 et Quadrado, Heijman, et Folmer 2001) et l'on dispose peu d'évidences sur les interdépendances entre performance économique et développement social au niveau régional.

Dans ce contexte, notre article vise précisément à proposer une approche multidimensionnelle des disparités régionales. Pour cela, nous prenons l'exemple de la Roumanie sur la période 2000-2016. Nous proposons de répondre à un double objectif. Le premier vise la comparaison de l'évolution des disparités économiques avec l'évolution des disparités sociodémographiques, tout en identifiant, sur la base d'une approche multidimensionnelle, les régions gagnantes et les régions perdantes. Le deuxième objectif vise une analyse exploratoire afin de tester s'il existe une association statistiquement significative entre performance économique et développement social au niveau départemental, et comment cette relation a évolué au fil du temps. L'analyse est menée au niveau du découpage départemental (NUTS3), un choix très pertinent dans le contexte spécifique roumain, où les départements forment la principale division administrative du pays. Méthodologiquement, huit variables ont été employées pour créer – à l'aide de la méthode TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) – deux indices synthétiques: l'indice de la performance économique et l'indice du développement social. Les disparités régionales ont, ensuite, été évaluées à l'aide de deux indices de sigma convergence (le coefficient de variation et l'indice de Gini). Enfin, l'analyse de la relation entre performance économique et développement social a été menée à l'aide de l'analyse statistique non paramétrique.

Le reste de cet article est organisé comme suit: la première section fournit un état de l'art sur l'évaluation des disparités économiques et sociales en Roumanie. La seconde section introduit les données statistiques et la méthodologie utilisée dans notre recherche. La troisième section présente les résultats empiriques de l'évaluation des disparités économiques et sociales au niveau de NUTS3 de 2000 jusqu'au 2016. Les conclusions et les remarques sont présentées dans la dernière section.

2. ÉTAT DE L'ART

En Roumanie, les disparités régionales ont commencé à être analysées avec le début de la transition vers l'économie de marché, et aussi avec l'adhésion du pays à l'UE en 2007. Dans la plupart des études, le but principal est d'identifier les décalages régionaux, leur évolution dans le temps, ainsi que leurs facteurs explicatifs. Pour le cas de la Roumanie, les disparités économiques sont habituellement abordées séparément de celles relatives aux aspects sociaux. Il n'y a, selon nos connaissances, aucune étude scientifique qui analyse conjointement les deux dimensions dans un but

comparatif, en dehors d'un petit nombre de recherches qui analysent certains indices sociaux ensemble avec les indicateurs économiques (Rotariu, 2009; Ianoş *et al.*, 2013; Istrate et Horea-Şerban, 2016; Goschin, 2015). En ce sens, notre recherche étend les contributions scientifiques antérieures en faisant une comparaison entre l'évolution des disparités économiques et celles sociodémographiques au niveau départemental (NUTS3) de la Roumanie, pendant 2000–2016.

2.1. Disparités économiques

Les disparités économiques ont été étudiées notamment après la chute du communisme (1989), tant longitudinalement, d'habitude jusqu'à l'adhésion et peu de temps après (Benedek *et al.*, 2015; Diaconu, 2014; Zaman *et al.*, 2013; Ianoş *et al.*, 2013; Pintilescu, 2011) que transversalement (Berekméri, 2006; Lefter et Constantin, 2009). Les travaux ont eu comme but d'identifier le niveau et la dynamique des disparités et de mettre en place des études qui ont comme but d'analyser les mesures nécessaires pour diminuer les disparités territoriales du point de vue économique tant au niveau de régions NUTS2 qu'au niveau NUTS3 (Zaman *et al.*, 2013). Les recherches sur les disparités économiques ont été menées à toutes les échelles géographiques: macro-régionale (Oţil et Părean, 2010), régionale (Benedek, 2015; Diaconu, 2014; Pintilescu, 2011; Mîtrică *et al.*, 2020 a), départementale (Ianoş *et al.*, 2013) et même locale (Török et Benedek, 2018).

Lorsque l'on analyse les disparités et leurs relations avec les fonds de cohésion distribués¹ sur la période de programmation 2007-2013, on s'aperçoit que l'intensité des disparités varie en fonction de l'échelle spatiale retenue. La littérature scientifique s'accord sur le fait qu'elles sont plus accentuées au niveau intrarégional qu'au niveau interrégional (Zaman *et al.*, 2013; Bourdin et Torre, 2018). L'exemple de la région d'Ouest, la deuxième région la plus développée de la Roumanie, est éclairant. Cette région a un PIB par habitant de 51% de la moyenne européenne. À l'intérieur de cette région NUTS2, sur les quatre départements, deux sont développés (Arad et Timiş) et deux autres sont en retard (Caraş-Severin et Hunedoara). Sur les 56 projets financés au cours de la période de programmation 2007–2013 dans la Région d'Ouest, Benedek *et al.* (2015) remarquent que seuls quatre projets étaient situés à Caraş-Severin, le département le plus pauvre de la Région d'Ouest, et plus de 70% des fonds ont été alloués aux deux départements les plus développés de la région. Cette polarisation de l'absorption des fonds européens est notamment due au manque de capacité administrative de ces collectivités territoriales (Bourdin, 2019). En conséquence, les départements moins développés des régions NUTS2 développées ont été les plus affectés en ce qui concerne les perspectives européennes d'investissement.

Plusieurs chercheurs ont mis en évidence le rôle des infrastructures de transport comme facteur de développement économique. Ainsi, en commençant par l'amélioration et l'expansion des infrastructures (Benedek *et al.*, 2015; Diaconu, 2014), on peut accroître l'attrait de la région pour les investisseurs étrangers. Cet aspect pourrait augmenter le niveau d'industrialisation de la région, le niveau de formation des travailleurs, la productivité du travail et donc les revenus (Danciu *et al.*, 2010). Les investissements directs à l'étranger (IDE), en particulier pour les régions moins développées, sont très importants en termes de catalyseurs du développement économique. Mais, puisque l'allocation de Fonds européens repose sur le principe d'additionnalité (principe de co-financement des projets soutenus), de nombreuses régions ne sont pas nécessairement en mesure de co-financer de telles infrastructures. À ceci, s'ajoutent les difficultés évoquées par de nombreux chercheurs sur les problèmes rencontrés en termes de capacité administrative (Farole *et al.*, 2011; Rodríguez-Pose et Garcilazo, 2015; Bourdin, 2020). Par conséquent, il n'est pas étonnant que les régions du Nord-Est et de Sud-Ouest aient les moins attirés d'IDE pour l'année 2013, étant donné qu'elles n'aient aucun kilomètre d'autoroute et de leur faible capacité administrative. En revanche, les

¹ Rappelons que ces Fonds sont alloués au niveau NUTS2.

régions plus développées et la région capitale ont attiré, pour cette même année, un peu plus de la moitié des fonds d'IDE (Diaconu, 2014; Benedek *et al.*, 2015).

2.2. Disparités sociales

La réalité sociale de la Roumanie est liée à son évolution historique. Même à ses débuts comme État moderne, les inégalités interrégionales et la pauvreté ont été deux constantes et les efforts pour les combattre au cours des XIX^e et XX^e siècles n'ont pas réussi à les éliminer. En conséquence, la Roumanie et la Bulgarie occupent aujourd'hui les premières places dans l'UE en termes de pauvreté (Țâra, 2013). Cette situation est alarmante, surtout si l'on pense que les inégalités au sein des sociétés peuvent être source de déstabilisation de ses institutions politiques, et de la société en général.

En Roumanie, les analyses des disparités sociales sous l'angle territorial sont moins développées par rapport à celles concernant les aspects économiques. Au niveau du pays, les disparités sociales ont été analysées soit par des indicateurs sociaux individuels (Rotariu, 2009), soit par l'indice de développement social (Sandu, 2011), soit notamment par des indices agrégats comprenant des indicateurs de la sphère économique (Goschin, 2015; Lefter et Constantin, 2009). Parmi les indicateurs analysés dans les études antérieures, on retrouve le nombre de médecins par habitant, l'espérance de vie à la naissance, la surface habitable construite (Rotariu, 2009), la mortalité infantile, le niveau d'éducation (Sandu, 2011), le nombre d'habitants par chambre et le taux d'abandon scolaire (Ianoș *et al.*, 2013). La période d'étude des disparités sociales concernées est en général après la chute du communisme, et est réalisée soit pour une seule année (Rotariu, 2009), soit pour plusieurs années (Sandu, 2011, Goschin, 2015).

Par exemple, l'analyse de la situation des disparités sociales en termes de densité de médecins met en évidence des disparités majeures, qui sont difficilement acceptables en termes d'équité et de justice sociale (Rotariu, 2009). Dans les départements où se trouvent les centres universitaires, le nombre de médecins est élevé et ils assurent l'assistance médicale y compris pour les départements limitrophes. Par ailleurs, si on prend en compte l'indice du développement social local (IDSL), développé par Sandu (2011), on remarque que les plus pauvres départements en ce qui concerne l'aspect social ne sont pas en Moldavie, mais dans le sud du pays. Ce phénomène peut s'expliquer par l'émigration du capital humain (surtout des jeunes, des élites) vers la capitale, ce qui a appauvri les départements en question. Une situation similaire existe entre les départements jugés comme périphériques de Sălaj et Bistrița–Năsăud et le département central de Cluj qui est plus développé. Suivant l'indice élaboré par Goschin (2015), qui offre une mesure plus complexe des disparités économiques et sociales, on remarque que les décalages interdépartementaux pendant l'intervalle 1995–2012 semblent se creuser à long terme.

Dans ce contexte, on mène ce travail sur les disparités territoriales économiques et sociales en Roumanie, notamment au niveau NUTS3 (départemental) pour la période 2000–2016. Ce travail offrira une perspective plus claire sur les évolutions économiques et sociales après la révolution communiste, avant et après la crise économique et l'adhésion de la Roumanie à l'UE, par la création d'un indice économique et d'un indice sociodémographique et leur comparaison au fil du temps du point de vue de leur évolution.

3. APPROCHE METHODOLOGIQUE

Parmi les indicateurs de disparités les plus utilisées pour évaluer les disparités régionales en Roumanie, on retrouve: l'indice Herfindahl – Hirschman, l'indice de Gini, l'indice de Concentration et la courbe Lorenz – Gini (Zaman *et al.*, 2013; Benedek *et al.*, 2015). D'autres chercheurs ont fait appel à des analyses multicritères, telles que l'analyse en composantes principales (Bianchet, 1994; Lefter et

Constantin, 2009; Ianoș *et al.*, 2013), la classification hiérarchique ascendante (Istrate et Horea-Șerban, 2016), l'analyse factorielle des correspondances (Pintilescu, 2011), le test DAC (Drane-Aldrich-Creanga) (Ianoș *et al.*, 2013), la régression linéaire et l'autocorrélation spatiale (Benedek *et al.*, 2015). Ce qu'on peut constater par rapport à tous ces travaux est qu'il y a une domination des indicateurs économiques, y compris dans le cadre des approches multicritères.

Les approches basées exclusivement sur une seule dimension, voir un seul indicateur (le plus souvent le PIB/hab.) ne parviennent pas à fournir une image satisfaisante de la réalité. Nous rejoignons les conclusions de Benedek *et al.* (2015) qui prônent la création d'un système d'allocation des fonds de cohésion basé sur *un set d'indicateurs spécifiques* et non pas seulement à partir d'une évaluation unidimensionnelle (le produit intérieur brut par habitant) pour caractériser les différences entre les régions. Dans le même sens, Ianoș *et al.* (2013) considèrent que le PIB par habitant exprime partiellement les disparités économiques et que d'autres deux variables doivent être ajoutées pour évaluer les disparités. La nouveauté de notre étude consiste dans une approche multidimensionnelle des disparités régionales, qui vise à comparer l'évolution des disparités économiques avec l'évolution des disparités sociodémographiques.

En général, les disparités économiques sont mesurées par des indicateurs qui reflètent le niveau de performance économique régionale, tandis que les disparités sociales sont identifiées par le niveau d'éducation, de santé, de la culture, par la mobilité de la population. Parmi les indicateurs les plus utilisés dans la littérature pour mettre en évidence les disparités économiques on retrouve: le PIB par habitant – le plus fréquemment utilisé, le revenu total du ménage, la productivité du travail, les investissements étrangers directs, le taux de chômage, le nombre d'entreprises actives, le salaire net, le revenu (Lefter et Constantin, 2009; Pintilescu, 2011; Ianoș *et al.*, 2013; Poledníková, 2014; Istrate et Horea-Șerban, 2016; Popescu *et al.*, 2016; Simionescu, 2017; Mitrică *et al.*, 2020b). De l'autre côté, pour analyser les disparités sociodémographiques, les indicateurs le plus utilisés sont l'indice de développement humain, les pharmacies par 10000 habitants, le taux de mortalité infantile, l'espérance de vie à la naissance, le nombre de médecins rapportés au nombre d'habitants, le nombre des personnes avec des études supérieures, taux d'abandon scolaire (Rotariu, 2009; Sandu, 2011; Ianoș *et al.*, 2013; Parente, 2018).

Dans le cadre de notre étude, nous avons sélectionné 8 indicateurs (4 indicateurs économiques et 4 indicateurs sociodémographiques) afin de calculer deux indices synthétiques: un indice de développement économique (sur la base du PIB par habitant, du taux de chômage, du nombre d'entreprises actives pour 1000 habitants et du salaire net) et un indice de développement sociodémographique (sur la base du nombre de lecteurs actifs par bibliothèques pour 1000 habitants, du nombre des émigrants à l'étranger pour 1000 habitants, du taux de mortalité infantile et du nombre de dentistes pour 1000 habitants). Les 8 indicateurs ont été sélectionnés sur la base des recommandations qu'on retrouve dans la littérature discutée ci-dessus, mais aussi en tenant compte de la disponibilité, la pertinence, et la continuité temporelle des bases de données disponibles. Les deux indicateurs synthétiques (social et économique) ont été créés en utilisant la méthode de prise de décision multicritères TOPSIS. Puis, nous avons calculé la sigma convergence des départements roumains sur les plans économiques et sociodémographiques. Enfin, nous avons comparé les sigma convergences estimées en utilisant le coefficient de variation.

3.1. La méthode TOPSIS (Technique for Order Preference by Similarity to Ideal Solution)

La méthode TOPSIS est une méthode compensatoire développée par Hwang & Yoon (1981) qui a été appliquée dans d'autres recherches qui étudient les inégalités (par exemple, Poledníková, 2014). L'emploi de la méthode TOPSIS s'applique en trois étapes. D'abord, la méthode TOPSIS s'appuie sur la détermination de la meilleure alternative qui résulte du concept de la solution de compromis. Le

choix de la meilleure alternative la plus proche de la solution idéale (avec la distance euclidienne la plus courte) et la plus éloignée de la solution idéale négative est considéré la solution de compromis. TOPSIS est toujours utilisée pour la prise de décision multi-attributs, en classant les alternatives en fonction de la proximité entre l'alternative et l'alternative idéale (Poledniková, 2014). Cette méthode a une procédure qui inclut les étapes suivantes. La première étape consiste à construire une matrice de décision. La matrice de décision consiste en un ensemble d'alternatives:

– $A = \{A_i \mid i = 1, \dots, n\}$ et un ensemble de critères (attributs),
 – $C = \{C_j \mid j = 1, \dots, m\}$, où $Y = \{y_{ij} \mid i = 1, \dots, n; j = 1, \dots, m\}$ désigne l'ensemble des cotes de performance

– $w = \{w_j \mid j = 1, \dots, m\}$ est l'ensemble des poids pour les critères.

Dans notre cas le poids a été établi 1, par les auteurs, pour tous les critères. Une procédure qui convertit tous les critères afin qu'ils soient tous minimisés ou maximisés est souvent implémentée avant l'exécution de la méthode TOPSIS. Après, on calcule la Matrice de Décision Normalisée en utilisant la formule suivante:

$$X'_{ij} = \frac{X_{ij}}{\sqrt{\sum_{j=1}^m X_{ij}^2}} \quad (1) \text{ où } i = 1, \dots, n; j = 1, \dots, m.$$

La seconde étape est de calculer la Matrice de Décision Normalisée Pondérée, où on utilise le poids défini des critères et qui s'exprime par $V_{ij} = \overline{X'_{ij}} \times W_{ij}$, où $i = 1, \dots, n; j = 1, \dots, m$. La troisième étape consiste en calculer la meilleure valeur idéale (V^+ - Idéale Solution) et la mauvaise valeur idéale (V^- - Anti-Idéale Solution) dérivées de $V^+ = \max (V_{ij})$ et $V^- = \min (V_{ij})$. Ensuite, on calcule la distance euclidienne à partir de la meilleure valeur idéale (Idéale Solution) (2) et la distance euclidienne à partir de la mauvaise valeur idéale (Anti-Idéale Solution) (3) pour séparer les solutions idéales (S_i^+) et les solutions anti-idéales (S_i^-).

$$S_i^+ = \left[\sum_{j=1}^m (V_{ij} - V_j^+)^2 \right]^{0.5} \quad (2)$$

$$S_i^- = \left[\sum_{j=1}^m (V_{ij} - V_j^-)^2 \right]^{0.5} \quad (3)$$

La dernière étape prend fin par le calcul du Score de Performance (4), c'est-à-dire, la proximité relative à la solution idéale et de classer les alternatives par ordre décroissant.

$$P_i = \frac{S_i^-}{S_i^+ + S_i^-} \quad (4)$$

3.2. Le coefficient de variation (C.V.)

Le coefficient de variation est un indice de dispersion relatif. Il est exprimé en pourcentage et il est indépendant du choix des unités de mesure. C'est le rapport de l'écart-type à la moyenne et permet la comparaison de distributions de valeurs dont les échelles de mesure ne sont pas comparables.

$$CV = \frac{I_f}{x} \times 100$$

Plus la valeur du coefficient de variation est élevée, plus la dispersion autour de la moyenne est grande. Plus la valeur du coefficient de variation est faible, plus l'estimation est précise (Groza *et al.*, 2003). En bref, l'indicateur C.V. indique si la convergence est atteinte ou non. Si la valeur diminue avec le temps, la convergence sigma est atteinte (Goschin, 2015).

3.3. L'indice de GINI

L'indice de Gini est un indice évaluant les inégalités, qui permet une comparaison directe de la répartition des revenus de deux populations, quelle que soit leur taille. Il est calculé comme le rapport entre l'aire entre les deux courbes (la courbe de Lorenz et la bissectrice) et l'aire sous la bissectrice. Il est égal à $A / (A + B)$. Suivant les travaux de Bourdin (2013a), nous utilisons l'indice de Gini pour calculer la sigma convergence en comparant l'évolution de l'indice à différentes dates.

Les limites de cet indice sont les suivantes: il ne donne aucune indication sur le niveau de revenu. Ainsi, il est possible que deux pays aient le même coefficient de Gini, alors que leur niveau de richesse est différent et que le même coefficient de Gini peut correspondre à des distributions de revenus différentes. De plus, un coefficient de Gini ne dit rien sur les causes du changement des inégalités et est plus sensible aux revenus de la classe moyenne qu'aux revenus extrêmes.

4. RESULTATS ET DISCUSSIONS

4.1. Une croissance des disparités économiques en profil territorial

Le coefficient de variation des indicateurs économiques montre, en général, pour l'ensemble de la période analysée, l'existence d'un processus clair de divergence économique (Figures 1 et 2, gauche). Tous les indicateurs économiques (PIB par habitant, taux de chômage, entreprises actives pour 1000 habitants et le salaire net) indiquent une croissance du coefficient de variation avec presque 10%, entre 2000 et 2016. En plus, l'évolution du coefficient de variation des indicateurs économiques est confirmée par l'évolution de l'indice de Gini, calculé au niveau départemental pour les mêmes indicateurs (Figures 1 et 2, à droite). Ces résultats mis en évidence dans les Figures 1 et 2 confirment des tendances que l'on connaissait déjà dans la littérature (Zaman *et al.*, 2013; Benedek *et al.*, 2015). De nombreux facteurs peuvent être avancés pour expliquer ces tendances. Les études antérieures mettent l'accent sur les effets territoriaux contrastants de la transition d'une économie trop centralisée à une économie de marché (Kurkó, 2006), sur le contexte marqué par la globalisation et l'intégration dans l'UE (Zaman *et al.*, 2013, Benedek *et al.*, 2015; Goschin, 2017), sur l'héritage historique en termes de dotation en infrastructures ou de qualité de la main-d'œuvre (Istrate et Horea-Șerban, 2016), ou sur la répartition territoriale inégale des investissements publics (Benedek *et al.*, 2015). D'autres chercheurs se réfèrent au modèle de Kuznets-Williamson (Kuznets, 1955; Williamson, 1965), et considèrent que la croissance des disparités territoriales est un phénomène naturel pour une économie émergente telle que la Roumaine (Istrate et Horea-Șerban, 2016), qui est passée d'un PIB/hab. de 4900\$ en 2000 à 12100 \$/hab en 2019 (Banque Mondiale, 2020).

Néanmoins, certaines nuances émergent si l'on compare les tendances enregistrées par les disparités mesurées selon les quatre indicateurs économiques. Bien que la tendance générale soit claire, on peut observer l'existence d'inflexions particulières dans l'évolution des disparités mesurées avec l'aide de certains indicateurs. Contrairement au cas des disparités mesurées en fonction du PIB/hab. et du nombre d'entreprises actives pour 1000 habitants – qui ont connu une augmentation constante entre 2000 et 2016 – les disparités régionales mesurées en fonction du taux du chômage ont enregistré une forte baisse notamment en 2009 et 2010. Cela s'explique par l'arrivée de la crise économique, qui a fait exploser le chômage au niveau national, en passant de 4,4% en 2008 à 7,8% en

2009 (INSSE, 2020). Le salaire net connaît une croissance modérée du coefficient de variation, avec des points d'inflexion différents, le plus important étant celui de 2004. C'est le moment où la Roumanie a rejoint l'OTAN, les IDE sont alors montés en volume à des niveaux très élevés par rapport au passé, et lorsque le système fiscal progressif a été abandonné.

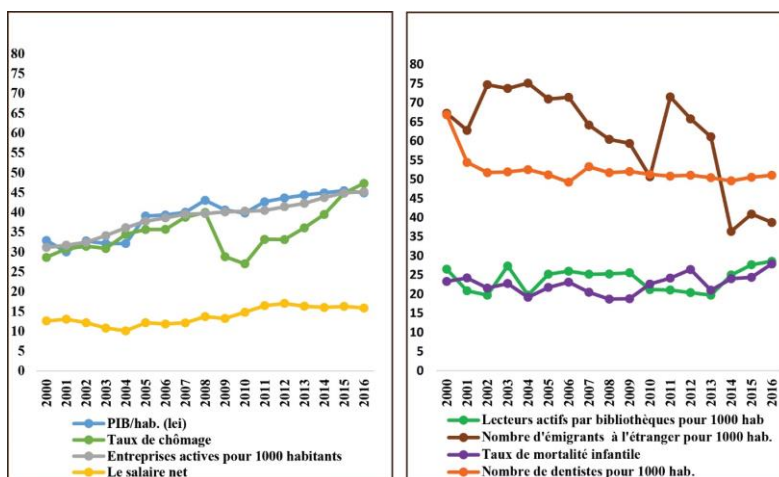


Fig. 1 – Évolution du coefficient de variation pour les quatre variables économiques (à gauche) et les quatre variables sociodémographiques (à droite). (Source des données: INSSE, 2019).

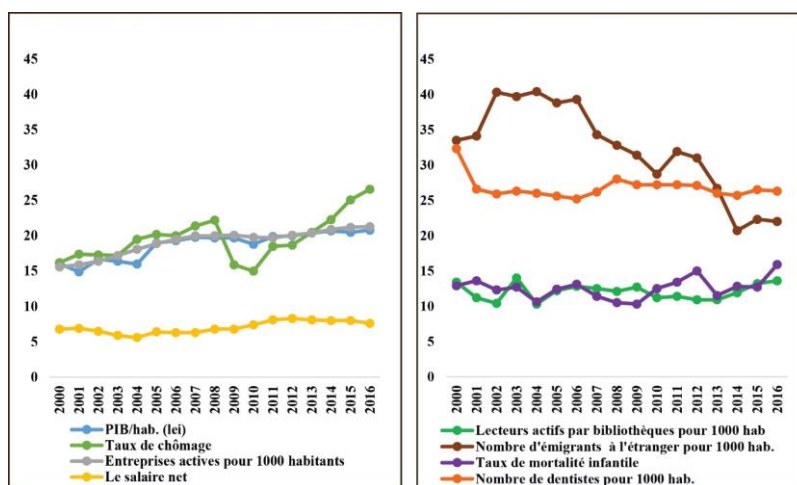


Fig. 2 – L'évolution du coefficient de Gini pour les quatre variables économiques (à gauche) et les quatre variables sociodémographiques (à droite). (Source des données: INSSE, 2019).

4.2. Une évolution peu concluante des disparités régionales sociales

Les disparités régionales sociales au niveau des départements (NUTS3) ont été peu étudiées au niveau de la Roumanie, c'est pourquoi la présente recherche leur a donné plus d'espace que dans les études géographiques précédentes.

Le coefficient de variation, aussi bien que l'indice de Gini, pour les indicateurs sociaux (lecteurs actifs par bibliothèques pour 1000 habitants, nombre d'émigrants à l'étranger pour 1000 habitants, taux de mortalité infantile et nombre de dentistes pour 1000 habitants) indiquent deux situations différentes: les indicateurs des lecteurs actifs par bibliothèques pour 1000 habitants et le nombre

d'émigrants à l'étranger pour 1000 habitants connaissent une convergence, alors que les indicateurs du taux de mortalité infantile et du nombre de dentistes pour 1000 habitants enregistrent une faible croissance des disparités (Figures 1 et 2, à droite). Ces différentes évolutions des coefficients de variation des quatre indicateurs sociaux suggèrent que l'évolution des disparités sociales ne nous permet pas d'identifier une tendance claire. Cependant, les résultats pourraient être différents si des variables telles que la part de la population qualifiée ou la population diplômée de l'enseignement supérieur pouvaient être introduites dans l'analyse, variables pour lesquelles il n'existe actuellement pas de données annuelles au niveau des départements.

4.3. Régions gagnantes et régions perdantes

L'analyse géographique des disparités économiques et sociales serait incomplète sans l'identification des régions gagnantes et perdantes au cours des deux dernières décennies. Des études antérieures ont mis en évidence l'existence d'un processus de divergence économique, également confirmé par des indicateurs de beta-convergence. Ainsi, les régions les plus riches au début de la période d'analyse ont généralement augmenté plus rapidement que celles qui étaient plus pauvres au début de la période.

Notre analyse confirme à son tour l'existence d'une divergence territoriale. En général, les départements de la zone extra-carpatique sont descendus dans la hiérarchie nationale (Figures 3 et 4), à la fois en termes de développement social (Brăila, Giurgiu, Constanța, Galați, Hunedoara) et en termes de développement économique (Bacău, Galați, Mehedinți, Olt, Dolj). Par contre, les départements qui ont augmenté de manière significative dans la hiérarchie nationale appartiennent presque exclusivement à la zone située à l'ouest des Carpates, à la fois en termes de développement social (Bihor, Mureș, Sălaj, Sibiu), et en termes de développement économique (Alba, Bistrița-Năsăud, Sălaj, Caraș-Severin).

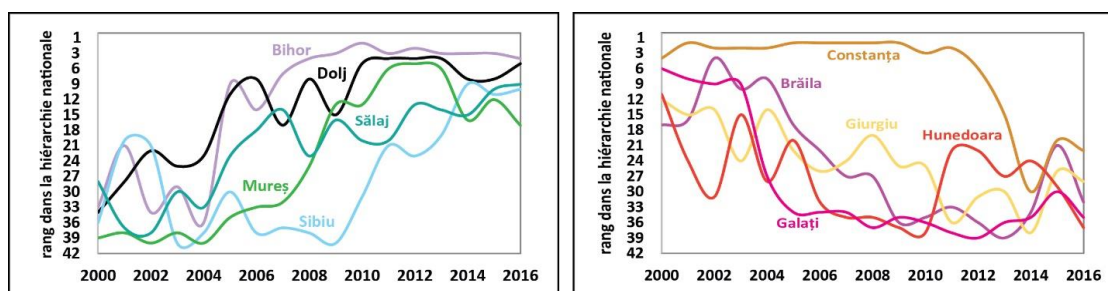


Fig. – 3 Les départements qui ont avancée de manière significative dans la hiérarchie nationale en termes de développement social (à gauche) et les départements qui ont descendues de manière significative dans la hiérarchie nationale en termes de développement social (à droite). (Source: auteurs, sur la base des résultats de l'analyse TOPSIS).

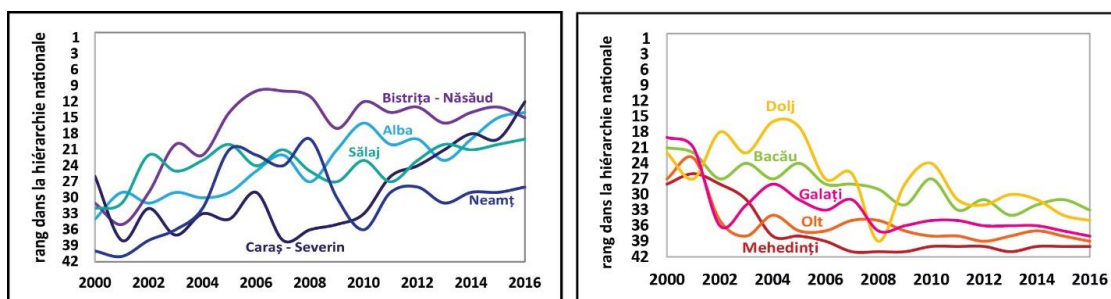


Fig. – 4 Les départements qui ont avancée de manière significative dans la hiérarchie nationale en termes de développement économique (à gauche) et les départements qui ont descendues de manière significative dans la hiérarchie nationale en termes de développement économique (à droite). (Source : auteurs, sur la base des résultats de l'analyse TOPSIS).

4.4. D'une relation indépendante entre développement économique et développement social à une dépendance croissante

La Figure 5 met en évidence la relation statistique changeante entre performance économique et performance sociale. Elle montre une association statistique qui devient de plus en plus évidente, en passant d'un coefficient de détermination de 3% en 2000 à 16% en 2016.

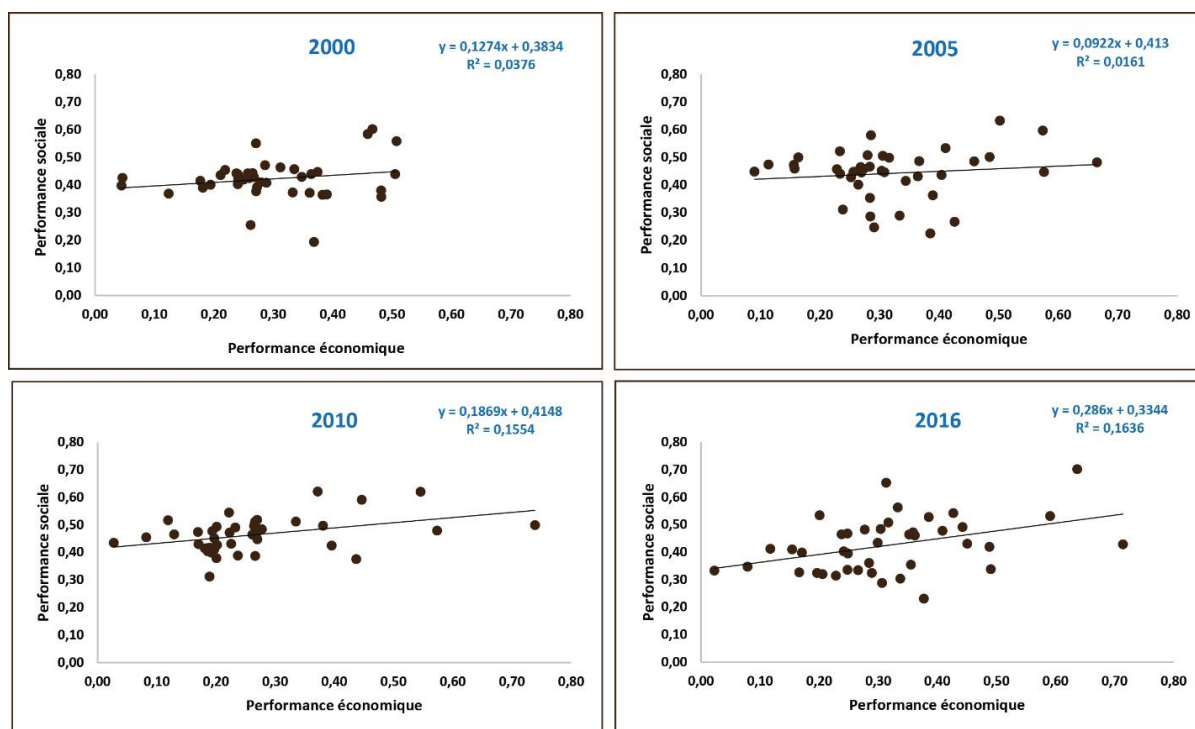


Fig. 5 – Performance économique versus performance sociale: Coefficient de corrélation de Bravais-Pearson, analyse transversale pour les années 2000, 2005, 2010 et 2016. (Source: auteurs²).

On remarque qu'au début de la période d'étude et jusqu'à sa moitié cette corrélation n'est pas significative. La corrélation de Bravais-Pearson devient significative surtout après l'année 2009 et jusqu'à la fin de la période d'étude avec une exception entre les années 2011 – 2013 (Fig. 5). Donc, pour les années 2010, 2015 et 2016, on peut affirmer avec moins de 5% de chances d'erreur que la relation observée entre développement économique et développement social n'est pas due au hasard. Cependant, on peut se demander si ces résultats seront confirmés par une analyse statistique non paramétrique, plus appropriée à la distribution statistique de nos données. À cette fin, la relation entre les deux variables a également été explorée à l'aide du coefficient de corrélation (ρ) de Spearman.

Les coefficients ρ de Spearman confirment – et ils renforcent même – les résultats suggérés par les coefficients Bravais-Pearson (Fig. 5), surtout pour les années 2010, 2013–2016 ($p < 0.01$). Donc, la Figure 6 confirme l'existence d'une association statistiquement significative entre performance économique et développement social au niveau départemental, une relation qui tout au long de la période d'étude devient de plus en plus significative. Le renforcement, en profil territorial, de la dépendance entre performance économique et développement sociale devrait préoccuper les autorités publiques qui cherchent à promouvoir la cohésion territoriale.

² La capitale Bucarest a été exclue de l'analyse afin d'éliminer les valeurs extrêmes.

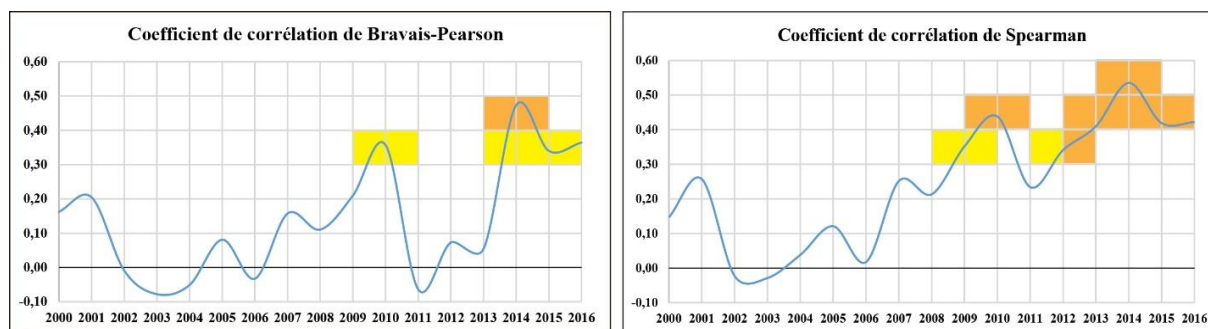


Fig. 6 – Coefficients de corrélation de Bravais-Pearson et de Spearman, source: auteurs.
 Les valeurs – limite du r pour différents niveaux de signification du coefficient de corrélation linéaire Bravais-Pearson et Spearman. Jaune – $p < 0,05$, Orange – $p < 0,01$.

5. CONCLUSIONS

Le but de cette recherche a été de faire une analyse multicritère de l'évolution des disparités régionales pour le cas particulier de la Roumanie pendant la période 2000–2016. À cette fin, nous avons mené une comparaison, dans le temps, des disparités économiques et des disparités sociodémographiques. Les résultats mettent en évidence, en général, une divergence économique, confirmée à la fois par le coefficient de variation et l'indice de Gini de plusieurs variables économiques. Par contre, les disparités sociales régionales ne sont pas caractérisées par une tendance claire.

L'analyse géographique des disparités économiques et sociales révèle des régions gagnantes et des régions perdantes, au cours de la période étudiée. En général, les départements extra-carpatiques sont descendus dans la hiérarchie nationale, à la fois en termes de développement social et de développement économique, tandis que les départements situés à l'ouest des Carpates se sont considérablement élevés dans la hiérarchie nationale, tant en termes de développement social que de développement économique.

Cette recherche apporte aussi des résultats nouveaux concernant la dépendance entre performance économique et développement social. Elle fournit des résultats empiriques préliminaires qui suggèrent une dépendance croissante entre développement social et économique sur la période étudiée, comme en témoignent les coefficients de corrélation et leur significativité.

L'accroissement des inégalités régionales, ainsi que la dépendance croissante entre le développement régional économique et social, suggèrent la nécessité de porter une attention accrue à la manière dont les investissements publics sont répartis géographiquement. Les résultats de notre recherche impliquent que les futures politiques publiques territoriales devraient en priorité chercher à contrebalancer ce creusement des inégalités en Roumanie. Si ces inégalités ne sont pas adressées, le risque est grand qu'elles deviennent quasiment irréversibles pour certains départements qui cumuleraient des problèmes de développement sur le long terme. De ce point de vue, la mise en place du REACT-EU (Recovery Assistance for Cohesion and the Territories of Europe) dans le cadre de la "NextGenerationEU" peut constituer une opportunité pour la Roumanie – tout comme les autres pays de l'UE traversés par de fortes inégalités – de chercher à réduire les disparités territoriales. En apportant un complément de 47,5 milliards d'euros (50,5 milliards d'euros en prix courants) aux programmes de la Politique de cohésion au cours des années 2021 et 2022, le Fonds REACT-EU soutient des mesures axées sur le soutien à la résilience du marché du travail, à l'emploi, aux PME et aux familles à faibles revenus, ainsi que sur la mise en place de bases solides pour les transitions verte et numérique et une reprise socio-économique durable.

Toutefois, les résultats rapportés dans le cadre de cette recherche doivent être considérés avec prudence, car ils peuvent différer selon les indicateurs choisis, surtout pour le cas particulier des variables employées pour évaluer les disparités sociales en profil territorial. Si les données vont le permettre, de futures recherches pourraient employer des variables sociodémographiques alternatives, telles que le nombre de médecins, les personnes ayant des études supérieures, taux d'abandon scolaire etc. Les recherches suivantes pourraient aussi établir si les dépendances croissantes entre le développement social et économique pendant la période 2000-2020 sont une particularité roumaine ou une caractéristique générale des pays d'Europe centrale et orientale.

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FOREIGN DIRECT INVESTMENTS AND EMPLOYMENT GENERATION IN THE NIGERIA MARITIME INDUSTRY

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Key-words: Foreign Direct Investments, maritime industry, employment generation, port infrastructure.

Abstract. The fundamental role of foreign direct investments (FDIs) in the economic development (especially job creation) of many nations has well been acknowledged in literature, the basics of which depends on favourable conditions for its (FDIs) attraction. The paper assessed the relationship between FDIs and employment generation in the Nigeria maritime sector. Primary data on the impact of foreign direct investments (FDIs) in port infrastructural development in Nigeria was collected using questionnaires administered in Apapa, Onne and Calabar Ports through stratified sampling technique. At 77.7 percent success rate on about 600 administered questionnaires was used for the analysis. Initial factor analysis was employed in articulating the opinion of respondents drawn from the study area. The study confirmed that there is a significant relationship between volume of FDIs attracted to Nigeria maritime sector and the number of jobs created, $t(313) = 8.263$, $p < 0.01$, using linear regression analysis. The study recommended improved policy and regulatory environment, investors' tax friendly and legal systems, removal of capital controls as essential to the FDIs' attraction and contribution to growth in the economy of Nigeria, among others. It is therefore recommended that adequate investment in critical maritime infrastructure such as communication, power, transportation and energy should be undertaken to enhance the inflow of our foreign direct investments and stimulate a boost for the economic growth of the host country. The Cabotage Law and other enabling legislations should be enforced to attract FDIs as well as protect the local population against job-imports into the destination country.

1. INTRODUCTION

Globalisation has produced both challenges and opportunities for different countries of the world. Shifts in economic policies leading to more integrated global communities have had profound changes in the level and structure of jobs as demand for goods and services moves beyond national boundaries at a terrific rate compared with pre-globalisation years. Changes in international trade rules have had an enormous influence not only on the creation and distribution of jobs in developing economies but also on transportation and communication as well as speed at which business transactions are carried out. A noticeable trend in many globalising developed countries in both manufacturing and services is the shift of activities to an increasingly competent set of suppliers, contract manufacturers, and intermediaries. Thus, this gives the opportunity of the producer/supplier gaining economies of scale by pooling resources across a broad customer base. In addition, the existence of highly competent independent suppliers lowers the barriers to globalisation for firms, especially for small and medium scale firms that have not yet shifted any activities offshore, thus affecting their competitive advantage.

Foreign investments in Nigeria are investments that are either partly or wholly owned by foreign enterprises. According to the Central Intelligence Agency, 'the stock of FDI in Nigeria was estimated to be \$67.23 billion as of December 2010 and \$61.23 billion as of December 2009' (Idowu, Awe, 2014). The Nigerian government established a series of incentives to attract foreign capital as foreign

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investment played a major role in the economy before the early 1970s until 1972 when a large part of the non-agricultural sector was controlled by foreign-owned companies. Between 1963 and 1972, an average of 62% of the total capital was in foreign hands (Biersteker, 1987). After the civil war, the government emerged with a nationalistic vigour which was embodied in the second development plan. The government pursued a policy of progressive elimination of foreign dominance in terms of ownership, management and technical control through an indigenization scheme and preferential credit to nurture indigenous entrepreneurs. The Nigerian enterprise Promotion Decree of 1972 was enacted limiting foreign equity participation in the manufacturing and commerce sector to a maximum of 60%. In 1977, a second indigenization decree was promulgated that further limited foreign equity participation in Nigerian businesses to 40%. Between 1973–1975, a new strategy was encouraged and facilitated because of the oil boom, and total government revenue increased by 500% in just a year. The structural adjustment programme was undertaken in 1986 to restructure the economy and lay the path for self-sustaining growth. This was required by a balance of payment crisis as a result of glut in the world oil market in the early 1980s. In 1991, the Export Processing Zone (EPZ) scheme was adopted to allow persons to establish industries and businesses within demarcated zones, principally with the objectives of exporting the goods and services manufactured and produced within the zone. Necessary infrastructure has been put in place in Calabar, as the designated primary EPZ territory, as well as one in Kano (Ogunkola, Jerome, 2006).

In 1995, the economy was liberalized after placing a considerable restriction on FDI in most policy domain-affecting business activities. The Nigerian Investment Promotion Commission Act of 1995 which laid out the framework for the Nigerian investment policy was established. Under this act 100% foreign ownership is allowed in all industries except for oil and gas where investment is constrained to existing joint ventures or new production sharing agreements. In March 2006 the Nigerian Investment Promotion Commission (NIPC) set up a One-Stop-Investment-Centre (OSIC) on its premises in Abuja to facilitate and promote investment in Nigeria. The OSIC brings together agencies with mandates relating to investment in order to streamline the process of investing in the country. The stakeholders represented with OSIC are: NIPC, the Corporate Affairs Commission (CAC), the Central Bank of Nigeria (CBN), the National Bureau of Statistics (NBS), the Nigeria Immigration Service (NIS), the Federal Ministry of Finance, the Nigeria Customs Service along many others. The OSIC has registered more than 2500 companies since its inception (2006). With all these the Nigerian government is committed to bringing in more investment. In August 2009, UNCTAD and the Japan Bank for International Cooperation (JBIC) presented the Nigerian Government with a 15-point action plan to develop the country investment promotion structure and create an investment environment so as to enable Nigeria to meet its target of becoming one of the world's top 20 economies by 2020. Among the recommendation, the so called 'bluebook' calls for the installation of a computerized investment tracking system by OSIC reforms in the tax system and the establishment of a presidential initiative to encourage best practices in the transfer of land rights. The book is the sixth produced by UNCTAD and JBIC for Africa with others going to Tanzania, Kenya, Uganda, Ghana, and Zambia (Business, Trade and Investment Guide, 2011). Recently, the Federal Government announced its aggressive plan to also reform the oil sector (Umueni, 2011). The plan proposes the unbundling of the NNPC and the passing of the Petroleum Industry Bill (PIB). This bill has been under discussion for over a decade and has faced strong lobbying from international oil companies in Nigeria.

However, despite all these policies and reforms, Nigeria remains a high-risk operating environment. Institution barriers to doing business, including corruption in government, are critical determinants of private sector development and for the prospect of sustainable growth. Nigeria being perceived as a corrupt country globally has not helped matters either. Corruption in public and private places distorts and hampers development and the cost of doing business in the country and its international reach.

The continuous bombing by the Boko Haram sect, farmers-herders' conflicts, kidnapping, banditry and other peace disruptions believed to have a political undertone remain major constraints to FDIs in Nigeria. These constitute serious impediments to the country's capacity to diversify foreign investment inflows away from oil. Other factors including poor infrastructure, inconsistency in policy and the issue of regulation, crime and other security concerns, economic mismanagement and so on, constitute major constraints to employment generation. The paper therefore examined the consequences of the above threats on employment generation due to the low volume of foreign direct investments (FDIs) in Nigeria.

2. STUDY AREA

The study area comprises of three port locations, namely Apapa port (Lagos State), Onne port (Rivers State) and Calabar port (Cross River State). This sample of three ports is therefore referred to as ports in Nigeria (Fig. 1). Nigeria is one of the largest countries in Africa, stretching across an area of 923,768 km². It lies within the tropics on the western coast of Africa, bordering Benin, Niger and Cameroon. The country's 800 km coastline is littered with natural harbours and sandy beaches. More than 200 mil. people live in Nigeria, making it the most populous nation in Africa. The Nigerian Ports Authority (NPA) is in control of eight ultra-modern ports, excluding oil terminals, with a cargo handling capacity of 35 mil. tons per annum. The eight ports are split into two zones: Western and Eastern. The 'western zone' consists of the: Lagos Port Complex; Container Terminal Port; Tin Can Island Port; and RoRo Port. The 'eastern zone' comprises of Port Harcourt Port Complex; Delta Port Complex; Onne Port Complex; and Calabar Port Complex. Discussion of location, specific facilities and capacity of sampled ports can be found in the following section.

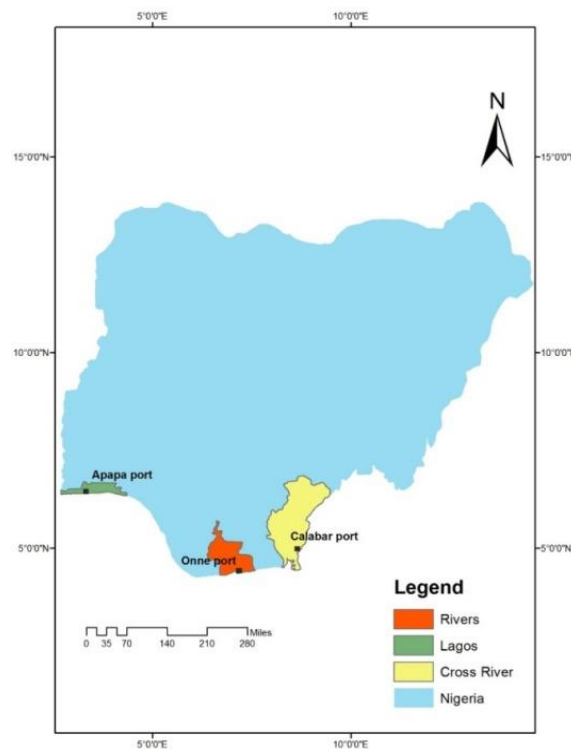


Fig. 1 – Nigeria showing all three port locations in Lagos, Rivers and Cross River States.

The Lagos Port Complex, also referred to as Premiere Port (Apapa Quays) is the earliest and largest Port in Nigeria. It is situated in Apapa, Lagos State, the commercial centre of Nigeria. The Port was established in 1913 and construction of the first four deep water berths commenced in 1921. The Apapa Port is well equipped with modern cargo handling equipment and personnel support facilities making her cost effective and customer friendly. It enjoys intermodal connection-Rail, Water and Road. It boasts a four-wheel gate of about 8 meters for oversize cargoes, which has given the Port an edge over others in the handling of oversized cargoes. For improved operational activities and efficiency, the landlord Port model was introduced by the Federal Government, later culminating in the concession of the terminals to private operators in 2006. Presently, the Lagos Port Complex has five (5) private Terminals with expert management and personnel that have both local and international experience in port operation. The Terminal Operators are: AP Moller Terminal Ltd. (APMT), ENL Consortium Ltd. (ENL), Apapa Bulk Terminal Ltd. (ABTL), Greenview Development Nigeria Ltd. (GNDL) and Lilypond Inland Container Terminal.

Onne Port Complex situated on the Bonny River Estuary along Ogu Creek is the first port of its kind in Nigeria that operated the Landlord Port Model devised to encourage private sector participation in the port industry. Strategically located in Port Harcourt, the Port is the largest Oil and Gas Free Zone in the world supporting exploration and production for Nigerian activities. The Free Zone provides a logistics Oil Service centre for the Oil and Gas Industry in Nigeria both Onshore and Offshore. It also provides easy access to the entire West African and Sub-Sahara Oil fields. Onne Port has been conceded to three (3) Private Terminal Operators namely: Messrs Intel Nig. Ltd., Brawal Shipping Limited and West African Container Terminal. The Port accounts for over 65% of the export cargo through the Nigerian Sea Port. There are multiple operations that are carried out in the Port in addition to the Oil and Gas operations. Some of such multiple operations are General Cargoes, Bulk Cargoes (Dry & Wet), Oil Well Equipment, Containerized Cargoes and other logistics services provided to companies that are customers and tenants. Hence, the Port is a multi-purpose Cargo Port. The Port is highly industrialized with modern facilities and equipment that can stand the test of time. There is also adequate land available for development to all customers and prospective investors who desire to partner with the Port in the Maritime Business. The Port covers an area of 2,538.115 hectares in which about nine jetties are located.

Historically, Calabar port located in Calabar served as an important focus of trade with the outside world for the Eastern States and a natural harbour for the Northern States of Nigeria right from the pre-colonial and colonial times. The Old Port was privately administered and operated by various shipping companies until December 1969 when the Federal Government took over the inadequate Calabar Port facilities from the erstwhile operators and vested it on the Nigerian Port Authority. The development, modernization and expansion of the Calabar port was embarked upon under the 3rd National Development Plan of 1975–1980 in order to upgrade the port facility to cope with the ever-increasing demand of our economy. The new port complex was commissioned on June 9, 1979 and lies 45 nautical miles (about 84 km) upstream from Fairway Buoy. Calabar Port Complex comprises the following: the Old Port, the New Port and the Dockyard; it has jurisdiction over Crude Oil Terminals at Antan, Odudu, Yoho, Qua Iboe; and other jetties at NIWA, McIver, NNPC, ALSCON, Dozzy, Northwest. The three Terminals of Calabar Port are operated by world class Terminal Operators; namely: ECM Terminal Ltd, INTELS Nigeria Ltd and Shoreline Logistics Nigeria Limited. The Calabar port occupies an area of approximately 38 ha of land and channels. The port also has 11 berthing facilities, as well as six transit sheds and many warehouses, which are permanently allocated to oil companies for storing their rig and drilling facilities. The new Calabar Port Complex has facilities to accommodate roll-on roll-off vessels.

3. LITERATURE REVIEW

Much of the views on the relationship between trade (an important proxy variable for globalisation) and employment conditions were, generally, the result of the emerging consensus among trade economists that globalisation was not a significant factor in explaining trends in labour markets in the late 1990s. For instance, Feenstra and Hanson (2003) maintained that out-sourcing, which is a characteristic feature of globalisation, accounts for half of the decline in unskilled to skilled relative wages for workers in the United States between 1979 and 1990. Aitken, Harrison and Lipsey (1996), using the Ordinary Least Square estimation, established that foreign-owned firms pay a wage premium of 38% in Mexico, 18% more in Venezuela and a 12% premium in the United States. Velde and Morrissey (2003) found wage premia of between 8% and 23% for Cameroon, Ghana, Kenya, Zambia and Zimbabwe. The above studies made use of manufacturing survey data and checked for worker – and plant – characteristics that might account for differences in productivity and wages. Furthermore, the study discovered that trade may have any or all of the following consequences: weakening union control of a labour market, weakening control of a monopolistic employer on a labour market, undermining legislated or enforced labour protections or strengthening the hand of labour in the domestic political arena. Rama (2003) assessed the impact of trade openness on wages by using annual wage data. He used different measures of openness such as the ratio of trade to GDP; effectiveness of openness policy as indicated by revenues from tariffs, limited non-tariff barriers (NTBs), absence of marketing boards, low level of central planning, low black-market foreign exchange premium, and ratio of FDI to GDP. His result indicated a negative and statistically significant effect of trade and trade policies on wages and employment.

Spiezia (2004) formulated and estimated a model in which employment was a function of exports, import and non-tradable to examine the effect of trade on employment. He found no significant relationship between FDI (the proxy variable for globalisation) and employment. In a similar study, Sen (2004) analysed the effects of globalisation on manufacturing employment in Bangladesh and Kenya using three approaches: the factor content approach, the growth accounting approach and the regression-based approach. The regression-based approach was very similar to those of Orbeta (2002), Tavera (2007), Patterson and Okafor (2006) and Olayinka (2006), where varying results were found. For example, Patterson and Okafor (2006) established that higher propensity towards openness (a measure of globalisation) negatively affects aggregate labour demand in Nigeria, while Olayinka's (2006) study found a positive relationship between openness of the economy and employment level in Nigeria. On the other hand, Tavera (2007) tested the role that FDI (his proxy for globalisation) plays in the creation of employment using panel data of ten subsectors of the manufacturing sector for the years 1980-2003; divided into three sub-periods of 1980-1989; 1990-2000 and 2001-2003. The result of the study showed that FDI had a positive, though very small effect on the creation of employment. Aryeetey (2006) observed that the slow growth of formal employment was one of the features that have characterised Ghana's reform effort of the last two decades. The author noted that employment increased from 208,000 in 1981 to 464,000 in 1985 and thereafter steadily declined to up to 186,300 in 1991. However, his empirical analysis showed a positive relationship between globalisation proxied by the degree of openness of the economy and employment.

China's economic growth averaged 8% annually since 1978 and has become the single largest export market for Japan and the East Asian newly industrializing economies. China's demand for intermediate components from its East and Southeast Asian regional trading partners, which supplied China with more than half of its total imports in 2003, has grown tremendously thereby leading to a significant rise of China's exports of final goods to non-Asian industrial economies. According to Yeung, Liu and Dicken (2004), the impact of trade on labour was found to be positive, albeit small. They also established that trade had little impact on wages and the distribution of income, but that foreign-owned and export-oriented firms paid higher wages. Kletzer (2004) reviewed some studies

that provide a rich description of trade-displaced workers in the United States for the period 1979 to 1999. The author observed that manufacturing industries were high import-competing and were characterised by an increased import share exceeding 13 percentage points. The author concluded that the dramatic increase of U.S. imports has led to trade-related job losses. In an earlier study, Kletzer (2001) obtained samples of trade-displaced workers who lost jobs in U.S. industries facing increased import competition. In contradiction to the U.S. case, Singapore doubled the share of manufactures in its total exports from 43% to 86% between 1980 and 1998. During the same period, Thailand tripled the share of manufactures in its total exports from 25% to 74%, Malaysia quadrupled its manufactured export ratio from 19% to 79%, and Indonesia had the most dramatic gains with manufactures soaring from 2% of exports in 1980 to 45% in 1998.

In 1998 Mexico was the only non-Asian economy with a transformation of a similar magnitude to what was reported above. Its manufactured exports grew from just 10% of total exports in 1980 to an astonishing 85% at the close of the 1990s (Dicken, 2003). Chakraborty and Nunnenkamp (2008) used co-integration and the Granger causality approach to examine the relationship between FDI and economic growth in India. They found that for the Indian economy, FDI and output are co-integrated in the long-run, but output growth has a higher Granger-causality impact on FDI. However, for different sectors of the economy different impacts were obtained. Between 1990 and 2000, the share of developing economies in world-manufactured exports increased from 16.6% to 26.8%, while that of industrialised economies decreased from 80.3% to 69.2%; and for economies in transition, manufactured exports grew from 3.1% to 4%, within the same period (UNIDO, 2005). In terms of composition, about 42% of East Asia's manufactured exports were in the high-tech category in 2000, and almost one third of Mexico's exports were in the same group. These growths in exports were accompanied by significant growth in employment.

In general, for Asian countries, employment and globalisation are positively, related but for most African nations like Nigeria, the result is not as clear cut. For instance, Rodrik (1999) acknowledged that trade openness may lead domestic producers to seek relief from costly labour standards by employing less labour. Also, workers in a globalizing poor economy face more wage, price and employment fluctuations. Thus, governments in such nations should play a risk-reducing role for labour either through expenditures-reduction strategies or act as employers of last resort when the level of unemployment rises as a result of economic adjustment to productive resources re-adjustment consequent on globalisation and competitive pressures.

Porter (1990) demonstrated how firms rather than nations remain principal actors in international trade while acknowledging the primary role of nations as 'home base' whose proximate environment shapes the firm's competitive success over time. His discussion of the relationship between national competitive advantage and domestic demand conditions deepens earlier discussion of the scale of advantages linked to a large home market (Grubel, 1967; Krugman, 1980), the significance of domestic demand in driving trade and production location in the product life cycle (Vernon, 1966). While earlier theories focused on particular aspects of the domestic market such as size and the presence of an early market for new products, Porter's (1990, 1995) identified a wide range of demand variables such as the 'rate of growth of domestic demand', composition of its segments, home customers sophistication and home market early saturation, as influences of international competitive performance.

Private international capital flows, particularly foreign direct investment, are vital complements for national and international development efforts. Foreign direct investment contributes toward financing sustained economic growth over the long term. It is especially important for its potential to transfer knowledge and technology, create jobs, boost overall productivity, enhance competitiveness and entrepreneurship, and ultimately eradicate poverty through economic growth and development (UN, 2002). The above assertion suggests that an expansion in the operations of multinational corporations (MNCs) in host countries can help alleviate poverty in said countries. A large literature

explores the relationship between foreign direct investment (FDI) and the growth rate of income in both developing and developed countries with inconclusive results. While some studies find no significant growth impact of FDI (e.g. Carkovic, Levine, 2002; de Mello, 1999), other studies find a positive relationship between FDI and income growth (e.g. Hansen, Rand, 2006; Krueger, 1983). Still other studies observe that there is heterogeneity in the relationship between FDI and income growth across countries (e.g. Chowdhury, Mavrotas, 2006). Nunnenkamp (2004) argues that FDI may have limited effects on growth and poverty alleviation in less developed countries. While several studies have investigated the relationship between FDI and income growth, what has not been well investigated was the effect of FDI on the maritime sector and thus employment generation. In Nigeria, some attempts have been made to examine the effect of globalisation on employment. However, few empirical studies (e.g. Olayinka, 2006 and Patterson, Okafor, 2006) that exist on effects of globalisation on employment looked at it on an economy-wide basis with divergent findings. Though the study of Aigbokhan (2004) was on the manufacturing sector, it concerned not the level of employment but the wage determination process in the sector. This study is therefore undertaken as an attempt to investigate the impact of FDIs on maritime job creation in Nigeria. Aside from contributing to knowledge, it would equally provide recent empirical discourse to a key sector in Nigeria - the maritime sector, given the global train of globalisation and its attendant competitiveness that is sweeping across the world.

4. RESEARCH METHODOLOGY

This research has a quantitative and spatial approach that is based on two kinds of data: network data on firms and foreign direct investments, and locational data of cities and districts. For the network data, two secondary databases have been used: FDI Markets (covers sectorial investments and includes information on source firm, date of project, source region, source longitude and latitude, destination city, destination longitude and latitude, firm activity, year of investment) and Orbis (includes information on firm, address, ownership, value of investments, number of jobs created in destination country, sector). For the location factors, specific data on the spatial characteristics of the districts is collected in a virtual field work (internet-based location resources and online street view websites), while general city data is used from secondary databases (CBN, 2015).

Similarly, primary data on the impact of foreign direct investments (FDIs) in port infrastructural development in Nigeria was collected using 480 questionnaires submitted (equation 1) using the stratified sampling technique in the ports of Apapa, Onne and Calabar (purposely singled out of the six operational ports in Nigeria). This allows for the easy and systematic collection of data from a chosen sample or representative population upon which analyses and inference were drawn.

$$\text{Necessary sample size} = (Z\text{-score})^2 * \text{StdDev} * (1 - \text{StdDev}) / (\text{margin of error})^2 \quad \text{Eq 1}$$

Based on the equation above, two hundred copies of the questionnaire were submitted in each of the ports of Apapa, Onne and Calabar. 132 copies were successfully retrieved in Apapa port, Lagos, representing a 66% retrieval success rate. In Onne port, Port Harcourt, 172 copies were reclaimed, representing 86% retrieval success rate while in Calabar port, Calabar, a retrieval success rate of 71% representing 142 copies of the questionnaire was achieved. Overall, 466 successfully retrieved questionnaires were used for analysis in the research, making up 77.7%. An additional 82 questionnaires above the minimum obtained using Smith (2000) sample size methodology represent a 17.6% increase in our effort to eliminate sampling bias. Therefore, our data is improved by 17.6% by every sample bias error committed in this research. The data collected was recorded and then

organized in such a format that is amenable to analysis in Statistical Package for Social Sciences (SPSS).

Initial Factor Analysis (FA) was performed on multiple data layers to achieve a manageable data size. Consequently, linear regression analysis was used to test whether there was a significant relationship between volume of FDIs attracted to Nigeria and the number of jobs created (equation 2). Geographic analysis of the FDIs' source origin and destination from 2003-2012 was undertaken in the Geographical Information System (GIS) environment. This showed the sectorial allocation of FDIs, the number of jobs created, the FDIs' source origin and the attraction location across the globe.

$$Y_i = (b_0 + b_1X_i) + \varepsilon_i \quad Eq 2$$

5. RESULTS AND DISCUSSION

5.1. Work status and placements of research respondents

The study investigated respondents' work characteristics which are revealed in Table 1. It indicates that 92.4 percent of respondents are from Africa (Nigeria) and 3.6 percent from Africa (non-Nigeria). The designations of Nigerian workers who participated in this study are at managing director position (13.9%), senior staff (36.8%), director (13%), general manager (4.0%) and personnel manager (9.4%). However, about 37.7% of these Nigerian staff are employed in the shipping/operation sector, 17% in the technical sector, 14.8% in finance, 8.1% in marketing, while 3.6% work in general administration. The composition of this employment distribution may not necessarily be a reflection of what exists in the Nigerian port structure at the moment, but only for the purpose of this study. One explanation for this observation is the reluctance of many staff, especially at the management level, to respond to the questionnaire. About 78.5% of respondents admit to having been in permanent employment status, while 17% are casually employed (Table 1). In terms of work experience (years), 6-10 years of work experience accounts for a majority at 23.3%, while 11–15 years' experience accounts for 21.5%.

Table 1

Work status and placement of respondents

| Variable | Freq. | Percent |
|---------------------------------|-------|---------|
| Continent | | |
| Europe | 4 | .9 |
| Africa (Nigeria) | 412 | 92.4 |
| N. America | 4 | .9 |
| Australia | 10 | 2.2 |
| Africa (non-Nigeria) | 16 | 3.6 |
| Designation of Nigerian workers | | |
| M.D Mgt | 62 | 13.9 |
| Senior Staff | 164 | 36.8 |
| Director | 58 | 13.0 |
| General Manager | 18 | 4.0 |
| Personnel manager | 38 | 8.5 |
| Others | 42 | 9.4 |
| Unspecified | 64 | 14.3 |
| Status of Employment | | |
| Casual | 76 | 17.0 |
| Permanent | 350 | 78.5 |
| Other | 2 | .4 |

Table 1 (continued)

| | | |
|-------------------------|-----|------|
| Unspecified | 18 | 4.0 |
| Department | | |
| Admin | 16 | 3.6 |
| Finance | 66 | 14.8 |
| Operation/Shipping | 168 | 37.7 |
| Technical | 76 | 17.0 |
| Marketing | 36 | 8.1 |
| Other | 28 | 6.3 |
| Unspecified | 56 | 12.6 |
| Work experience (years) | | |
| 0–5 | 76 | 17.0 |
| 6–10 | 104 | 23.3 |
| 11–15 | 96 | 21.5 |
| 16–20 | 60 | 13.5 |
| 21 above | 84 | 18.8 |
| Unspecified | 26 | 5.8 |

5.2. Foreign Direct Investments (FDIs) and employment generation in Nigeria

For the period under review (2003–2012), the number of jobs created by FDIs in Nigeria is discussed under functions and sectors. For FDIs by function, Table 2 shows the number of FDIs in Nigeria compared with values for both Africa and the world. The data revealed that FDIs in the manufacturing, sales, marketing & support, and business services functions was highest at the global level accounting for 32, 498, 30, 975 and 20, 816 respectively. The lowest FDIs were in recycling (442), Technical Support Centre (736) and Shared Services Centre (757) at the global level. In terms of Africa, the highest number of FDIs generated was in business services (1,173), manufacturing (1, 201) and sales, marketing & support (978). Whereas in Nigeria, the highest attraction of FDIs by function is in sales, marketing & support (42), manufacturing (39) and business services (37). While Nigeria did not attract any FDI in recycling out of the 757 global number and the African value of 3, it can be seen from the data that there seems to be a strong relationship between number of functional FDIs generated at the global level with national and regional FDIs.

Table 2

FDIs-function Nigerian values compared with African and global share (2003–2012)

| FDIs – Functions | No. in Nig. | Share in Nig. | Special-ty in Nig. | No. in Africa | Share in Africa | Global no. | Global share |
|-------------------------------|-------------|---------------|--------------------|---------------|-----------------|------------|--------------|
| Business Services | 37 | 3.2 | 1.19 | 1173 | 3.2 | 20816 | 0.1695 |
| Construction | 8 | 2.6 | 0.93 | 306 | 2.6 | 5787 | 0.0471 |
| Customer Contact Centre | 3 | 4.1 | 1.25 | 73 | 4.1 | 1615 | 0.0131 |
| Design, Develop. & Testing | 4 | 4.4 | 0.50 | 91 | 4.4 | 5382 | 0.0438 |
| Education & Training | 4 | 4.7 | 1.99 | 86 | 4.7 | 1350 | 0.0109 |
| Electricity | 5 | 5.9 | 1.77 | 85 | 5.9 | 1894 | 0.0154 |
| Extraction | 12 | 2.6 | 3.53 | 454 | 2.6 | 2278 | 0.0185 |
| Headquarters | 2 | 2.3 | 0.25 | 88 | 2.3 | 5392 | 0.0439 |
| ICT & Internet Infrastructure | 6 | 5.8 | 1.92 | 103 | 5.8 | 2091 | 0.0170 |
| Logistics, Dist. & Transport | 12 | 7.1 | 1.17 | 168 | 7.1 | 6887 | 0.0561 |
| Maintenance & Servicing | 5 | 7.6 | 2.36 | 66 | 7.6 | 1420 | 0.0115 |
| Manufacturing | 39 | 3.2 | 0.80 | 1201 | 3.2 | 32498 | 0.2647 |
| Recycling | 0 | 0.0 | 0.00 | 3 | 0.0 | 442 | 0.0036 |
| Research & Development | 1 | 3.8 | 0.28 | 26 | 3.8 | 2420 | 0.0197 |
| Sales, Marketing & Support | 42 | 4.3 | 0.91 | 978 | 4.3 | 30975 | 0.2523 |
| Shared Services Centre | 0 | 0.0 | 0.00 | 15 | 0.0 | 757 | 0.0061 |
| Technical Support Centre | 3 | 10.7 | 2.73 | 28 | 10.7 | 736 | 0.0059 |

Source: Central Bank of Nigeria (2015).

Other areas with a low FDI specialization in Nigeria include research & development (0.28), headquarters (0.25) and construction (0.93). A closer look at Table 2 also revealed that the level of specialization is dependent upon the total number of FDIs for a particular function at the global level. For example, while 37 FDIs in business services with a specialization value of 1.19 was attracted to Nigeria from a global number of 20,816, it can be seen that a lower number of FDIs in extraction (12) from a global number of 2,278 has a specialization value of 3.53, higher than the former (business services). A comparison of FDIs by function in Nigeria with African and global numbers is further attempted in Figure 2.

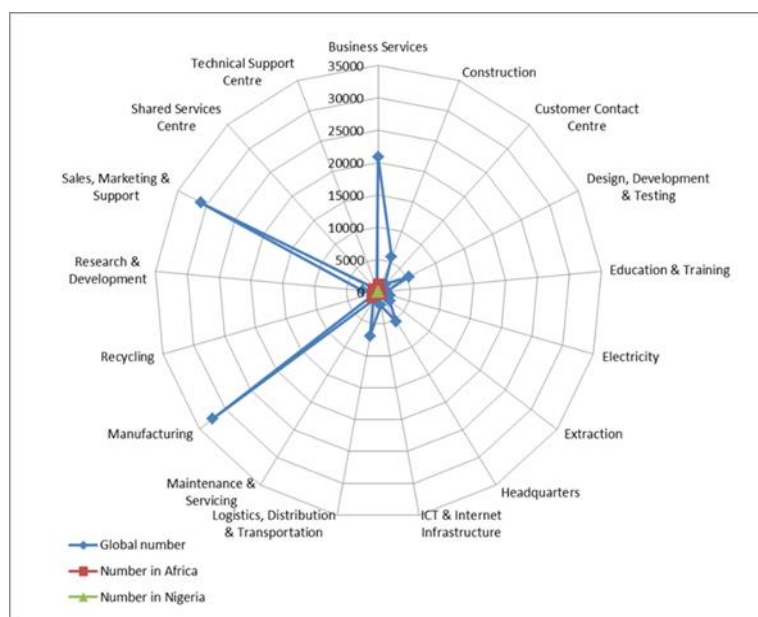


Fig. 2 – Comparison of FDIs by function in Nigeria with African and global numbers.

In terms of FDIs by sectors, Table 3 revealed that Software & IT services accounts for the highest number (14,876) and global share (0.1212) of FDIs. This clearly shows the direction of future investments and therefore it becomes disappointing that Africa and Nigeria attracted only 373 and 14 of these investments respectively. However, other sectors where Nigeria attracted reasonable number of FDIs relative to total global numbers include business services (22), Coal, Oil and Natural Gas (23), Communications (28), and Financial Services (20). Furthermore, the global share column in the same table shows Nigeria's strength in Consumer Products (14.5) of 2,225 global FDIs; Engines & Turbines (22.2) of 619 global FDIs; Healthcare (7.7) of 563 global FDIs; and Space & Defence (40.00) of 199 global FDIs. Other sectors where Nigeria has fared badly include Automotive Components, Biotechnology, Ceramics & Glass, Minerals, Non-Automotive Transport OEM, Semiconductors, Wood Products, etc., where she attracted zero FDIs in the period under review. This development is not healthy for the Nigerian economy as the above sectors also accounts for major employment sources if properly harnessed to attract FDIs. Coal, Oil and Natural Gas attracted 23 FDIs of 3,471 global number, and out of 438 attracted to Africa. Despite a specialization value of 4.09, the implication of this data reveals Nigeria's failure to utilize her comparative advantage in this sector as the mainstay of her economy. A critical look at this Table can offer understanding of FDIs trend and thus provide for effective policy formulation that focuses on the strengths or comparative advantages of the country.

Data in Fig. 3 revealed that the majority of job-generating FDIs came from developed regions (G7) mostly in the United States of America and Japan; and developed regions (nonG7) such as

European countries and Australia. A few FDIs were generated from the emerging (BRIC) region of Russia, Brazil and Turkey. Only very few FDIs are seen to be originated from the developing region of which Nigeria is part. This clearly shows the lack of – or the very low volume of - trade amongst countries of the developing regions. It is interesting however to see some investments from mostly South Africa and Zimbabwe. Ghana also remains an FDIs source country with a few created jobs in Nigeria.

5.3. Volume of FDIs and the number of jobs created in Nigeria.

A Simple Regression Analysis was used to test for this relationship between the volume of FDIs and the number of jobs created in Nigeria. The real number of FDIs attracted to Nigeria and the number of created jobs accompanying each FDI was used as obtained from CBN (2015). Table 4 provides the value of R and R² for the model that has been derived. For these data, R has a value of .423 and because there is only one predictor, this value represents the simple correlation between the number of FDIs and the number of jobs created. The value of R² is .179, which similarly revealed that FDIs can account for 17.9% of the variation in created jobs. In other words, if we can explain why more jobs are created by different FDIs, we may be able to look at the variation in created jobs. There might be many factors that can explain this variation, but the model, which includes FDIs, can explain approximately 18% of it. This means that 82% of the variation in created jobs cannot be explained by FDIs alone. Therefore, there must be other variables that also have an influence.

Table 3

FDIs (sectors) Nigerian values compared with African and global share (2003–2012)

| FDIs – Functions | Number in Nigeria | Share in Nigeria | Specialization in Nigeria | Number in Africa | Global number | Global share |
|--------------------------------------|-------------------|------------------|---------------------------|------------------|---------------|--------------|
| Aerospace | 1 | 2.0 | 0.53 | 51 | 1174 | 0.0096 |
| Alternative/Renewable energy | 3 | 3.3 | 0.87 | 90 | 2128 | 0.0173 |
| Automotive Components | 0 | 0.0 | 0.00 | 89 | 4515 | 0.0368 |
| Automotive OEM | 4 | 2.2 | 0.84 | 179 | 2951 | 0.0240 |
| Beverages | 1 | 1.0 | 0.57 | 100 | 1081 | 0.0088 |
| Biotechnology | 0 | 0.0 | 0.00 | 10 | 674 | 0.0055 |
| Building & Construction Materials | 4 | 3.5 | 2.05 | 113 | 1206 | 0.0098 |
| Business Machines & Equipment | 3 | 5.4 | 1.20 | 56 | 1538 | 0.0125 |
| Business Services | 22 | 4.5 | 1.16 | 490 | 11671 | 0.0951 |
| Ceramics & Glass | 0 | 0.0 | 0.00 | 17 | 669 | 0.0055 |
| Chemicals | 4 | 2.6 | 0.51 | 152 | 4799 | 0.0391 |
| Coal, Oil and Natural Gas | 23 | 5.3 | 4.09 | 438 | 3471 | 0.0283 |
| Communications | 28 | 7.1 | 2.75 | 397 | 6283 | 0.0512 |
| Consumer Electronics | 3 | 5.6 | 1.17 | 54 | 1580 | 0.0129 |
| Consumer Products | 9 | 14.5 | 2.49 | 62 | 2225 | 0.0181 |
| Electronic Components | 6 | 6.4 | 0.92 | 94 | 4010 | 0.0327 |
| Engines & Turbines | 2 | 22.2 | 1.99 | 9 | 619 | 0.0050 |
| Financial Services | 20 | 2.0 | 1.02 | 999 | 12097 | 0.0986 |
| Food & Tobacco | 13 | 5.6 | 1.96 | 234 | 4098 | 0.0334 |
| Healthcare | 3 | 7.7 | 3.29 | 39 | 563 | 0.0046 |
| Hotels & Tourism | 8 | 3.5 | 1.46 | 231 | 3388 | 0.0276 |
| Industrial Machinery, Equip. & Tools | 4 | 2.2 | 0.35 | 181 | 7019 | 0.0572 |
| Leisure & Entertainment | 0 | 0.0 | 0.00 | 17 | 391 | 0.0032 |
| Medical Devices | 0 | 0.0 | 0.00 | 17 | 1428 | 0.0116 |
| Metals | 3 | 0.7 | 0.37 | 413 | 5049 | 0.0411 |
| Minerals | 0 | 0.0 | 0.00 | 96 | 361 | 0.0029 |
| Non-Automotive Transport OEM | 0 | 0.0 | 0.00 | 37 | 799 | 0.0065 |
| Paper, Printing & Packaging | 1 | 2.5 | 0.53 | 40 | 1156 | 0.0094 |
| Pharmaceuticals | 4 | 5.8 | 1.07 | 69 | 2301 | 0.0187 |

Table 3 (continued)

| | | | | | | |
|------------------------|----|------|------|-----|-------|--------|
| Plastics | 0 | 0.0 | 0.00 | 58 | 2703 | 0.0220 |
| Real Estate | 2 | 1.2 | 0.30 | 164 | 4155 | 0.0339 |
| Rubber | 1 | 3.7 | 0.57 | 27 | 1087 | 0.0089 |
| Semiconductors | 0 | 0.0 | 0.00 | 9 | 1574 | 0.0128 |
| Software & IT services | 14 | 3.8 | 0.58 | 373 | 14876 | 0.1212 |
| Space & Defence | 2 | 40.0 | 6.20 | 5 | 199 | 0.0016 |
| Textiles | 1 | 1.3 | 0.37 | 75 | 1673 | 0.0136 |
| Transportation | 8 | 3.7 | 0.88 | 214 | 5626 | 0.0458 |
| Warehousing & Storage | 2 | 4.3 | 1.19 | 46 | 1035 | 0.0084 |
| Wood Products | 0 | 0.0 | 0.00 | 5 | 568 | 0.0046 |

Source: Central Bank of Nigeria (2015).

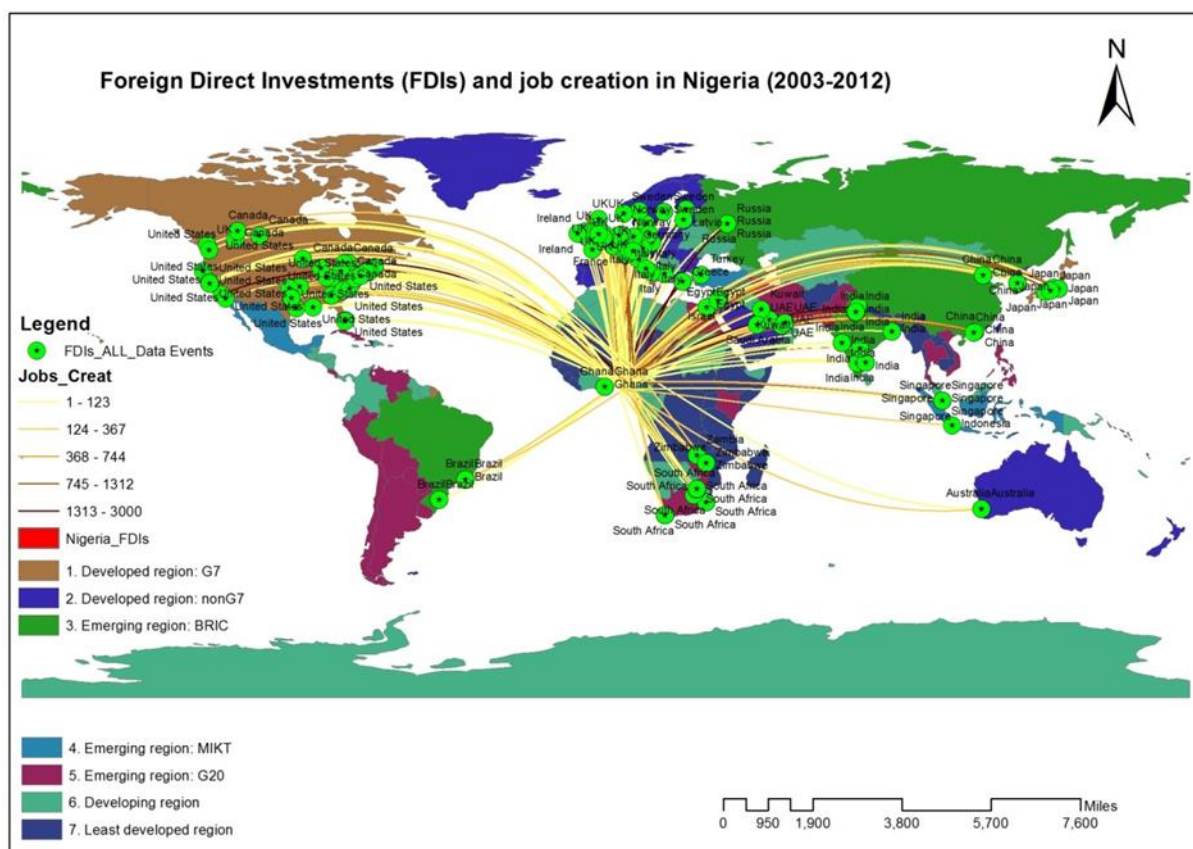


Fig. 3 – FDIs and regional employment sources to Nigeria.

Table 4

Model Summary^b of FDIs and created jobs in Nigeria (2003–2012)

| Model | R | R ² | Adjusted R ² | Std. error of the estimate | Change statistics | | | | | |
|-------|-------------------|----------------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|---------------|
| | | | | | R ² change | F change | df1 | df2 | Sig. F change | Durbin-Watson |
| 1 | .423 ^a | .179 | .176 | 945.23537 | .179 | 68.281 | 1 | 313 | .000 | 1.818 |

a. Predictors: (Constant), Jobs_created

b. Dependent Variable: FDI_s_Real_Numbers

Table 5 reports an analysis of variance (ANOVA). The summary table shows the various sums of squares and the degrees of freedom associated with each of them. From these two values, the average sums of squares (the mean square = 61006861.046) can be calculated by dividing the sums of squares by the associated degrees of freedom (1). The most important part of the table is the F-ratio, and the associated significance value of that F-ratio. For these data, F is 68.28 which is significant at $p < .001$ (since the value in the column labelled Sig. is less than .001). This result revealed that there is less than a 0.1% chance that an F-ratio this large to happen if the null hypothesis were true. Therefore, it can be concluded that the regression model result is a significantly better prediction of created jobs than using the mean value of created jobs. In short, the regression model overall predicts FDI's created jobs significantly well.

The ANOVA shows whether the model overall results in a significantly good degree of prediction of the outcome variable. However, it fails to reveal the individual contribution of variables in the model (although in this simple case there is only one variable in the model and so it can be inferred that this variable is a good predictor). Table 6 provide details of the model parameters (the beta values) and the significance of these values (equation 3).

$$Y_i = (b_0 + b_1X_i) + \epsilon_i \quad \text{Eq 3}$$

Table 5

ANOVA^a

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|-----|--------------|--------|-------------------|
| Regression | 61006861.046 | 1 | 61006861.046 | 68.281 | .000 ^b |
| 1 Residual | 279656080.215 | 313 | 893469.905 | | |
| Total | 340662941.262 | 314 | | | |

a. Dependent Variable: *FDIs_Real_Numbers*

b. Predictors: (Constant), *Jobs_created*

Table 6

Coefficients^a of model of FDI's and jobs created in Nigeria

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|-------|-------------|-----------------------------|------------|---------------------------|-------|------|---------------------------------|-------------|--------------|---------|------|-------------------------|-------|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| | | | | | | | | | | | | | |
| 1 | (Constant) | 72.500 | 61.851 | | 1.172 | .242 | -49.197 | 194.196 | | | | | |
| | JobsCreated | 1.092 | .132 | .423 | 8.263 | .000 | .832 | 1.352 | .423 | .423 | .423 | 1.000 | 1.000 |

a. Dependent Variable: *FDIs_Real_Numbers*

where b_0 was the Y intercept and this value is the value B for the constant. So, from the Table, it can be inferred that b_0 is 72.500, which can be interpreted as meaning that when no FDI's are attracted into the country, (when $X = 0$), the model predicts that 1.092 jobs will be created. The value of b_1 (1.092) from the table can be read off and this value represents the gradient of the regression line. Although this value is the slope of the regression line, it is more useful to think of this value as representing the change in the outcome associated with a unit change in the predictor. Therefore, if our predictor variable is increased by one unit (if the FDI's is increased by 1), then our model predicts that 1.092 extra jobs will be created.

As can be seen in Table 6, in general, values of the regression coefficient b represent the change in the outcome resulting from a unit change in the predictor and that if a predictor has a significant impact on our ability to predict the outcome, then this b should be different from 0 (and big relative to

its standard error). The t-test revealed to us whether the b-value is different from 0. Our out result provides the exact probability that the observed value of t would occur if the value of b in the population were 0. If this observed significance is less than .05 (as in our case), then scientists agree that the result reflects a genuine effect. Based on the above, the null hypothesis is rejected, instead it can be confirmed that there is a significant relationship between the volume of FDIs attracted to Nigeria and the number of jobs created, $t(313) = 8.263, p < 0.01$.

For these two values, the probabilities are .000 (zero to 3 decimal places) and so we can say that the probability of these t-values or larger occurring if the values of b in the population were 0 is less than .001. Therefore, the bs are different from 0 and concluded that the FDIs make a significant contribution ($p < .001$) to predicting jobs created in Nigeria.

So far, the model is found to be a useful one, that significantly improves our ability to predict created jobs resulting from FDIs attracted into Nigeria. However, it is often a useful model to make some predictions. The first stage is to define the model by replacing the b-values in equation with the values from Table 6. In addition, replace the X and Y with the variable names so that the model becomes:

$$\begin{aligned} \text{created jobs} &= b_0 + b_1 \text{FDIs} && \text{Eq 4} \\ &= 72.50 + (1.092 * \text{FDIs}) \end{aligned}$$

6. SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The study employed factor analysis in articulating the opinion of respondents drawn from the study area made up of three Nigerian ports including Apapa (Lagos), Onne (Port Harcourt), and Calabar (Calabar). Nine factors were then drawn from several variables that formed the basis for hypotheses tests using linear analysis. Data on the sectorial allocation of FDIs in Nigeria from across the world was sourced and obtained from the Central Bank of Nigeria wherein all FDIs from 2003 to 2012 were revealed. The data also included the geography of origin and destinations of FDIs as well as the sectorial creation of FDIs-related employment in the destination country. Empirical findings from our study confirmed that there is a significant relationship between the volume of FDIs attracted to Nigeria and the number of jobs created, $t(313) = 8.263, p < 0.01$. This is in line with the findings of Asiodu (2004) that, in order to realise the employment benefits of FDI (higher wages, increased worker productivity and technology transfer), Sub-Saharan Africa needs to attract investments in non-natural resource industries. This result is important because FDI in the region is concentrated in natural resources. This finding corroborates earlier findings of Idowu and Awe (2014) where they observed that human capital has a positive impact on multinational employment. In addition, the seminal work of Borenstein *et al.* (1998) also shows that FDI promotes growth only when the stock of human capital in the host country exceeds some minimum threshold. These two results imply that, in order to boost multinational employment and also benefit from the growth-enhancing effects of FDI, Africa needs to educate its population. This is important because illiteracy is prevalent on the continent and, indeed, in Nigeria as well.

About 33 industry sectors have attracted FDIs since 2003 and 2012. Of all 33 sectors, the coal, oil and natural gas sector expectedly leads the chart with about \$80,843.64 and 16,350 created jobs for the period under review. Communication appears to be the next sector with huge potential FDIs accounting for about 9,441 jobs in the ten years taken under consideration, with the emergence of mobile telephony in 2009 such as MTN, GLO, ECONET, and so on, as private corporations brought with it some form of communication and business revolution in Nigeria. There is a significant relationship between the volume of FDIs attracted to Nigeria and the number of jobs created. Leaning on our research finding and extensive background to the study, it was therefore concluded that FDI in Nigeria have not been encouraging, as a result of major domestic flaws in the country such as an

unstable business environment, poor investment regulatory policies, frequent industrial disputes, uncertain domestic economy, poor private investment policy, poor infrastructure-base, poor investment credit facilities, political uncertainty, and poor raw material-base. On the basis of our findings, the major conclusion that can be drawn from the study is that the Nigerian maritime sector is yet to fully reap the benefits of FDI, as its impact on growth is, at the moment, very reduced. This corroborates Okon and Edem's (2019) findings that the enactment of the cabotage law is yet to strongly impact the annual income as well as the employment status of Nigerians. Though, the contribution of FDIs in the oil sector, manufacturing, automotive OEM, building and construction, food and tobacco, hotel and tourism, real estate, and transportation has been resounding (Okon, Wada & Okpiliya, 2018). However, hopes are rift that if round pegs are put in round holes, the anticipated benefits of FDI will begin to manifest in Nigeria.

To improve on the inflow of our foreign direct investment (FDI), Government should therefore invest more in infrastructure (like power, communication, transportation and energy) and ensure the availability of other needed facilities that can attract and boost the productive capacity of direct foreign investors, so that more investors can come into the country since effective productivity of present direct investors will attract more foreign investors. With respect to the real exchange rate and FDI inflows, the government should allow naira (Nigeria currency) to depreciate more since it will reduce the dollar price of some ailing indigenous companies, thus attracting more foreign investment (in the form of mergers and acquisition). Improving policy and regulatory environment, tax reforms, investors tax, friendly tax and legal systems, as well as the removal of capital controls are all essential to FDI attraction and contribution to economic growth.

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THE INFLUENCE OF NATION BRANDING ON TOURISM – HOW SLOVAKIA COMPARES TO AUSTRIA IN NATION BRANDING

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Key-words: nation branding, tourism, Brand Index, Slovakia, Austria.

Abstract. Nation branding is one of the tools by which countries may positively influence their international reputation. Tourism has a huge impact on how a country is perceived and its support directly contributes to creating a positive nation brand image. The purpose of this paper is to present a comparison between Austrian and Slovak tourism and propose recommendations for its improvement. Furthermore, this paper utilizes lessons learned and best practices from the Republic of Austria that could be applicable in Slovakia in the context of tourism to improve its nation branding. Based on the objective and subjective secondary data, the paper compares the position of Austria and Slovakia in nation branding indexes. Data are extracted from the following three indexes: Bloom Consulting Digital City Index, Good Country Index, and the Future Brand Index. The paper points out the close connection between Austrian nation branding and tourism, while data from Slovakia do not indicate such connection. All the above-mentioned indexes are highly and significantly correlated, despite the fact that they use different approaches, methodologies, and data.

1. INTRODUCTION

There are many definitions under the word “brand”. Jay Baer defines a brand “as the art of aligning what you want people to think about your company with what people actually do think about your company. And vice versa” (Baer, Naslund, 2013). According to Leo Burnett, a symbol is “anything that leaves a mental picture of the brand’s identity” (Cohen, 2011). To further explain the issue, we would prefer the definition of a Business Dictionary (2020), which says the brand is the “unique design, sign, symbol, words, or a combination of these, employed in creating an image that identifies a product and differentiates it from its competitors. Over time, this image becomes associated with a level of credibility, quality, and satisfaction in the consumer’s mind.” According to the American Marketing Association, a Brand is a “name, term, sign, symbol, design, or a combination of them, intended to identify the goods and services of one seller or a group of sellers and to differentiate them from those of the competition” (Keller, 2003). The country brand can be defined as a unique, multi-dimensional mix of elements that the state provides due to its cultural background and its differentiation from other countries, as well as relevance for all target groups (Dinnie, 2015).

Destination branding is a relatively new marketing concept. From the perspective of tourism and the creation of the country’s brand, it is crucial to raise a country’s brand awareness. Undoubtedly, we are seeing that travel and tourism are becoming the fastest growing global industry. For many countries, tourism is an important factor in their economic stability - mainly due to their geographical location - for example, access to the sea is a key factor in choosing a holiday destination. Today, however, we can see that the countries without access to the sea or mountains have also become attractive tourist destinations. As Ielenicz and Simoni underline, it is because tourism is a complex and multidisciplinary field of study and practice (Ielenicz, Simoni, 2013). According to Papadopoulos and Heslop (2002) “place branding” (or destination branding, place promotion) is a relatively recent *umbrella approach* of country branding, region branding and town branding.

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We must understand that at the beginning of the 21st century, geographical location ceases to be a key factor in choosing a destination for tourism. Destination branding is coming to the forefront and countries are trying to build their image and brand on positive promotion and presentation. According to Morgan, Pritchard and Piggott (2002), “the battle for the customer in tomorrow’s destination marketplace will be fought not over price, but over hearts and minds- in the territory of brands.”

In the context of tourism, the World Tourism Organization acknowledges that there is a tendency to see destinations as a “fashion accessory” in the sense that the destination is viewed in the same way as it is possible to define the identity of a person or company (UNWTO, 2001).

Destinations that behave like a brand meet the basic criteria and are required to comply with the needs of tourists. People decide to travel to a specific country based on their desire for special features such as the country’s climate, equipment or cultural attributes. Even if a country has a strong international presence, current political events may create or change the image of the country and its identity. In this sense, creating a coherent picture of the country is challenging because people react uncontrollably to political events (Kóňa, 2017). One of the main sources of information about the country is foreign media, which are the disseminators and, to a large extent, the creators of the country’s brand. For this reason, the perception of the destination may be different in each country (Kóňa, 2017).

It is obvious, that tourism is closely connected to culture, which is one of the corner stones of nation and state building efforts, which further lead to nation branding. Some extremely promising results on cultural tourism derive from the international project “SPOT – Social and Innovative Platform on Cultural Tourism” (SPOT, 2020), especially the data set they are working on named Social Platform on Cultural Tourism Innovation Tool. Authors try to compare case studies from different European countries focusing on cultural tourism. How a country is perceived by citizens of another country may be defined also as nation branding. According to Tim Marshall, when people look at the flag, associations and impressions are created that illustrate the success or failure of that country in the world (Marshall, 2017).

The same principle works for products. If a country specializes in the production of a product, invests money in research, and produces quality products, the association will soon appear when the country is mentioned or when its flag is seen. If we mention Japan, we think of high-tech products; Germany - automobiles; Saudi Arabia – oil; or Ireland – whiskey. On the other hand, if we ask an American manager about Egypt, he or she will probably imagine a pyramid, a vacation and the sea. This country is associated with a suitable place for a vacation. However, Egypt is not just a vacation country, it produces up to \$ 547 million worth of men’s knitted suits a year, and 40,3% of that exports to the United States (OEC, 2018). The American manager does not have an association with suits. Egypt’s nation branding is not strong, and it focuses mostly on tourism. Each country has its own way of being perceived abroad. Its image may change because of its foreign policy, organizations or economic diplomatic missions. This is the way in which the United States can be seen as the worldwide defender of human rights in one country, the superpower of technological achievements in another country, and possibly, in a different country, a military threat. Sometimes these disparities in perception can be found within the same country.

This analysis focuses on the comparison of two neighbouring countries, Slovakia and Austria, in the area of nation branding connected to national tourism. Despite the differences in population structure, size, as well as national economy, the two countries share much more similarities than obvious at first glance. First of all, both countries are direct neighbours, sharing almost 400 years of common history within the Habsburg monarchy and Austro-Hungarian Empire. Most of today’s historical and tourist attractions in both countries have been built during that period. People-to-people contacts knew almost no barrier at that time as the German language was widespread among the population in the territory of today’s Slovakia, and economic ties were extremely strong as well. Secondly, the geographical proximity leads also to geographical similarities of the terrain of both

countries, including mountains – Tatras in Slovakia and the Alps in Austria, and (mountain) lakes, which are considered to be key elements and main tourist attractions. Finally, the author of the analysis pays special attention to the capital cities – Bratislava and Vienna, which are unique global phenomena when it comes to their geographical proximity – the closest capitals in Europe. Based on the comparative analysis of both cases, the author draws recommendations, lessons learned and best practices transferrable to the Slovak republic and its efforts in nation branding through tourism.

2. METHODOLOGY

The main objective of this research is to comparatively analyse the influence nation branding has on national tourism for two neighbouring countries, namely the Republic of Austria and the Slovak Republic. The main sources used in this paper are domestic and foreign scientific articles, official websites of measuring indexes of nation branding, their reports, and the census bureaus of the relevant countries. The qualitative research method alongside comparative analysis are prevailing tools utilized in this paper. We identified three nation brand indices and compared the data regarding the Republic of Austria and the Slovak Republic. Special attention was paid to those indices that include tourism as a factor in the countries mentioned. In order to illustrate the findings better, we use two tables that contain general data and the data specific to Slovakia and Austria in nation brand indices. This research uncovered lessons learned and best practices from the Republic of Austria that could be applicable in Slovakia in the context of tourism to improve its nation branding.

3. RESULTS AND DISCUSSION

The geographical proximity, shared history and common cultural heritage between Slovakia and Austria, naturally attract the attention of, among many others, political scientists, economists and sociologists. The current research, encompassing and comparing Slovakia and Austria, and, in particular its capitals – Bratislava and Vienna, is vastly focusing on cross-border cooperation (Jaššo, Finka, Giffinger). Cross-border cooperation brings a lot of prospects on how to boost economic progress, people to people contacts and how to deepen the integration processes (De Sousa, 2013). The pioneering theoretical and empirical international project in our context is Interreg supported European region CENTROPE, which offers a unique dataset on interregional transportation, urbanization, water management etc. (CENTROPE Map, 2020). In order to contribute to this discussion, we have identified a distinguished approach to the comparison between Slovakia and Austria, Bratislava and Vienna respectively, which is not mainstreamed in the current discourse. We focus on the effects of tourism in the nation branding efforts, using three different dataset indices – Bloom Consulting Digital City Index, The Good Country Index and The Future Brand Index.

3.1. Bloom Consulting Digital City Index

This is an index that evaluates the attractiveness of 136 cities from the perspective of potential tourists. However, this index does not consist of questionnaires or publicly available information. The authors of the index use their own program called Digital Demand - D2 © to evaluate the strength of the city brand. Its algorithm works on the principle of processing the so-called big data, which is used to determine the digital demand for a particular city. In other words, it records how many times and under what circumstances people search for information about a certain city. The final output is in the form of a specific number of searches. These searches have their own principle. Under the category of tourism, the authors included 3 so-called “Brandtag” families, which include general information,

accommodation and tourist activities. Each of these families has 112 “Brandtags”, accounting for 140 million keyboard shortcuts, which is ultimately about 260 million valid searches (Bloom Consulting Index, 2017). Based on “Brandtag” families, we will discuss the rating of the capital cities of Austria and the Slovak Republic. Since some of the general information is not specified by the authors, it cannot be analysed. Therefore, we will go directly to accommodation and tourist activities. Vienna ranked 9th and Bratislava – 45th (Bloom Consulting Index, 2019).

If we look closely at the accommodation, we can notice the first difference and the logical reason why accommodation was searched for more in Vienna. According to Eurostat data, Bratislava has 247 accommodation options (it includes hotels, hostels etc.) (Eurostat, 2018a), while Vienna has 1735. It is therefore logical that Viennese accommodation was searched for more, but we must understand the basic law of supply and demand, in which the number of accommodation possibilities increases with more tourist arrivals. In 2018, almost 5.8 million tourists came to Vienna, while fewer than a tenth came to Bratislava, almost 508,000 (Eurostat, 2018b). In terms of nights spent, tourists spent a total of almost 13 million nights in Vienna and 1.7 million nights in Bratislava (Eurostat, 2018c). Naturally, cities are more attractive to tourists if there is a higher concentration and diversity of attractions. According to the data provided by the official Vienna tourist guide website, there are the 133 most important tourist attractions in Vienna (Wien, 2020). On the webpage of comparable sources about Bratislava, around 41 tourist attractions could be found (Visit Bratislava, 2020). Similar conclusions are drawn from the comparison based on the Vienna and Bratislava hashtags on Instagram. If an Instagram user shares a post with this hashtag, we can assume, based on empirical verification, that they will share photos of the parts of the city that they were impressed with. The hegemony of Vienna over Bratislava is shown in an example of Instagram hashtags. Over 515,000 (Instagram, 2020a) people shared their posts with the *Viennacity* hashtag, but only 91.9,000 (Instagram, 2020b) people shared the *Bratislavacity* hashtag. Thus, we can say that Vienna has more attractions that tourists visit, and of such quality that they want to share them on social networks. The leading position of Vienna compared to Bratislava in this index is not a result of the number of accommodation facilities but the number of quality attractions that can attract the same or bigger number of people than Vienna.

3.2. Good Country Index

The concept of the Good Country Index is relatively simple: to measure the extent to which individual states contribute to the common good of humanity and, to the contrary, what they take away given their size. Using a wide range of data from the UN and other international organizations, countries receive a questionnaire to clearly show whether they are the creditors of humanity, its burden or something in-between. The goal is not to pass judgement on them. What the index is trying to say about the “Good country” is how much it contributes to the greater good of the world (Good Country, 2019a). However, the aim of our work is not to assess contributions to world prosperity but to assess the tourism of countries. Austria reached 18th place in this index and the Slovak Republic 28th place (Good Country, 2019b). Therefore, both countries attract millions of tourists each year, who can rely on a unique cultural and nature-related experience, safety and tolerance in both countries.

3.3. The Future Brand Index

The Future Brand Index compares perceptions of 118 countries across the world. It applies the same principle as corporate brands – they are evaluated regarding their strength, which affects customers according to the assigned dimensions. The Future Brand Index is considered a pioneer in this approach, which implies that a country's brand can be seen as a sum of its identity and reputation (Future Brand Index, 2019).

The team of Future Brand collected quantitative and qualitative data from 2530 questionnaires from international tourists traveling for work or holiday in 17 countries, namely – USA, Canada, Brazil, Argentina, Mexico, the United Kingdom, Germany, France, Russia, Turkey, South Africa, the United Arab Emirates, India, China, Thailand, Japan, Australia. The questionnaire was created on the basis of the index authors' own model –the Hierarchical Decision Model (HDM) – to show the extent to which respondents perceive individual countries on a scale from country brand awareness to the decision to visit a country. HDM consists of six dimensions. Namely, awareness, familiarity, preference, association, consideration, and decision/visitation. For research purposes, we are focused mainly on the “association” dimension and its six attributes: the value system, quality of life, business potential, heritage and culture, tourism and “made in”. The authors of the index used a sample of the 2530 respondents on the basis of QualiQuant™ criteria. The respondent has to be on the scale from 21 to 65 years old, has to have awareness or acquaintance with the countries covered by the index, a positive attitude towards travelling abroad, has to have travelled abroad at least once a year (either for vacation or work). In terms of the structure of respondents, men and women have to be equally represented (Future Brand Index, 2019).

In these questionnaires, respondents were asked to answer questions such as: How well do you know that particular country? What do you think about when this country is mentioned? To what extent do you value the country? Would you visit this country? Would you invest in it? Would you buy a product from the country? The Future Brand Index does not provide a full report on the Slovak Republic, which is why we compared its data continuously with data from Austria.

In 2019 Austria ranked 9th, between Canada and Luxembourg, in the Future Brand Index. Compared to the 2014 result, Austria has improved its position from 10th place. Slovakia ranked 35th in 2019 and improved its position from 59th place (Future Brand Index, 2019).

The main focus of this paper is on tourism and despite the fact that the Future Brand Index has a special dimension focusing on tourism, we will discuss two other dimensions and their selected attributes. The reason for this is the belief that tourism is influenced by factors from other dimensions as well.

The first dimension is a value system that discusses political freedom, nature conservation and tolerance. In this dimension, political freedom and tolerance are the factors that most influence tourism. According to information from Eurostat, approximately 27 million tourists visited Austria in 2018, while Slovakia was visited by 3.2 million tourists, which is almost 9 times fewer (Eurostat, 2018b). One of the reasons for this result could be the political freedom in the country. If tourists consider the country to be politically unfree, they may be worried about protests and demonstrations on the streets. In this case it is not a forcible argument. According to Freedom House, both countries are considered politically free. However, Austria has a score of 93 while the Slovak Republic has a score of 88 (Freedom House, 2019).

Another dimension is heritage and culture, which consists of historical points of interest, heritage, art and culture and natural beauty. Tourists tend to visit cities and regions where they have the opportunity to get to know the culture of the country and its nature. This fact is also proved by UNESCO data in conjunction with data from Eurostat. Austria has 10 UNESCO World Heritage sites and these sites correspond directly to the intensity of tourism (UNESCO, 2020). One of the mentioned sites is the historic city of Graz, which attracted almost 2.5 million tourists to Styria (Steiermark) in 2018. Prehistoric pile dwellings around the Alps attracted 1.2 million tourists to Carinthia (Kärnten). Thanks to the Carpathian Forests, 1.6 million tourists also visited Upper Austria (Oberösterreich). Based on the aforementioned analysis, we may see these historic and natural places are an important part of the country's tourism. In spite of it, we know that a large number of tourists, especially young people, seek entertainment and the particular atmosphere of the city. We can see this difference even more significantly in the case of the Slovak Republic. In 2018 almost 0.508 million tourists came to the capital city, Bratislava, compared to those visiting the small village Vlkolinec in central Slovakia, a UNESCO heritage site, that is 2 times more tourists – 1.231 million (UNESCO, 2020).

The dimension of tourism is most informative for this paper, and Future Brand defines it as a mix of attributes, which are: Value for Money, Range of Attractions, Resort and Lodging Options, Would Like to Visit for a Holiday, and Food. Referring to the attribute Range of Attractions, Austria offers tourists many types of relaxation opportunities, such as lakes, skiing, hiking, visiting major cities and exploring their culture and history. More than 45% of respondents perceive Austria as a country with a wide Range of Attractions, and in the world's social networks, Vienna is described as a city with unique architecture and a place that is worth visiting (Future Brand Index, 2019). Tourists may also be attracted to Austria because of composers such as Mozart, Schubert or Wagner. Referring to the attribute Resort and Lodging Options, there are 21,494 accommodation facilities in Austria, which is 3 times more than in Slovakia. Most of them are in Western Austria – 12,705. The Slovak Republic has the most accommodation facilities in Central Slovakia- 1179 (Eurostat, 2018a). The common denominator of these areas is that they offer tourists the possibility of skiing and hiking. According to the Future Brand Index, up to 55% of respondents answered they would like to visit Austria. According to information from social networks, they perceive Austria as a beautiful country mainly due to nature and cultural uniqueness.

Table 1

General Comparison: Bratislava and Vienna

| Factor | Bratislava | Vienna |
|---|------------------------|-----------------------|
| <i>Population (million)</i> | 1.91 | 0.669,592 |
| <i>Total area</i> | 367.6 km ² | 414.6 km ² |
| <i>Gender Equality</i> | 54.1 | 65.3 |
| <i>DigitalCity Index – Ranking by the number of the internet searches</i> | 45 th place | 9 th place |
| <i>Arrivals at tourist accommodation establishments by NUTS 2 (2018)</i> | 507,758 | 5,724,543 |
| <i>Nights spent at tourist accommodation establishments by NUTS 2 regions</i> | 1,724,222 | 12,887,502 |
| <i>Number of establishments, bedrooms and bed-places by NUTS 2 regions</i> | 247 | 1,735 |

Source: Authors' own elaboration based on a variety of sources.

Table 2

Branding Index Ranking

| Ranking | Slovakia | Austria |
|---|------------------------|------------------------|
| <i>Bloom Consulting Index 2018</i> | 31 st place | 18 th place |
| <i>Global Innovation Index 2018</i> | 36 th place | 21 st place |
| <i>The Global Competitiveness Index 2017–2018</i> | 65 th place | 19 th place |
| <i>DO International Business Compass 2018</i> | 39 th place | 15 th place |
| <i>Good Country Index 2018</i> | 28 th place | 18 th place |
| <i>Future Brand Index 2014</i> | 59 th place | 10 th place |
| <i>Future Brand Index 2019</i> | 35 th place | 9 th place |

Source: Authors' own elaboration based on a variety of sources.

4. CONCLUSIONS/ IMPLICATION FOR PRACTICE

The foregoing analysis has attempted to compare Slovakia and Austria as two neighbouring countries applying the data from existing nation brand indexes. Furthermore, the paper focused on comparing their capital cities, namely Vienna and Bratislava. The general finding is that Austria ranked better in all of the above-mentioned indices compared to Slovakia for several reasons. Firstly, as per the Bloom Consulting Index, the internet marketing and the usage of social media to its full capacity is managed better by Austria than Slovakia. The more targeted usage of the “hashtag” also contributed to a higher number of visits on its Facebook and Instagram pages. Secondly, the higher

number of tourist arrivals is also related to the number of attractions in the city. The more attractions, the more tourist arrivals, which leads to increased accommodation capacities offered by Vienna itself. Following this logic, it is necessary to exploit the full potential of the existing attractions and think outside the box in creating new attractions. Subsequently, that will spark the infrastructure building efforts, namely building and modernising hotels, hostels or campsites in Slovakia, following the example of Austria. From the results of the next index mentioned, “The Good Country”, we may see that Austria has confirmed its stronger position compared to Slovakia. Drawing from the information provided in the “Culture” category, we infer that Austria, and Vienna itself, are more attractive to tourists due to the diversity of its cultural and other attractions. Moreover, we assume a more successful Nation Branding of the whole country from the results of the given index. Despite the fact that both Slovakia and Austria are politically stable democratic countries, Austria has ranked higher in the category of “tolerance and political freedom” as per the Futurebrand Index. It may be the result of recent historical events, such as demonstrations and the investigations of political corruption in Slovakia.

Based on the findings, we specifically recommend to expand on and improve the nationwide internet promotion of Bratislava and the main tourist places of Slovakia by using social media, such as Instagram and Facebook. We recommend creating a team of young experts in the field of marketing. The team would use Instagram marketing tools at regular intervals, such as contests for followers, targeted hashtags and commercial photos to improve the promotion of Slovak tourist destinations. Slovakia is a culturally rich country comparable to Austria, which despite its wealth has not fully harnessed its tourist potential. One of the possible solutions to increase the number of tourists is to build a stronger nation brand.

This goal may be achieved by investing into advertising for our tourism and making information about travelling in our country more comprehensive and accessible, using official websites and social media. Better promotion encompasses improvements on our main Slovak tourist website regarding online searches and regular updates and the creation of a new modern design that would help capture the attention of its visitors.

Currently, we also consider it necessary to create a simple tourist app that will help the user to effectively plan their travel arrangements, and obtain any information needed. By defining how many days they plan to spend in Slovakia, what means of transport they choose, what kind of entertainment, recreational and cultural sites they prefer, the app will provide its users with tailored solutions from the given information.

Slovakia is attractive not only for the tremendous beauty of its picturesque natural landscape, but also for its wealth of historical culture. It is not necessary to create new attractions or build amusement parks. Slovakia just needs to use and boost its potential by seeking inspiration from our neighbouring country – Austria – on its journey to enhance its Nation Brand.

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ESPACE PUBLIC À TRAVERS L'HISTOIRE DE LA VILLE ALGERIENNE, CAS DE CONSTANTINE ET DE SA NOUVELLE VILLE ALI MENDJELI

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Key-words: Constantine, public space, old city, contemporary, colonial.

Public space through the history of the Algerian city, the case of Constantine and its new town Ali Mendjeli. As the gate of Africa, Algeria has been the crucible where several conquering peoples successively settled. The latter marked the Algerian territory by leaving human settlements constituting a patrimonial richness that contemporary Algeria must safeguard. Constantine is one of the oldest cities of Algeria; it has gone through history by experiencing profound changes in its components, especially its public space. Indeed, each civilization has produced its own public space obeying its policy, its culture, its customs, its way of life, its manner of spatial occupation etc. The superposition or juxtaposition of urban fabrics of different historical periods has given birth to a variety of public spaces. From the old city, to the contemporary one passing through the colonial town, public space was produced according to a particular pattern breaking up with the one that precedes it. What are the characteristics of public space produced by each civilization that Algerian cities have known especially those that have a traditional fabric? As a result, this work aims to determine the morphological and pictorial characteristics of the public spaces of the different historical periods of the city of Constantine. This is why urban analysis is used to know the location, shape, quality of the public space and the role it has played and still plays in the city. The way in which Constantine lost the value of its public space is a question we must understand. This work tries to pinpoint the failings of the making of the current city in order to solve the crisis that these urban elements are going through. The ancient heritage constitutes the basis from which this analysis will find solutions to improve the state of recent public spaces and propose a better design for the future ones. This study aims to reconcile the inhabitants with their city.

1. INTRODUCTION

Devenue complexe, la ville s'impose comme une entité réelle et comme objet d'étude. Elle est au centre des préoccupations de l'homme depuis l'antiquité. En effet, qu'elle soit traditionnelle, médiévale, coloniale, ou contemporaine, elle a, toujours, suscité l'intérêt des politiciens, des gestionnaires, des citoyens... et en particulier des chercheurs. Les approches concernant la ville et son étude sont multiples et variées. Elles dépendent de la spécialité et le profil du chercheur qui l'étudie. Au-delà des définitions traditionnelles, K. Lynch en 1960 introduisit une nouvelle approche où la ville est considérée comme « *une construction dans l'espace, mais sur une vaste échelle et il faut de longues périodes de temps pour la percevoir* » (Lynch, 1976: 1). Dans sa conception de la ville, l'auteur met en relation trois éléments principaux pour saisir (percevoir) la ville: l'acte de bâtir (l'architecture), l'espace, le temps (l'histoire), privilégiant l'aspect visuel du paysage urbain fondé sur l'analyse pittoresque (Panerai *et al.*, 1980: 109–125). Ainsi, l'étude de la ville se fait en relation avec l'architecture qui constitue le fondement de celle-ci comme le précise Aldo Rossi dans son livre « *L'architecture de la ville* ». Il considère que « *la ville, dans son ensemble, apparaît comme un*

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organisme vivant, qui se nourrit et se compose de l'architecture. Ce qui revient à dire que, sans une réflexion sur le binôme inséparable architecture-ville, il n'y a pas d'espoir pour les disciplines qui s'occupent de l'architecture et de la ville » (2001: 7).

L'étude de son évolution historique a démontré qu'elle est le résultat des strates historiques successives devenant difficile à étudier, à gérer, à planifier..., car elle est en perpétuel mouvement et changement. En effet, la ville a évolué à travers l'histoire subissant des processus de transformation induits par l'évolution de l'homme et de ses besoins. Cependant, même si la ville a gagné en complexité, les éléments qui la structurent sont toujours les mêmes: habitation, équipements, espaces publics, sauf que leur sens, leur logique, leur planification, leur forme etc. ont, aussi, évolué et sont devenus complexes. Un de ces composants qui a occupé une place prépondérante dans le domaine urbanistique est l'espace public. Il a pris différentes formes selon les époques avant de connaître un changement brusque avec l'avènement de la voiture.

Cette inflexion a généré de nouvelles problématiques et de nouveaux concepts nécessitant de nouvelles approches et solutions. « *Quels que soient les solutions adoptées et les efforts tentés pour rétablir une poly fonctionnalité des espaces publics, il n'en demeure pas moins que la notion même d'espace public – en admettant qu'elle ait encore un sens – demande, avec la notion corrélative de pratique sociale collective, à être repensée dans le contexte historique actuel des sociétés occidentales et appelle, de la part des urbanistes, une grande circonspection* » (Paquot, 2016 : 7). Intéressant différents domaines scientifiques, notamment la philosophie politique et l'urbanisme, la notion d'espace public est à prendre avec beaucoup de précaution. Ses utilisations dans la recherche fondamentale et dans le domaine pratique des professionnels prêtent à équivoques. En urbanisme, « *d'usage assez récent [...], la notion d'espace public n'y fait cependant pas toujours l'objet d'une définition rigoureuse. On peut considérer l'espace public comme la partie du domaine public non bâti, affectée à des usages publics. L'espace public est donc formé par une propriété et par une affectation* » (Pierre et Noisette, 1988: 320–322).

L'étude urbanistique des espaces publics révèle que les sens, les logiques, les caractéristiques, qui leurs sont attribués, dépendent fondamentalement des exigences et des besoins de l'époque de leur création. En d'autres termes, la fabrique des espaces publics est inhérente à la civilisation qui les produit. En effet, ils retracent à grands traits l'histoire récente de l'urbanisme (en gros du baron Haussmann à Jane Jacobs, en passant par Camillo Sitte et Ebenezer Howard ou Raymond Unwin) afin de repérer la chose sans le mot (Paquot, 2016: 7). Leur évolution historique constitue le fil conducteur selon lequel l'histoire de la ville peut être appréhendée. Les espaces publics représentent la vitrine de la ville à laquelle ils appartiennent. Avec les caractéristiques propres de chaque période historique, ils attribuent à la ville une identité singulière car ils sont le miroir de la société et de ce qu'elle porte en elle comme culture, actions politiques urbaines etc., gestion voire gouvernance du pays. En effet, chargé d'informations propres à chaque période historique, l'espace public peut être considéré comme un élément identificateur d'une ville et de son histoire. La lecture du processus d'évolution de l'espace public permet de comprendre l'histoire de la ville où il se trouve surtout les pays dont l'histoire est millénaire comme Constantine.

2. MÉTHODOLOGIE

En perpétuel mouvement, la ville se meut au grès des politiques, de l'image et du rôle que lui attribuent les décideurs, des conditions de vie, des mentalités, des besoins de l'époque considérée... en effet, à travers l'histoire, les éléments du tissu urbain, notamment l'espace public, connaissent des transformations complexes que l'analyse urbaine permet de comprendre. Plusieurs auteurs ont plaidé pour la reconnaissance et l'utilisation de cette méthode d'analyse, notamment Henri Lefebvre¹. En

¹ Henri Lefebvre, né le 16 juin 1901 à Hagetmau et mort le 29 juin 1991 à Navarrenx, est un philosophe français. Il s'est consacré à la sociologie, la géographie et au matérialisme historique en général.

effet, « *reconnaissons que Henri Lefebvre, dans son droit à la Ville de 1967, avait, pour saisir la ville de manière objective, décidé d'en étudier la forme physique pour la lire comme le texte qui lui permettrait d'atteindre le contexte...* » (Panerai *et al.*, 1980:7). La ville est fréquemment étudiée soit à une échelle globale, celle de l'aménagement du territoire, soit à l'échelle détaillée, celle qui traite le bâtiment, l'habitation..., sans tenir compte de la relation qui existe entre les éléments urbains et leur organisation formant un ensemble cohérent. C'est pourquoi, une nouvelle approche était née: "*une science de la ville" était fondée, la place et les implications de l'analyse urbaine étaient clairement fixées puisque la ville, donnée... architecturale" s'articulait à l'"urbain" à la façon d'un langage"*(Ibid.).

Largement développée par Panerai *et al.* (1980:194) dans leurs travaux, notamment les éléments d'analyse urbaine, cette méthode d'investigation permet de saisir la réalité complexe des transformations de la ville. « *Au plan méthodologique, il semble même indiqué d'aborder le phénomène urbain par les propriétés formelles de l'espace* » (Idem: 11). Cette méthode suggère « *des moyens pour l'analyse des villes dans leurs dimensions physiques, il s'agit de restituer à la forme urbaine son autonomie. En d'autres termes, il s'agit de rompre avec les explications mécanistes, qu'elles soient fonctionnelles ou économiques, afin de restituer l'architecture, et la crise qu'elle traverse, dans une problématique plus globale, celle des villes, des pratiques qu'elles supportent, des potentialités qu'elles possèdent* » (Ibid). Ainsi, l'espace urbain est étudié dialectiquement:

- « *Comme un tout qu'il s'agit d'observer, de découper, d'ordonner, et de recomposer;*
- « *Comme un ensemble d'éléments qu'il s'agit de reconnaître, de rassembler, d'articuler* » (Idem: 12).

Cette analyse comporte, en fait, deux niveaux de lecture: la première est morphologique et la deuxième est pittoresque tout en ayant recours à l'histoire du lieu considéré. C'est pourquoi, ce travail peut être divisé en trois parties: la première concerne l'analyse urbaine des espaces publics urbains de la vieille ville produits avant 1830. Cette étude tente de déterminer les caractéristiques morphologiques et picturales des espaces publics de la ville traditionnelle. La deuxième partie s'intéresse à l'espace public de la période coloniale mettant en exergue la rupture imposée dans la fabrique de la ville par la colonisation et ses objectifs. Cette rupture concerne le sens, la conception, la qualité et le rôle que lui a assigné l'administration coloniale dans la ville. Quant à la dernière partie, elle traite l'analyse urbaine des espaces publics après l'indépendance. Elle met en éclairage la deuxième rupture qu'a subie l'espace public. Cette étude a permis de mettre en exergue la perte et la désintégration de l'espace public dans la fabrique de la ville post coloniale. Ce travail a été effectué en utilisant les cartes, les photos, les fonds archivistiques et surtout l'observation in situ à travers les promenades effectuées par les auteurs.

3. HISTOIRE DE L'ESPACE PUBLIC À CONSTANTINE

Situé sur la rive sud de la Méditerranée, l'Algérie a été une terre de prédilection pour les peuples conquérants. Ces derniers ont édifié des établissements humains dont certains se sont transformés en villes, cas de Constantine. Les numides, les romains, les arabes, les ottomans puis les français, se sont succédés pour occuper le même site qui est le rocher. Constantine est dépositaire de l'héritage laissé par ces civilisations. Cependant, il ne subsiste des deux premières que quelques traces disséminées sur son territoire. Aujourd'hui, il ne reste que la vieille ville et l'héritage colonial français comme résultat de cette stratification historique. De Cirta à Constantine, la ville a subi des changements profonds touchant sa forme, son architecture, ses composantes urbaines, notamment son espace public. A l'image de son tissu urbain, l'espace public a traversé l'histoire en subissant des transformations profondes. Chaque période historique a produit son propre espace public attribuant à Constantine une identité singulière.

La superposition ou la juxtaposition des tissus urbains d'époques différentes ont donné naissance à une variété d'espace public propre. L'espace public a été produit selon une logique particulière

rompant avec celle qui la précède notamment après l'indépendance. Après 1962, l'espace public a connu une inflexion quant à son sens, sa conception, sa forme, son image, son utilisation etc., traduisant un mode de vie, une organisation sociale particulière. Relégué au second plan, la fabrique de l'espace public de la ville algérienne actuelle ignore l'histoire de la ville. En rompant avec tout ce qui le précède, il a perdu son rôle fondamental qu'il joue dans le tissu urbain. C'est pourquoi, il est intéressant de connaître les caractéristiques de l'espace public propre à chaque période historique de la ville algérienne, notamment Constantine, qui a un noyau traditionnel et comment elle est devenue orpheline de son espace public.

3.1. Situation et présentation de Constantine

Millénaire, la ville de Constantine est l'une des plus vieilles villes en Algérie. Elle est la troisième ville d'Algérie après Alger (la capitale du pays), puis Oran (la capitale de l'ouest du pays). Métropole de l'Est algérien, Constantine occupe une position géographique centrale dans la région. Point de jonction entre les grands axes Nord-Sud (Skikda-Biskra) et Ouest-Est (Sétif-Annaba), la ville se trouve dans une zone charnière entre le Tell et les Hautes plaines. En effet, située à 431 km de la capitale Alger, Constantine est perchée sur un plateau rocheux à 600 m (534 m à 634 m) au-dessus du niveau de la mer. Surplombant un ravin, elle est coupée des terres fertiles qui l'entourent par des gorges profondes où coule l'oued Rhummel (Fig. 1). Véritable barrière naturelle, le ravin a été franchi en quatre points matérialisés par quatre ponts qui relient le noyau originel de la ville à ses extensions ultérieures. Cependant, ce relief particulier et unique a doté Constantine d'un site défensif qui a constitué un atout important de son occupation à travers l'histoire (Chabi, 2016: 81).

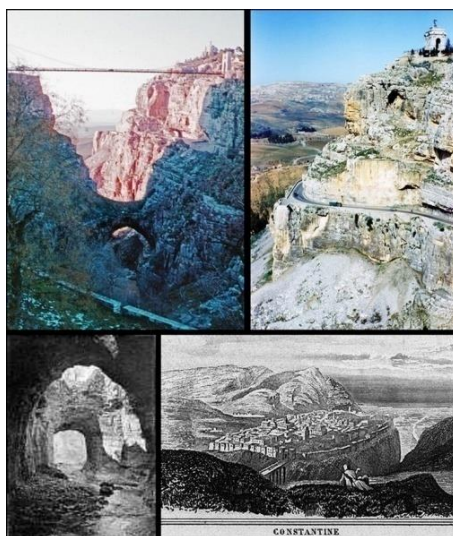


Fig. 1 – Vues sur le site naturel de Constantine.

(Source: <http://www.constantine-hier-aujourd'hui.fr/images/photos-anciennes/P4206126.JPG>, <http://lesvoyagesetmoi.over-blog.com/2015/05/constantine-une-grande-ville-sur-son-rocher.html>; 2015).

3.2. Aperçu historique de Constantine

Occupée depuis des siècles, Constantine possède une histoire liée à son site naturel particulier. Avec ses obstacles surtout le ravin qui l'entoure, le site a constitué un atout majeur jusqu'à aujourd'hui, justifiant son occupation. D'ailleurs, le rocher a toujours attiré les peuples conquérants. C'est pourquoi, elle a été la capitale la plus constante du Maghreb central. Ce site a été le creuset de

plusieurs civilisations. Parmi celles qui ont marqué l'histoire, il y a celle des phéniciens. Ces derniers ont fondé une ville importante portant le nom de Cirta (Khirta) qui veut dire ville creusée à pic. Puis elle est devenue la capitale de la Numidie: le royaume Massyle. Cirta a été détruite en 311 par Maxence et Domitius Alexander. Elle a été reconstruite peu après par l'empereur Constantin 1^{er} à qui elle doit le nom qu'elle porte depuis 17 siècles. Elle a été intégrée à la fin du 1^{er} siècle à l'empire romain. A partir de l'an 654, la ville de Constantine a été prise par les arabes. Puis, Keireddine Barberousse va s'emparer de Constantine en 1521 pour l'annexer à l'empire ottoman.

Durant la régence ottomane, qui a duré trois siècles, Constantine a été la capitale du Beylek de l'Est ou Beylek de Constantine jusqu'à l'occupation française en 1837. Toutes ces différentes civilisations ont occupé le même site c'est à dire le rocher délimité par le ravin et les gorges du Rhummel. Chacune d'elles a superposé son substrat urbain sur celui qui l'a précédé.

La superposition des strates historiques n'a pas permis la sauvegarde des cités phénicienne, numide, romaine ... à part quelques témoins qui se trouvent situés hors du rocher tels que: le tombeau de Massinissa (roi des numides) (Fig. 2), l'aqueduc romain, le pont romain etc. Aujourd'hui, le rocher abrite la vieille ville de Constantine héritée de l'époque ottomane avec l'intervention urbanistique de la colonisation française réalisée telle une opération chirurgicale sur le tissu traditionnel ottoman.



Fig. 2 – Tombeau de Massinissa et l'aqueduc romain. (Source: auteurs, 2020).

4. PRESENTATION DE LA VILLE OTTOMANE

« L'emplacement de Cirta, ..., offre les plus grands avantages: il est à l'abri des attaques des hordes nomades et propre à soutenir un siège régulier; les environs sont bien arrosés et la végétation en est riche et variée » (Mercier, 1903: 1). Comme toutes les cités qui l'ont précédée, la ville ottomane est restée confinée dans le rocher pour sa situation privilégiée, la présence d'eau, pour ses terres fertiles qui entourent le rocher et pour des raisons de sécurité. Durant la période ottomane, Constantine est une véritable forteresse. Elle n'est accessible que par quatre points. Situés au sud, ces points d'accès sont matérialisés par des portes dont trois étaient principales: *Bab El Jabia*, *Bab El Djedid*, *Bab El Oued* (Fig. 3). Ces dernières donnaient sur une brèche une sorte de langue de terre permettant de sortir et d'entrer à la ville sans passer par les gorges profondes du Rhummel. Quant à la quatrième porte *Bab el Kantara*, elle était localisée au sud-est de la ville, elle s'ouvrait sur un pont.

Son tissu urbain était compact et dense. Il est caractérisé par la petite échelle des pleins et des vides et la relation de proximité des composants bâtis (Fig. 4). Les éléments de son bâti ne sont pas autonomes, ils entretiennent une relation de dépendance reflétant l'organisation sociale de ses

habitants. Son tissu comportait quatre parties: la Casbah au nord, Tabia el Kebira et Tabia el Barrania, le quartier d'El Kantara au sud-est et celui de Bab El Jabia au sud. Les espaces non bâtis correspondent aux cours intérieures des maisons et les espaces publics. Ces derniers prennent la forme de ruelles, d'impasses, de placettes et de souk. Dans la ville ottomane, les placettes prennent le nom de Rahba (place publique de petite taille) ou Batha.

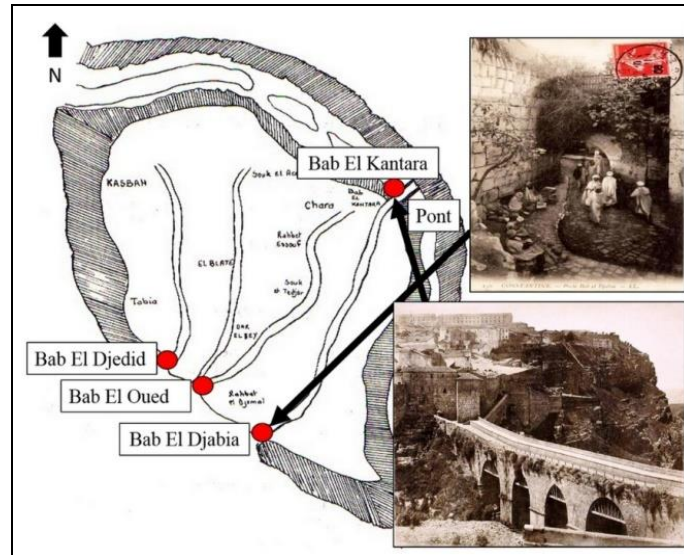


Fig. 3 – Position des quatre portes dont trois sont situées au sud et la quatrième au sud-est de la ville ottomane.
 (Source: Mahfoud Kaddache, « *L'Algérie durant la période ottomane* » P 150, édité par l'OPU – Alger, 1991;
<https://www.facebook.com/wassimezohireTOURISME/photos/a.1057681594294537.1073741963.208807215848650/1057689540960409/?type=3&theater>; traitement auteurs, 2019).

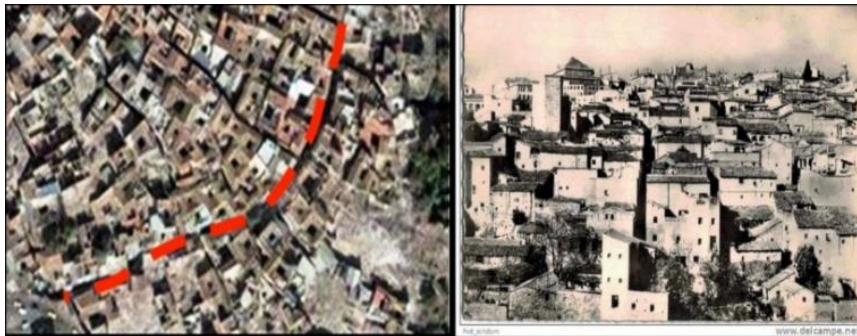


Fig. 4 – Photo aérienne et vue sur la ville ottomane.
 (Source: <http://www.vitaminedz.org/constantine-wissem-meziame-professeur-d-architecture/Photos/205370.php>).

4.1. Caractéristiques de l'espace public de la ville ottomane

La ville, léguée par les ottomans, se caractérise par la prédominance de l'espace privé représenté par les maisons. L'espace public relevant du domaine public ou du Beylek se limite à l'ensemble des ruelles étroites, des impasses qui mènent vers les maisons et les placettes. Sans plan d'ensemble préétabli, leur tracé dépend de la topographie, du climat de la région et de l'organisation sociale. Cette dernière se cristallise à travers les principes adoptés dans la hiérarchisation du public au privé. Les ruelles sont tortueuses et ponctuées par des passages couverts appelés sabbat (Fig. 5).



Fig. 5 – Vue sur une ruelle étroite dont le tracé dépend de la topographie.
(Source: Cartes postales, http://www.constantine-hier-aujourd'hui.fr/LesImages/cartespostales/vieille_ville.htm).

4.1.1. Ruelle Mellah Sliman

Les placettes n'ont pas de forme claire. Elles sont le résultat de l'élargissement des ruelles. Les placettes se situent au niveau des axes principaux qui sont des ruelles commerçantes. Leur emplacement n'est pas fortuit, elles étalonnent le parcours de la ruelle: cas de la ruelle Mellah Slimane (ex. rue Perrégaux) (Fig. 6).

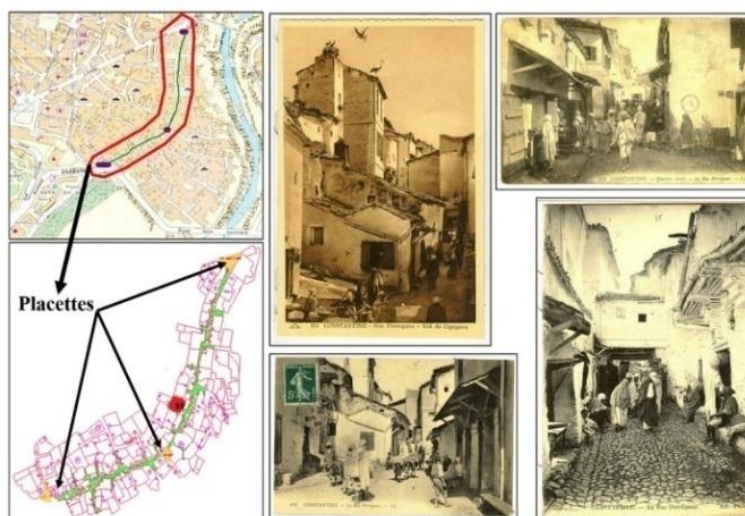


Fig. 6 – Vues sur la ruelle Mellah Sliman (ex. Perregaux)².
(Source: Cartes postales, http://www.constantine-hier-aujourd'hui.fr/LesImages/cartespostales/vieille_ville.htm;
<http://www.constantine-hier-aujourd'hui.fr/LaVille/souika/images/planvieilleville.jpg>, 1994; Traitement auteurs, 2019).

4.1.2. Placette Sidi Djeliss

Elle constitue une des plus importantes placettes de la ville ottomane. Elle constitue un point de jonction et de convergence de plusieurs axes importants de la ville ottomane (Figs. 7, 8 et 9).

² Axe commerçant, son parcours est étalonné par trois placettes: deux aux extrémités et la dernière (Zalaika) se trouve au point d'inflexion du tracé.

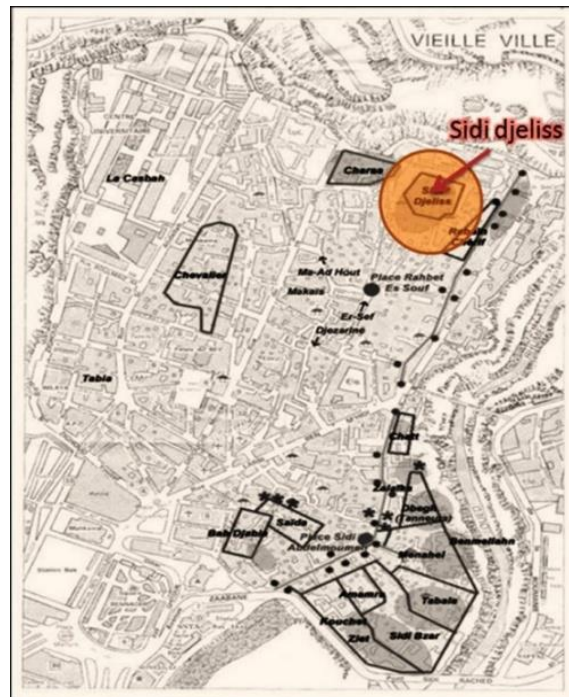


Fig. 7 – Situation de la placette Sidi Djeliss.

(Source: Travail réalisé dans le cadre de l'atelier magistère post graduation préservation du patrimoine, CHALABI Amina et BAKIRI Rym, 2010).

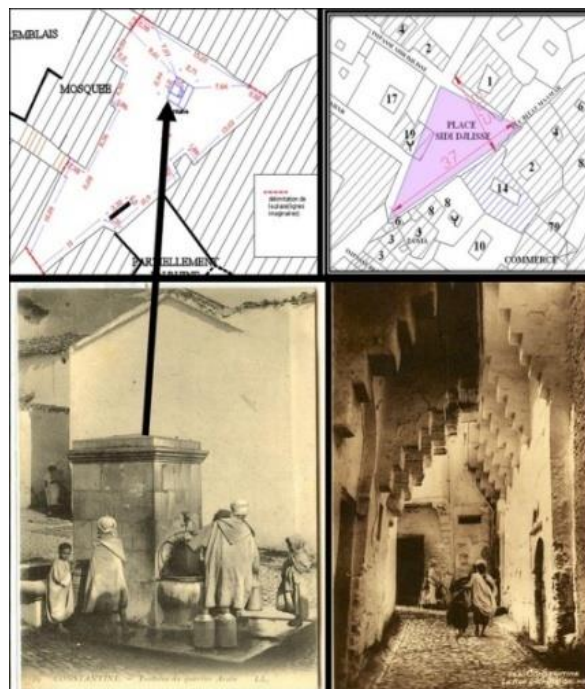


Fig. 8 – Relevé de la place Sidi Djeliss.

(Source: Travail réalisé dans le cadre de l'atelier magistère post graduation préservation du patrimoine, CHALABI Amina et BAKIRI Rym, 2010).



Fig. 9 – Vue sur la fontaine de la place Sidi Djeliss³.

(Source: Travail réalisé dans le cadre de le l'atelier magistère post graduation préservation du patrimoine, CHALABI Amina et BAKIRI Rym, 2010).

Ces exemples d'espaces publics peuvent être généralisés à tous les espaces vides du tissu urbain ancien de Constantine. Ces caractéristiques de l'espace urbain qui est la vitrine d'une ville, attribuée à la ville arabe un cachet particulier. Cette formation urbaine est le produit d'une communauté qui a organisé son territoire selon sa culture, son mode de vie ..., il est le reflet de son identité berbéro-arabe. La communauté constantinoise de cette période est une société traditionnelle dont la majorité est de confession musulmane. L'élément de structuration de base de la société est la famille élargie « *el aïla* » qui regroupait plusieurs familles conjugales, et qui était basée sur l'attachement à l'origine patrilignagère, la division des rôles entre les deux sexes, la ségrégation de l'espace, l'indivision du patrimoine et l'entraide familiale », (Benali, 2005: 27). Patriarcale dans ses fondements, l'ensemble de plusieurs familles portant le même nom, constitue une tribu. Le groupe familial ou tribal est prédominant au dépend de l'individu. Ce dernier n'existe qu'à travers le groupe auquel il appartient. Ces liens familiaux voire tribaux mettent en exergue l'importance de la cohésion entre les membres de la communauté.

C'est pourquoi, l'espace urbain de la ville ottomane est divisé en deux sphères: publique et privée. Le public relève du groupe et représente le monde masculin par excellence, alors que le privé, qui est limité à la maison, correspond au domaine de l'intime, du sacré, où la femme est souveraine. Considérée comme étant « El Horma »⁴, son espace se limite à l'intérieur de la maison. Organisée autour d'un patio, la maison ne possède pas d'ouverture donnant sur l'espace public. Le contact avec l'extérieur est limité faisant de la maison un espace introverti. Le passage du public au privé se fait à travers un système de filtre caractérisant l'espace public. Il existe une hiérarchisation des espaces du public au privé (rue – ruelle – impasse). Ces représentations sociales et religieuses ont été à l'origine de la culture berbéro-arabe où l'espace public possède une identité propre, un rôle précis mettant en exergue l'organisation et la cohésion sociale qui était très forte. Ce type de fabrique urbaine, qui est conçu comme un seul bloc sur le rocher, a pu résister durant sept ans face au siège entrepris par les français.

5. ESPACES PUBLICS DE L'ÉPOQUE COLONIALE À CONSTANTINE (DE 1837 À 1962)

Après sept ans de siège, la forteresse est tombée entre les mains des français. La colonisation à Constantine a commencé à partir de 1837.

Face à l'insurrection et le manque de sécurité, la colonisation française n'a pas pu édifier une ville européenne en dehors des remparts. C'est pourquoi, des actes administratifs français ont été

³ Construite en pierre, la fontaine constitue le seul point d'eau existant au niveau de la ville Ottomane. Actuellement, elle est à l'abandon.

⁴ Mot difficile à traduire. Son sens n'a pas un équivalent en français. Le respect de la pudeur. L'honneur. Ce qui appartient à l'autre fait partie aussi de son intimité, il est interdit d'y toucher ou de le regarder.

promulgués en 1844 concernant son occupation. Ces dispositions réglementaires sont destinées juste pour Constantine. La mesure la plus importante pour Constantine a été l'ordonnance du 9 juin 1844 avec l'article premier qui stipule que: « *la ville de Constantine sera divisée en deux quartiers, un quartier indigène et un quartier européen, dont les limites sont déterminées par le plan...* » (Mercier, 1903: 502). Ces deux quartiers sont soumis à des régimes différents. Le quartier européen sera géré suivant la législation qui régit les autres points de l'Algérie soumis à l'action civile.

Quant au quartier indigène, l'autorité civile française administrative et judiciaire conservera tous les pouvoirs qui lui sont attribués par la législation spéciale de l'Algérie. Elle va s'appuyer sur les fonctionnaires administratifs indigènes, les amins, les chefs de corporations qu'elle nomme pour administrer ce quartier. L'application de cette ordonnance a entraîné la démolition de la moitié de la vieille ville située dans sa partie haute: la Casbah et la Tabia, à l'exception du palais du bey Hadj Ahmed, qui servira de résidence au général de division, et la mosquée Hassan Bey, reconvertie en cathédrale. Des maisons, des résidences, des administrations, des mosquées, des zaouïas ont été rasées. Les terrains ainsi libérés ont été utilisés pour la construction de la ville européenne.

5.1. Caractéristiques de l'espace public de la période coloniale

La France du 19^{ème} siècle est marquée par une instabilité politique et la révolution industrielle. Elle connaît des mutations profondes avec l'émergence du capitalisme financier (la bourse), le développement de l'industrie, des moyens de communication, les chemins de fer etc. Pour faire face à ces changements, une nouvelle conception de la ville prend forme notamment avec l'apparition de nouvelles fonctions urbaines telles que la banque, l'usine etc. L'espace urbain se transforme en devenant plus aéré, assaini avec l'introduction des égouts, le réseau de distribution de l'eau etc., répondant aux nouvelles pratiques de la bourgeoisie d'affaires aux réussites souvent exceptionnelles. « *Nous verrons ainsi chaque année de grandes artères s'ouvrir, des quartiers s'assainir, les loyers tendant à s'abaisser par la multiplicité des constructions, la classe ouvrière s'enrichir par le travail, la misère diminuer et Paris répondre ainsi de plus en plus à sa haute destination* » (Bourillon, 2005: 230). Ainsi, le vieux Paris avec ses ruelles et impasses se transforme en une ville moderne, avec la mise en valeur de la rue sous forme de boulevards, avenues, étalonnée par des monuments, des jardins publics et les parcs verts. Les travaux de Hausman ont complètement transformé Paris avec les parcelles, les îlots, les immeubles de rapport, les percées, les perspectives et les façades urbaines etc., qu'il a réalisés.

Reproduisant l'urbanisme de leur pays, le quartier européen s'organise à partir des trois percées qui représentent les axes principaux qui vont articuler le tissu urbain colonial. Ces voies sont liées entre elles par des rues transversales. Appliquant les principes de structuration de Paris effectués par Hausman, les axes convergent vers des points qui prennent la forme de places, placettes, square. L'emplacement, la forme, l'aménagement des places ne sont pas fortuits, ils sont étudiés. Ils sont conçus selon la même logique que celle adoptée par Haussmann lors des travaux qu'il a effectués à Paris (Fig. 10). Chaque bâtiment important est doté d'une place ou placette devant l'entrée principale. Cependant, il existe des placettes constituant des points de convergence de plusieurs voies. Ainsi, le tissu colonial est aéré, les voies sont plus larges et les bâtiments importants sont placés en retrait par rapport à la voie. Ce retrait constitue une esplanade, une placette ou un jardin. La végétation est utilisée comme élément de composition urbaine et comme composant esthétique faisant partie du mobilier urbain de la ville coloniale. Ainsi, le mobilier urbain est utilisé dans les voies sous forme de kiosque à musique, de statue, la végétation.... Les colons ont utilisé les principes d'urbanisme, l'architecture, les styles et le système de réglementation qui sont appliqués dans leur pays natal.

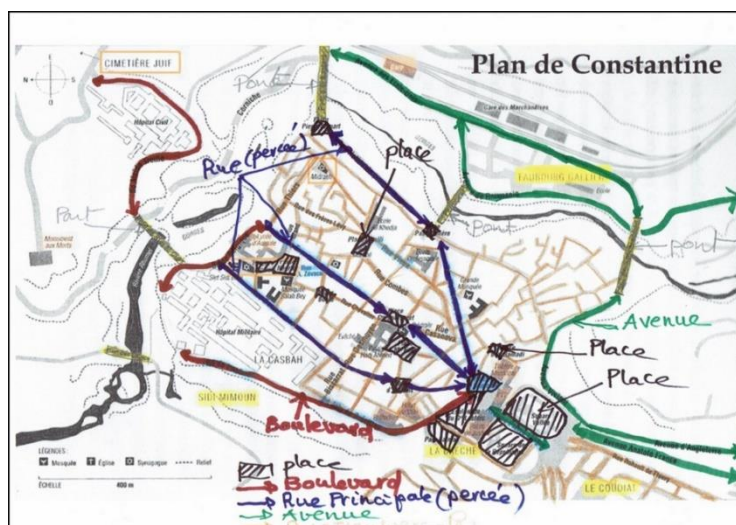


Fig. 10 – Intervention française sur le tissu urbain hérité de la période ottomane.
(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1955; Traitement auteurs, 2019).

5.1.1. Les voies (boulevards, avenues et rues)

Le Boulevard constitue un type de voie utilisé par Haussmann dans son intervention urbanistique sur Paris. Le boulevard est édifié à l'initiative du pouvoir central. En général, leur construction se fait sur l'emplacement des murs de rempart. En fait, quand les murs de fortification sont détruits ils sont substitués par une voie de communication de type boulevard. Cette voie est large, elle est destinée à la flânerie et au divertissement. Elle renvoie à l'identité urbaine et sociale de Paris. Pour construire la ville coloniale, les français ont puisé dans leur culture originelle pour fabriquer leur cadre de vie. Quand les murs de rempart de Constantine ont été détruits, le premier boulevard a pris naissance (Fig. 11).

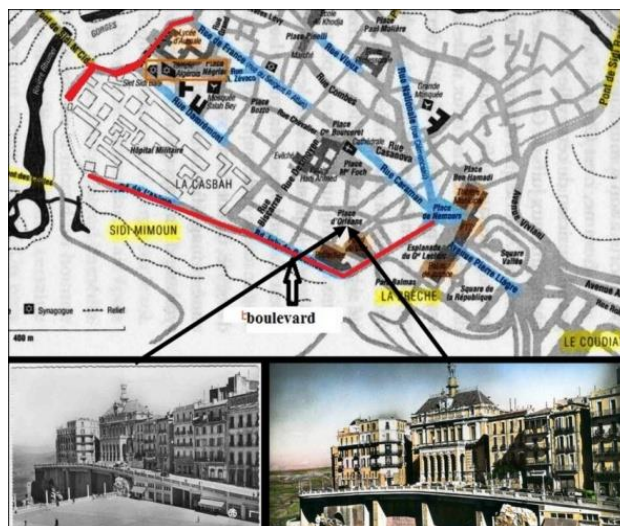


Fig. 11 – Vue sur le boulevard de l'ouest.
(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1955; cartes postales, http://www.constantine-hieraujourd'hui.fr/LesImages/cartespostales/rue_caraman.htm; traitement auteurs, 2019).

L'Avenue constitue un autre modèle de voirie pris de l'urbanisme français de cette époque, exemple de l'avenue des Champs Élysées à Paris. L'avenue est une grande artère urbaine plantée d'arbres. Cette notion a fait son apparition avec la colonisation française. Une des avenues les plus prestigieuses de l'époque française est l'avenue Pierre Liagre se trouvant au niveau de la brèche. Elle relie la ville ancienne au nouveau centre colonial. Ses deux extrémités s'élargissent pour devenir des places: la place Nemours et la place Lamoricière (Fig. 12).

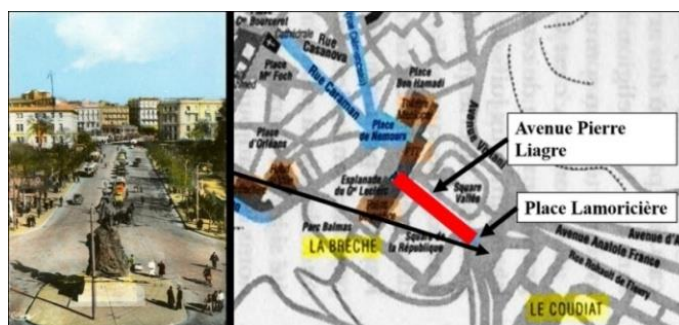


Fig. 12 – Plan et vue sur la place et l'avenue Lamoricière.

(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1955; Traitement auteurs, 2019).

Intervenant sur une formation urbaine déjà existante, les percées sont réalisées pour créer des voies de communication plus larges et modernes (rues). De ce fait, des opérations d'expropriation et de démolition d'une grande partie de la ville ottomane sont effectuées pour mener des travaux de modernisation du tissu ancien. Il s'agit dans une certaine mesure de « *l'art de recoudre après avoir taillé* » (Fusco *et al.*, 2018). Ces percées sont bordées de bâtiments hauts de RDC+3 et plus. Les rez de chaussée des bâtiments sont occupés par des magasins avec de grandes vitrines (Fig. 13). Ces dernières attribuent à ces percées un caractère commercial jusqu'à présent.

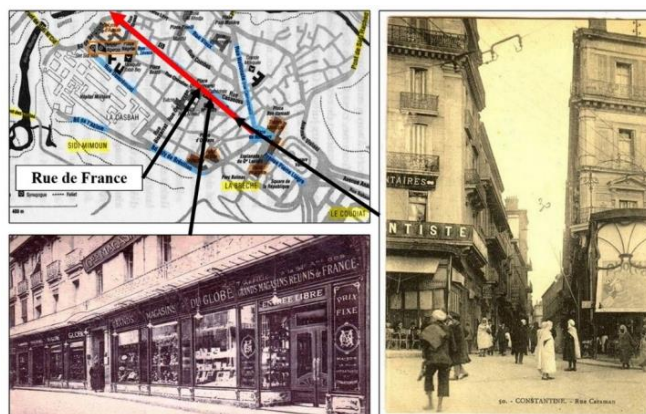


Fig. 13 – Vue sur l'entrée et la façade de la rue de France.

(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1955; Traitement auteurs, 2019).

5.1.2. Les places

La plus importante des places coloniales est la Brèche. Elle est située sur une langue de terre possédant une position stratégique. Elle constitue le point d'accès à la vieille ville, et une zone de jonction entre le centre ancien et le centre européen nouvellement créé (Fig. 14).

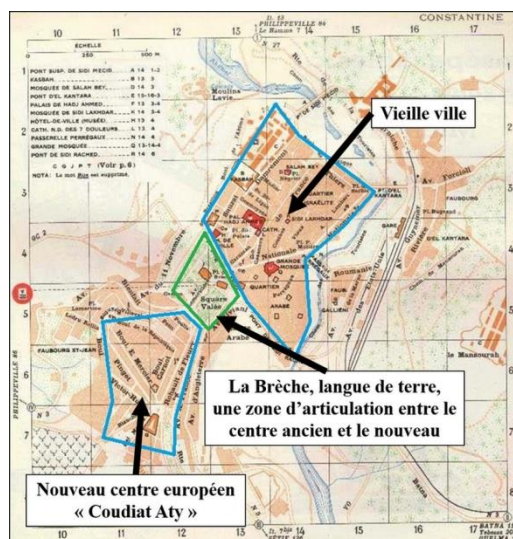


Fig. 14 – Position de la brèche.

(Source: <http://claudette.latella.free.fr/Photos/Photos%20panache%20constantine.jpg>, 1984; Traitement auteurs, 2019).

Point névralgique de la ville, cette zone est devenue la vitrine de la ville coloniale. Elle constitue le point de jonction et de concentration des infrastructures importantes: la poste, le crédit foncier, le théâtre, le palais de justice etc. (Fig. 15). Elle présente une composition urbanistique, architecturale, stylistique spécifique qui annonce la rupture avec l'ancienne ville et la création d'un nouveau centre urbain colonial européen.

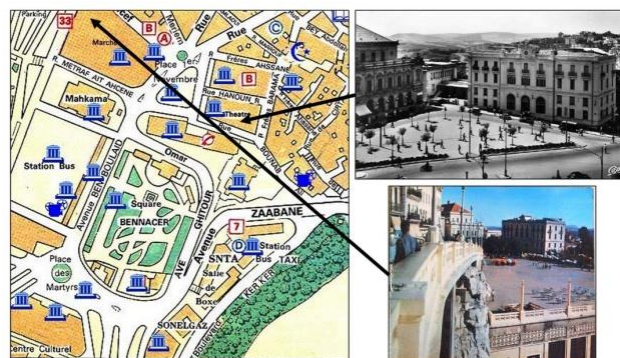


Fig. 15 – Vue sur l'esplanade, le marché, la poste et le théâtre de la brèche.

(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1955; Traitement auteurs, 2019).

5.1.3. Espaces publics des extensions urbaines coloniales

Fortement influencé par la France notamment dans le domaine urbanistique et architecturale, l'Algérie coloniale va connaître un changement fondamental dans la production de la ville. Ainsi, les extensions urbaines de la ville de Constantine vont être conçues selon un mode urbanistique et architectural nouveau. Avec l'avènement du mouvement moderne en France, les colons ont introduit et appliqué les principes du mouvement moderne dans la fabrique de la ville à partir de 1920. La production des extensions de la ville coloniale tentera d'appliquer les principes du mouvement moderne. Quant à la question des espaces publics, le mouvement moderne a récusé l'idée d'espace public représentatif au bénéfice de celle d'espace collectif d'usage. En effet, « *il a rejeté la pratique – classique – d'un art urbain issu de la renaissance mettant en scène la ville, ses rues, et ses palais à*

travers des percées et de perspectives » (Scherrer et Rey, 1997: 123–125). L'espace libre laissé entre les constructions devait être collectivisé tout en répondant aux seules fonctions hygiénistes (retrouver les rapports à la nature), récréative (pratiquer le sport et les jeux) et de liaison, et à tous les usages liés à la fonction résidentielle. Dans ce cas, le rôle de l'espace libre est restreint à celui de jardin de sport et d'agrément, il n'a aucun statut symbolique. Ainsi, les artères telles que : les boulevards, les avenues, et les places, ou les quais ont été sacrifiés pour laisser place à la seule fonction circulatoire. Adoptant ces principes du mouvement moderne, la France a généralisé ce type d'urbanisme à travers son territoire et celui de ses colonies, notamment à Constantine. Après 1920, l'application des principes de l'urbanisme du mouvement moderne à Constantine a donné naissance à un tissu urbain qui rompt avec le centre colonial édifié à Coudiat. Les premiers grands ensembles avec l'habitat pavillonnaire ont fait leur apparition au niveau des extensions urbaines de Constantine (Fig. 16). Les places prestigieuses avec les voies telles que le boulevard, l'avenue, la rue ont disparu pour laisser place à l'espace collectif laissé entre les bâtiments qui sont hauts.

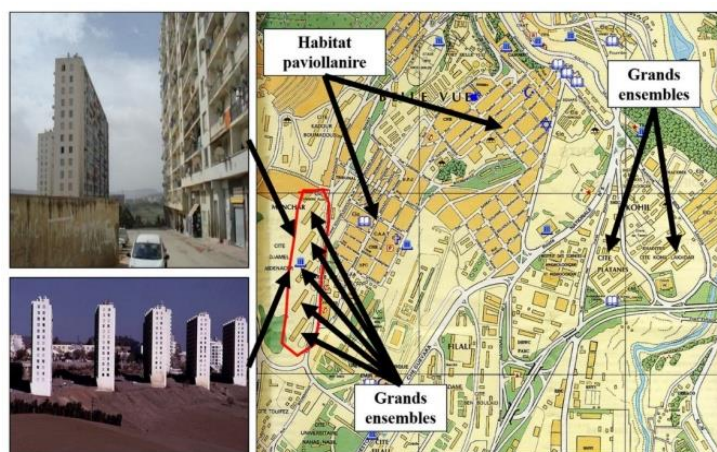


Fig. 16 – Vue sur les bâtiments du Ciloc.

(Source: <https://www.judaicalgeria.com/pages/constantine.html>, 1960; Traitement auteurs, 2019).

Les grands ensembles de la période coloniale ont introduit un nouveau type d'espace public. L'ancien espace public, avec ses boulevards, ses avenues, ses squares, ses rues, a été réduit voire effacé laissant place à un espace public utilitaire. Cette rupture va conditionner et donner une nouvelle orientation urbanistique et architecturale à la ville de la période après coloniale.

6. ESPACES PUBLICS APRÈS L'INDÉPENDANCE À CONSTANTINE (DE 1962 À NOS JOURS)

Après l'Indépendance, l'Algérie a hérité d'une situation difficile. Elle a été obligée de parer au plus urgent. Pour sortir du sous-développement et affronter les problèmes nouveaux, graves et urgents causés par l'urbanisation rapide, les pouvoirs publics se sont armés d'un arsenal juridique et d'un modèle d'urbanisation préétabli, en fait, emprunté aux pays qualifiés de modernes: les grands ensembles. En fait, la modernisation du pays a constitué la pierre angulaire de la politique algérienne. Voulant rompre avec son passé, l'Algérie a opté pour la modernité, en choisissant le mouvement moderne et ses principes comme modèle pour la fabrication de la ville post coloniale. Ainsi, de vastes programmes d'habitat ont vu le jour au niveau des périphéries constituant les extensions urbaines nouvelles. Ainsi, les grands ensembles ont été implantés à travers tout le territoire algérien indépendamment des spécificités régionales, climatiques, culturelles..., notamment à Constantine.

Le gouvernement affiche une volonté de moderniser la ville pour changer les modes de pensée et de vie de la population algérienne. Cette dernière est déchirée entre les traditions héritées des ancêtres et la modernité imposée par l'état. « *L'Algérie aujourd'hui vit dans une réalité sociale composite, une sorte d'amalgame d'éléments modernes et d'éléments traditionnels ayant survécu. Même si la tradition perd de sa pertinence, elle n'est jamais réduite à rien, les individus ne s'en détachent pas totalement. Les anciennes et les nouvelles valeurs se mêlent inextricablement, pour former un mode de vie où elles se côtoient et se vivent en même temps...D'ailleurs, beaucoup de chercheurs (S. Khoudja 1996, Z. Daoud 1993, H. Addi 1999 etc.) voient dans cette situation la cause de la crise identitaire que traverse l'Algérie ces dernières années traduite particulièrement par la montée de l'intégrisme religieux dans les années 90* » (Benali, 2005: 29). Le passage d'une société traditionnelle à une société moderne s'est effectué à travers l'émancipation de la femme, l'industrialisation du pays, le développement du salariat, le développement de la scolarisation et de l'échange des idéologies à travers le déplacement et les multimédias et surtout l'urbanisation avec l'introduction d'un nouveau mode d'habiter. En effet, en optant pour des modèles de plans européens fondés sur l'approche du mouvement moderne, l'Etat a contribué à déstructurer la famille élargie et la tribu qui ont été remplacées par la famille nucléaire. De nouvelles pratiques sont nées notamment au niveau de l'espace public post colonial. Malgré l'émancipation des femmes, l'espace public reste un espace masculin jusqu'à présent. Par ailleurs, l'autoritarisme de l'Etat à vouloir tout contrôler, notamment les rassemblements des individus dans les espaces publics pour parer aux révoltes, a affecté considérablement la conception, la prise en charge et les pratiques qui se déroulent dans les espaces publics post coloniaux.

6.1. Caractéristiques des espaces publics du tissu urbain de Constantine post coloniale

Comme la priorité est donnée au logement, la notion d'espace public est reléguée au second plan. Les espaces publics, qui sont des éléments de composition du plan de masse deviennent des espaces résiduels. La crise de logement est tellement aigue que les grands ensembles en Algérie sont vidés de leur sens, notamment les espaces publics. Les ZHUN (Zones d'Habitat Urbain Nouvelles) réalisées possèdent une structure lâche matérialisée par la présence des espaces vides laissés par les chemins des grues. Après l'implantation des logements, les équipements sont construits dans ces espaces vides, et le reste est affecté aux espaces publics sous forme d'aire de jeux, d'aire de stationnement. C'est pourquoi, les espaces publics des ZHUN ne répondent à aucune logique. Ils sont mal positionnés mal traités, non pris en charge ni par les autorités, ni par les habitants. Ils n'ont pas de caractéristiques spécifiques leur attribuant une identité particulière comme la brèche. Les espaces publics de Constantine post coloniale sont anonymes. Espaces vides laissés par les chemins de grues, ils n'ont pas de forme claire. Leur conception ne constitue pas la priorité des autorités et des concepteurs.

6.1.1. ZHUN

Dans la genèse des ZHUN à Constantine, Boussouf est la dernière à avoir été créée (Fig. 17). Elle représente l'une des plus grandes ZHUN. Elle renferme l'habitat individuel et l'habitat collectif type grand ensemble (Fig. 18). Elle porte en elle les germes de la ville nouvelle. Elle se présente sous forme de maille délimitée par une voie principale qui la contourne. La composition de son plan de masse se caractérise par le phénomène de discontinuité causé par son site accidenté. Elle constitue l'aboutissement et l'application des savoirs acquis lors de la conception, des études et mise en œuvre des ZHUN précédentes.

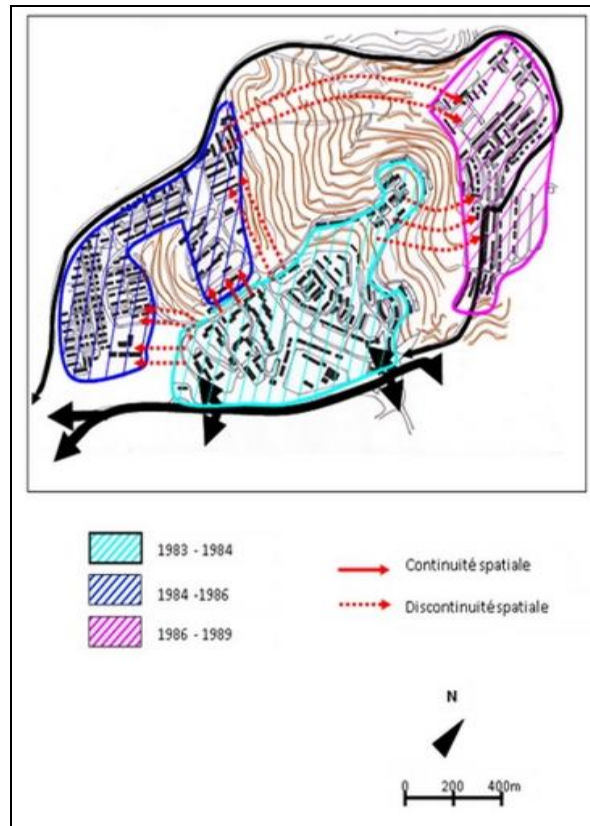


Fig. 17 – Plan d’ensemble de la ZHUN de Boussouf.
 (Source: Nadia CHABI, « *L’homme, l’environnement, l’urbanisme* »,
 Thèse de doctorat, Université Mentouri Constantine, 2007, P 443).



Fig. 18 – Vue sur la ZHUN de Boussouf.
 (Source: Nadia CHABI, « *L’homme, l’environnement, l’urbanisme* »,
 Thèse de doctorat, Université Mentouri Constantine, 2007, P 445, P 456).

L’espace extérieur au groupement comporte une pente qui rend son utilisation impossible. Il n’est pas traité. Quant à l’espace intérieur, il prend la forme d’une voie tertiaire qui se termine en cul de sac. Il est goudronné sans traitement particulier. On note l’absence de la végétation (Fig. 19).

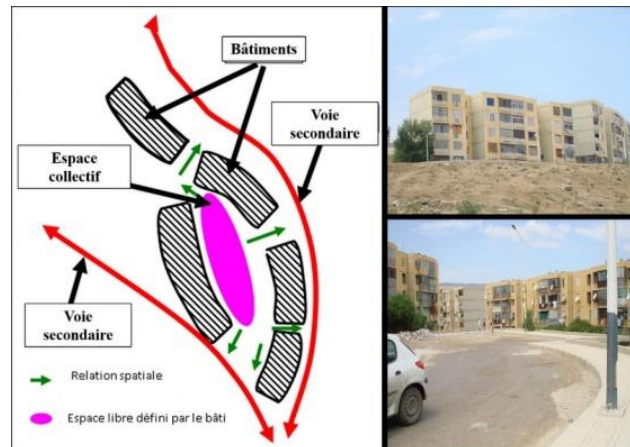


Fig. 19 – Plan d'un groupement de la ZHUN avec des vues de l'extérieur et de l'intérieur d'un groupement curviligne.

(Source: Nadia CHABI, « *L'homme, l'environnement, l'urbanisme* », Thèse de doctorat, Université Mentouri Constantine, 2007, PP 450–451).

Les espaces publics de la ZHUN de Boussouf ne sont pas différents de ceux des autres ZHUN réalisées avant elle. Les problèmes recensés au niveau des espaces publics des grands ensembles algériens sont pratiquement les mêmes. Ils n'ont pas connu d'amélioration dans le processus de conception, de réalisation et d'entretien. Est-ce que la dernière création urbanistique (la ville nouvelle Ali Mendjeli) connaîtra une amélioration des espaces publics ?

6.1.2. Ville nouvelle: dernière création urbanistique à Constantine

La ville nouvelle Ali Mendjeli est la dernière création urbanistique réalisée à Constantine. De création *ex nihilo*, elle a été conçue selon un plan préétabli détaillé. Du plan de masse général au logement passant par les espaces publics: les voies, les espaces collectifs etc., le projet de la ville nouvelle a été étudié minutieusement phase par phase. Cependant, la réalisation des éléments urbains est en décalage par rapport à l'étude sachant que les premiers éléments urbains édifiés sont les deux canaux de communication qui structurent la ville nouvelle et la relient à la ville mère: Constantine. Ces deux chenaux constituent les voies principales qui prennent la forme d'un boulevard. Le plus important des deux boulevards traverse la ville longitudinalement de part en part. Son profil a été étudié et conçu à l'avance dans un bureau d'étude. Il possède une largeur importante. Il est constitué de quatre voies à sens unique séparées au milieu par une esplanade comme aire de récréation (Fig. 20).

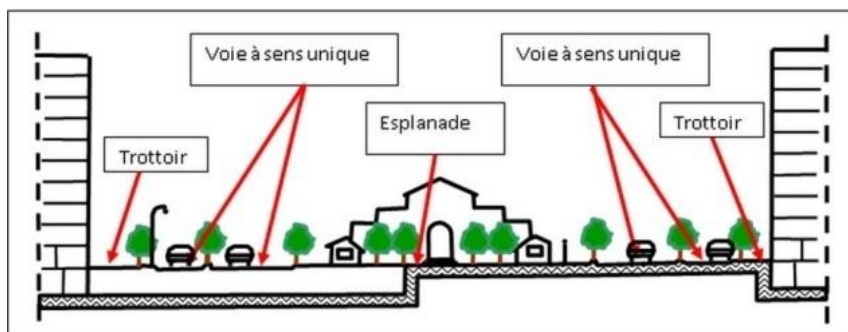


Fig. 20 – Profil de la voie principale.

(Source: Nadia CHABI, « *L'homme, l'environnement, l'urbanisme* », Thèse de doctorat, Université Mentouri Constantine, 2007, P 596.

Le passage du conceptuel (l'idée) au réel (le terrain) est marqué par des modifications parfois radicales. La voie principale se compose de deux chaussées séparées tantôt par un terre-plein, tantôt par une langue de terre non travaillée. Elle est bordée par des trottoirs de dimension appréciable permettant de protéger une partie avec les arcades et de laisser l'autre partie à ciel ouvert (Fig. 21). Comme cette voie possède une longueur très importante, elle est entrecoupée par des axes transversaux de type primaire, elle est étalonnée par des intersections dont les plus importantes sont aménagées en carrefour.



Fig. 21 – Vue en 2007 sur la voie principale d'un axe structurant de la nouvelle ville Ali Mendjeli.
(Source: Nadia CHABI, « *L'homme, l'environnement, l'urbanisme* »,
Thèse de doctorat, Université Mentouri Constantine, 2007, P 597).

En 2018, la même voie principale a connu des modifications importantes (Fig. 22) avec le projet de l'extension de la première ligne du tramway de Constantine. Cette extension recouvre une partie très importante de la nouvelle ville Ali Mendjeli.



Fig. 22 – Vue en 2018 sur la même voie principale de la nouvelle ville Ali Mendjeli.
(Source: auteurs, 2018).

Comme les ZHUN, le plan d'ensemble de la ville nouvelle est composé à partir d'une grande maille qui se subdivise à son tour en mailles secondaires constituant les unités de voisinage avec les extensions ouest et sud de la nouvelle ville en cours de construction. Ces divisions sont assurées par la voirie qui est fortement hiérarchisée, répondant ainsi aux principes du mouvement moderne (Fig. 23).

Les espaces publics d'une maille secondaire représentant une unité de voisinage se composent de la voirie qui est fortement hiérarchisée: voie primaire, voie secondaire et voie tertiaire, aussi quedes espaces collectifs laissés libres entre les bâtiments. La forme et la situation des espaces collectifs sont conditionnées par le tracé des voies et l'agencement des unités bâties entre elles. Ils peuvent jouxter une voie ou bien ils peuvent être entourés de bâtiments qui les protègent et leur attribuent un caractère privatif (Fig. 24).

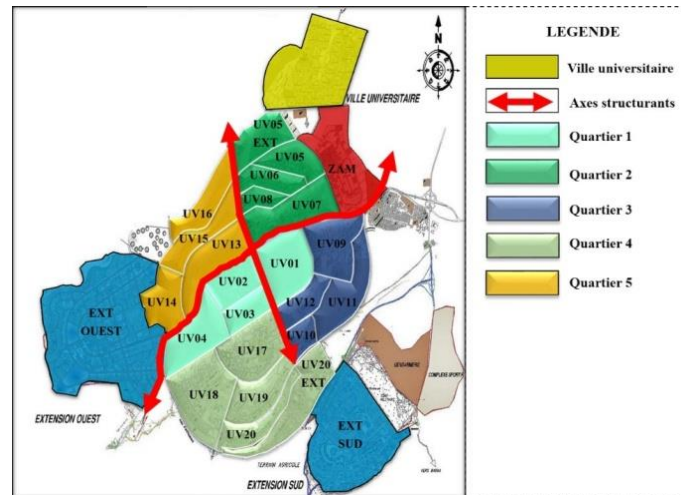


Fig. 23 – Plan général de la ville nouvelle Ali Mendjeli.
(Source: EAUVANAM, « La ville Ali Mendjeli », 2017, P 8; traitement auteurs, 2019).

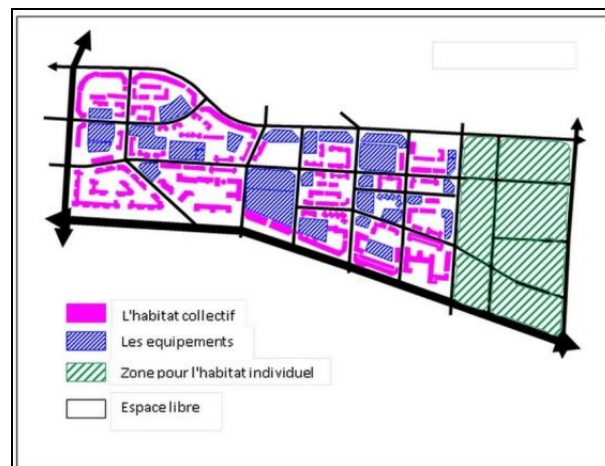


Fig. 24 – Plan d'ensemble d'une maille secondaire (Unité de Voisinage 7).
(Source: Nadia CHABI, « L'homme, l'environnement, l'urbanisme »,
Thèse de doctorat, Université Mentouri Constantine, 2007, P 642).

Si les voies sont goudronnées, la majorité des espaces collectifs ne sont pas traités. Les voies tertiaires représentent le maillon final menant au logement. Leur terminaison s'élargit pour donner naissance à un cul de sac. Ce dernier joue le rôle de parking. L'absence des aires de jeux traités pour cet usage fait que les deux fonctions de parking et d'aire de jeu se superposent soulevant le problème de la sécurité des usagers, notamment les enfants. Les espaces libres non traités posent le problème de leur utilisation en hiver (la boue) et en été (l'insolation) à cause de l'absence de protection – notamment la végétation ou les passages couverts (Fig. 25).

Si la ville nouvelle a connu une amélioration de la voirie à travers sa hiérarchisation et de leur bitumage, néanmoins leurs dimensions sont trop importantes et ne comportent pas de mobilier urbain, surtout une protection contre le soleil et les écoulements des eaux de pluie à cause de l'absence ou les défauts de conformité du système de drainage. Les espaces collectifs n'ont pas connu une amélioration par rapport à ceux des ZHUN. L'espace public est toujours relégué au second plan sachant que la priorité est donnée à la construction d'un nombre important de logements en un temps record.



Fig. 25 – Vue sur les espaces publics de la maille secondaire (UV 7).
 (Source: Nadia CHABI, « L'homme, l'environnement, l'urbanisme »,
 Thèse de doctorat, Université Mentouri Constantine, 2007, P 655, P 664).

7. CONCLUSIONS GÉNÉRALES

L'analyse urbaine des espaces publics de Constantine produits à travers son histoire est intéressante à plus d'un titre. En effet, la fabrique des espaces publics n'est pas innocente. Bien au contraire, leur conception, leur forme, leur dimension, leur traitement, leur rôle dans la ville véhiculent des non-dits sociaux, religieux, culturels, politiques etc., constituant, ainsi, les fondements de la communauté qui les a produits. Leur sens dépend des représentations mentales, sociales, de ceux qui les fabriquent. C'est pourquoi, les espaces publics attribuent une identité propre à la ville, notamment, dans le cas de la ville ottomane et coloniale. Chacune des sociétés de ces deux périodes a produit des espaces publics structurés qui répondent à des impératifs précis pour organiser sa ville selon ses besoins, son mode de vie. Quand l'espace public est vidé de son sens pour contrôler les comportements des individus, alors leur rôle se limite à la fonction de passage perdant celle d'échange, de convivialité; c'est le cas des espaces publics de la ville post coloniale de l'Algérie.

En effet, l'espace public de la ville ottomane est fortement hiérarchisé filtrant les flux des usagers, notamment celui des étrangers, pour sauvegarder l'intimité, El Horma, et assurer la sécurité de l'espace privé. Ils répondent aux contraintes imposées par le climat, le patriarcat, la ségrégation entre les sexes, la cohésion sociale etc. Éléments fondamentaux de la médina, les espaces publics traditionnels sont étroits, sans traitement particulier. Ils sont dépourvus d'espace vert à l'exception de la présence d'une fontaine dans certaines placettes. Leur tracé est tortueux pour limiter le champ visuel des usagers, ils comportent des sabbats sorte de ruelles couvertes pour atténuer les effets du climat. Quant à l'espace public colonial, il est le résultat du changement opéré au niveau de la politique de la France, soutenu par les mutations scientifiques, technologiques, intellectuelles que la révolution industrielle a entraîné. L'évolution de la société coloniale s'est reflétée au niveau de l'organisation de la ville, de l'amélioration de la qualité de son environnement sur le plan urbanistique, architecturale et hygiénique. L'espace public colonial s'est démarqué voire opposé à l'espace public de la médina de par sa conception, son traitement, ses espaces verts, les fonctions des immeubles qui le bordent, le sens et le rôle que lui ont attribué les colons.

Après l'indépendance, l'espace public de Constantine s'est vidé progressivement de ses éléments, de son contenu, voire de son sens. L'espace public post colonial est constitué à partir des espaces résiduels ou ceux laissés par les chemins de grue. Ne répondant à aucune logique

architecturale ou urbanistique, les espaces publics de Constantine post coloniale sont sans forme et sans traitement. Si les espaces publics de Constantine ont commencé à perdre leurs propriétés singulières vers la fin de la période coloniale, les extensions urbaines post coloniales ont fini par déstructurer et détruire l'espace public avec le sens profond qu'il véhicule: rassemblement, démocratie, convivialité, mixité etc. Les espaces publics de la ville post coloniale sont des avatars qui ne jouent pas le véritable rôle d'espace public. Ils sont négligés sciemment par les autorités publiques et les habitants.

En optant pour le modernisme, les autorités ont dénaturé l'essence de la vie urbaine qui s'organise autour des espaces publics. Ces derniers sont délaissés, négligés, poussant les habitants de Constantine à revenir se ressourcer dans les anciens espaces publics de la ville ottomane et coloniale. Ainsi Constantine est devenue orpheline des espaces publics à cause de la politique suivie par les autorités qui accorde la priorité à la construction des logements à moindre coût pour parer à la crise de logement et éradiquer l'habitat spontané. Il est temps que Constantine se réconcilie avec ses espaces publics. Il est question, aujourd'hui, de trouver la meilleure démarche ou stratégie pour reconquérir les espaces publics de la ville de Constantine et de sa nouvelle ville Ali Mendjeli, sachant qu'aujourd'hui, l'espace public colonial est le lieu privilégié des manifestants du Hirak (mouvement de contestation de la population qui dure depuis un an). Les manifestants occupent et investissent les rues, les places de la période coloniale où les citoyens engagent un bras de fer contre les autorités. C'est pourquoi, il est intéressant de tenter de comprendre pourquoi l'espace public colonial est toujours fréquenté par les citoyens algériens constituant le lieu privilégié des rassemblements, des contestations, des échanges, de convivialité, malgré qu'il n'a pas été produit par ces derniers.

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AN INVASIVE SPECIES IN THE FAUNA OF GALAȚI COUNTY – THE JACKAL (*CANIS AUREUS* L., 1758)

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Key-words: jackal (golden jackal), population evolution, territorial dynamics, Galați County, Romania.

Abstract. The jackal is included in the Canidae Gray, 1821 family, falling under the order Carnivora Bowdich 1821. It is an invasive species whose range has spread from the Balkan Peninsula to the North, in Romania. In the South-eastern part of Moldavia (Galați County) it arrived from the Southeast, as the first individuals came from Dobrogea. The area populated by the species continuously extended towards the North and then towards the Northwest. If 6 decades ago, when it was first spotted, the distribution area of the jackal was very small in the Southeast of the county, in 2005 it had already exceeded half of its territory, and today it is reported throughout most of the county. It is a harmful mammal, affecting both wild and domestic species.

1. GENERAL INFORMATION

The jackal is an invasive species (Arnold *et al.*, 2011), whose area has extended from the Balkan Peninsula to the North, in Romania. It belongs to the order Carnivora Bowdich, 1821, to the family Canidae Gray, 1821 (Murariu, 1984), along with the wolf, the red fox and the racoon-dog. In size, it is bigger than a fox and smaller than a wolf (Fig. 1). The body is slightly longer than that of a wolf, the snout is as sharp as that of a fox, the ears are sharp, and the fur is rough to the touch. It is a slender mammal with great agility and mobility (it has slender legs). The length of its body can reach 1 m, and the males weigh up to 13.6 kg (Murariu, Munteanu, 2005).



Fig. 1 – Jackal in Vânători commune.

It thrives in vegetation rich in bushes and reeds, especially in floodplains, which provide abundant food and thickets difficult to penetrate (it can also be found in riverside forests). It is a predatory mammal which has, as part of its diet, the following: various rodents (especially mice), birds (wild and domestic alike), hare kits, carcasses. It also attacks deer and wild boar. Its food is highly varied, both of animal and vegetal origin (Fox, 1975). A decisive factor in stabilizing the species is the

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abundance of food. The jackal is active in the evening and at night. When searching for food, the jackal is very bold.

As a north tropical-anatolian-balkan zoological element (Bunescu, 1961), this particular mammal entered Romania by migrating from the Balkan Peninsula, and was first reported in Dolj County by Prof. R. Călinescu (1930).

By migrating from the South, from Bulgaria, the jackal was afterwards spotted in Dobrogea, in the Nisipari area, in Constanța County and in the Jijila area, in Tulcea County (Bunescu, 1961). Between 1970–1989, it became a permanent species in the entire region. In the South it was even hunted between 1972 and 1974. The stable existence and the reproduction of the jackal in Dobrogea, in the 7th and 8th decades of the past century was “*a real and undisputed fact*” (Almășan, 1995, p. 18). The settling of this mammal in Dobrogea was also the result of the disappearance of the wolf, which is its main predator. Thus, the jackal occupied the latter’s ecological niche.

In 1995, the jackal could be found in Romania on a permanent basis only in Dobrogea and the Danube Valley.

2. THE ARRIVAL AND EXPANSION OF THE SPECIES IN GALAȚI COUNTY

Initially, the jackal appeared as an “accidental immigrant” in the fauna of South-eastern Moldova. Bunescu, in 1961, mentions for the first time the existence of the species in the county fauna, in the area of “La forturi”, on the territory of Tuluțești commune, after which it was not seen any further. In 1984 a jackal was shot near Galați Town.

Subsequently, the jackal reappears in 1990/1991 in the Prut valley. We rely on the fact that Almășan (1995) mentioned that on February 24th, 1991, 2 jackals were shot in the Dobrina-Huși area (Vaslui County), as the mammal was migrating from South to North, along the Prut valley, crossing thus the latter’s sector in Galați County.

The “origin” of the jackals was Dobrogea, a neighbouring territory of the county, as well as the only one where the species existed at that time (on the Prut-Nistru interfluve, Munteanu and Lozanu – 2004 – do not mention it). Initially, the jackals crossed from Dobrogea to Moldavia, over the frozen Danube.

The first official records of jackal packs date from 2000. We believe that, between 1991–1999, the species existed in the county, all the while being “ignored”, but the number of individuals was not significant. Following the increase of the species population in Dobrogea (data provided by Angelescu in 2002 indicated 561 individuals), through migration, part of it expanded its area in favourable habitats northwest of the Danube, primarily in the Prut valley, but also in the valley of the Siret River.

18 specimens were reported in 2000, all in the area of the Prut-Danube confluence. Since 2001, the jackal has also entered the Siret valley (in the Șendreni area), and in February 2004 the species had already been observed on the territory of Nămolosa commune, near the Neagra forest. Later, from the Prut floodplain, the jackals also entered the Chineja valley, and from the Siret valley they migrate along the Bârlad river. The first jackals were shot in the Covurlui Hills on the territories of Bălășești (in the autumn of 2003 on Hraina hill) and Drăgușeni (February 2005 in the Jerdia area) communes.

The increase of over 5.5 times of the population leads to the species fully occupying, in 2005, the Prut, Danube, Siret and Chineja valleys, as well as the valley of the Bârlad river, up to the Tecuci-Negrilești area. Thus, starting 2005, this mammal was recorded in all the relief units of the county. After 2009, the species became quite constant in the Ghidigeni area, while since 2011 it is observed annually in the middle of the Covurlui Hills (at Adam), and since the beginning of 2019 it also appears in the forest areas east of Barcea commune.

3. POPULATION DYNAMICS

According to official statistics (Table 1), starting from the 18 specimens reported in 2000, the population reached 280 in the year 2019 (an increase of over 15 times!). Field observations indicated that the number of jackals was higher.

Table 1

The number of jackals detected in the county for the period 2000–2019 (individuals)

| Years | 2000 | 2001 | 2005 | 2006 | 2007 | 2008 | 2010 | 2012 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indiv. | 18 | 22 | 122 | 142 | 54 | 42 | 16 | 45 | 46 | 68 | 229 | 142 | 182 | 280 |

The shift in numbers is due to the variations of feeding opportunities. If these opportunities decrease, the species migrates to other areas with more diverse food sources (it even enters forests), especially since the breeding rate is quite high. There are places (for example the Siret valley between Branișteea and Piscu communes) where there are packs of up to 13–15 individuals.

The area of the species expanded from 62,000 ha in 2001 (13.9% of the county area), to 243,000 ha in 2005 (54.4% of the county area), covering today almost the entire county (without being a stable population anywhere).

In Galați County, the expansion of this mammal is also a consequence of the disappearance of wolves from ecosystems. However, where the wolf made its presence known, the jackal disappeared, which is a situation recently reported in the Băneasa area.

In some places (Gefu, Suceveni, Oancea, Viile areas) jackals caused damage to some sheepfolds by hunting lambs, kids or younger sheep. A case was registered in 2014, in the county, where 56 domestic goats were killed in one night. In March 2020, an adult roe deer was eaten by jackals in the Căzânești forest area, not far from Târgu Bujor Town. The jackals also ate hare kits (for example in the Covurlui Plain), or roebuck fawns (in the Covurlui Hills). In the Siret valley, they also attacked wild boar sows and their piglets, which the jackals surround and circle until they catch their young. In the spring of 2020, they reached the very edge of some villages (for example Piscu). In the South of the Covurlui Plain, at the beginning of the summer of 2020, there were cases of jackals that attacked adult does.

At the same time, jackals ate the carcasses of wild boars that had died of swine fever.

4. SPECIES CONTROL

Between 2001 and 2019, 639 specimens were gathered after being shot (Table 2), of which the majority were those from valley and floodplain areas (Table 3).

Table 2

The results of jackal shootings in the county between 2001 and 2019 (individuals)

| Years | 2001 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indiv. | 2 | 3 | 6 | 24 | 40 | 22 | 11 | 36 | 18 | 16 | 71 | 25 | 79 | 272 |

Table 3

The number of jackals hunted in certain years, divided by physical-geographical units (individuals)

| Units / Years | 2001 | 2005 | 2006 | 2013 | 2019 |
|------------------------|------|------|------|------|------|
| Dunăre-Prut floodplain | – | 4 | 15 | 11 | 63 |
| Siret floodplain | 2 | 14 | 10 | 11 | 30 |
| Covurlui Plain | – | 1 | 3 | 2 | 20 |
| Covurlui Hills | – | 2 | 6 | 10 | 67 |
| Tecuci Plain | – | – | 2 | 1 | 61 |
| Tutova Hills | – | 3 | 4 | 1 | 31 |
| Total | 2 | 24 | 40 | 36 | 272 |

For the year 2016, the highest number of jackals shot was registered east of Foltești (12) and within Cavadinești communes (8).

5. CONCLUSIONS

In the South-eastern Moldavian wild fauna, the jackal was first spotted six decades ago.

If initially it was rarely and sporadically found, today it has become quite common. An invasive species, it has gradually expanded its geographical area in the past decades, from the Southeast of the county to the North and then the Northwest. The expansion was favoured by the prolificacy of the species, as well as by the abundant food to be found in river valleys, especially in the case of the massive breeding in the Prut valley, which acts as a state border area between Romania and the Republic of Moldova, thus rarely disturbed by humans, and where hunters cannot act. If in the years 2005–2006 the jackals were more solitary, at present, in some floodplain sectors, the size of the packs has reached 13–15 individuals. If two decades ago there were a few dozen individuals, today they number in the hundreds.

The jackal is a harmful mammal, which causes losses for wild and domestic species alike. Thus, between 2001 and 2019, 639 specimens were gathered after being shot.

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THE LOCATION OF THE CITY'S CLASSIFIED ESTABLISHMENTS AND THEIR DANGER TO THE URBAN ENVIRONMENT. A CASE STUDY OF M'SILA CITY/ALGERIA

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Key-words: environment, pollution, classified facility, risk studies, impact studies, M'sila.

Abstract. In this paper, we address the issue of classified facilities and the problems they cause, as well as their impact on the urban environment at the urban level in Algeria. These facilities have caused many problems in terms of pollution of all kinds, at the level of the urban perimeter of the city, especially of the visual and auditory kind. Facilities of the first and second class are considered to be the most dangerous (factories, fuel pumping stations). However, harassment and annoyance are found at the level of urban agglomerations in which the facilities classified as category three and four (Technical blacksmithing, Carpentry) distributed in an irregular manner, which caused a distortion in the aesthetics of the city. Therefore, the study of the city of M'sila was addressed due to the accelerated spread of the third and fourth categories of classified facilities, and this amid its urban surroundings. These facilities emerged in such a chaotic manner that they are not subject to the laws of configuration and there is no clear study to determine how they exist in terms of number, distribution and spread within the city. In addition to that, the illegal transgressions of the exploiter (the artisan) by displaying his work on the pavement and obstructing the movement of pedestrians, and the dangers arising from the classified facilities by placing the work equipment near dwellings, although several new laws have been issued stipulating how to deal with this type of facilities, such as Law 03-10 of 19-07-2003 on environmental protection in the framework of sustainable development, and the last decree 06-198 of 31-05-2006, which regulates the regulation applied to institutions classified to protect the environment, Executive Decree 07-145 of 19-05-2007, which defines the scope of application, the content and the means to validate a study of the impact on the environment.

1. INTRODUCTION

Talking about the environment has become a fundamental current issue and has become an increasingly complex and intertwined problem, which created an urgent need for intervention and leading careful studies of the characteristics of the urban environment and diagnosing the problems it suffers from, and the search for the causes of pollution and the procedures to be followed to solve their problems, as well as the search for compatibility between the urban environment and the risks of classified facilities.

The issue of the environment and its protection has received considerable attention at the national and international levels, owing to its close association with human life, which made governments and peoples head towards holding conferences and specialized workshops to discuss problems related to the environment.

The industrial accidents have drawn the world's attention to the seriousness of the pollution that they cause, and have prompted many bodies and governments to pay attention to the need to establish an international program that includes setting up safe and sound systems related to the manufacture of chemicals, methods of transporting and storing them, and imposing permanent control over them in order to preserve the lives of their workers and the urban environment surrounding these industries (classified plants).

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There are several incidents negatively impacting the environment, causing material and human losses such as: The Chernobyl accident of 1986 (Chernobyl nuclear explosion) (Abdel, Mohamed 1998); At the national level, Skikda refinery accident happened in 2004 (the explosion of gas site in Skikda), and there was a fire in the plastic factory in Blida in 2018, which caused material losses (www.aljazeera.net. Young 2020).

In order to reduce these risks, countries all around the world, including Algeria, seek to preserve the urban environment from the dangers of classified facilities, by reducing their increasing spread (welding, carpentry, car wash and lubrication, aluminium carpentry, mechanical repairs...), through the various urban layers of the city, whether they were planned – i.e. emerging through building and reconstruction laws – or anarchic. This can be done by enacting laws that are consistent with protecting the urban environment in general, and by creating arrangements that reduce the risks arising from these facilities, as well as by educating communities to interact positively with environmental protection laws.

The question posed is: Do the classified facilities take into account pollution, disturbance, or noise when designing city-level, urban planning schemes?

Hypothesis: The overlap between residential communities and establishments classified within the built environment result in many environmental hazards stemming from poor urban management.

The aim of this research is to: Study the development of the law of classified facilities in Algeria and analyse it taking into account the enactment of these laws at city, urban environment and the owners of these facilities level; Estimate the impact of classified facilities on the urban environment and analysing their risks; Study the laws related to classified facilities in terms of location and size in order to propose a clear methodology for selecting a plan showing the percentage of their presence at the city and residential neighbourhoods level; Find out if there are urban plans that will determine how the classified facilities are distributed at the urban environment level.

2. THE URBAN ENVIRONMENT

The urban environment is the architectural characteristics of the city represented by residential communities and public, social, economic, administrative, cultural and industrial installations.

2.1. The concept of environment

Environment in language: In Arabic, it goes back to the roots (Boa), from which the past tense (B) was taken. Ibn Manzur said in his famous dictionary “Tongue of Arabs” (“Lisan al-Arab”): Baa to the thing referred to, meaning that the environment is the descent and solutions in place.

The environment idiomatically: It is the natural, geographic, spatial and biological environment in which the living organism lives, including human beings, as well as the socio-political, moral and intellectual climate surrounding man. In English dictionaries, the environment has two terms that overlap. First, *Environment*, which means the set of external conditions or indicators that have an impact on the life of human beings, and then *ecology*, where modern ecology is defined as the medium or spatial field in which a person lives, and what it contains, the natural and human phenomena that affect it (Abdelkader, 2006).

In the same broad framework, the environment can be defined as follows: “The environment is the natural, social and economic environment in which all living organisms, including humans, interact as systems, and all external conditions affecting the life of the organism, its survival and evolution (Lawrence Yahya, 2009).

The term Ecology is derived from Greek and consists of two parts: OIKOS, meaning middle or dwelling, that is: environment; and LOGOS, meaning presentation or talk or science, and thus the overall and general meaning become ecology (Fathi Dardar, 2003).

2.2. Studying the impact on the urban environment

The impact on the environment is studied at several different stages, and according to Executive Decree No. 07–145, it defines the scope of application, the content and methods for approving a study and a summary of the impact on the environment. The preparation of the environmental impact study file, or the content of a study, or the impact of the summary prepared on the basis of the size of the project and the expected impacts include (Executive Decree 07–145, 2007).

- The project owner submits his title (surname), the headquarters of his company, as well as his potential experience in the field of the project to be completed.
- The presentation of the studies office.
- Establishing the study area.
- Analysing potential alternatives for the various project options by explaining and establishing the adopted options at the economic, technological and environmental levels.
- An accurate description of the original condition of the site and its environment, including its natural resources and biological diversity, as well as the land, sea or water areas likely to be affected by the project.
- A precise description of the various phases of the project, especially the construction, exploitation and post-exploitation stages.
- Estimating the types and quantities of sediments, emissions and damages that may be generated during the various stages of project completion and exploitation (e.g. waste, heat, noise, radiation, vibrations, odors and smoke).
- Evaluating the expected direct and indirect effects of the project on the environment in the short, medium and long term (air, water, soil, biological environment and health).
- The cumulative effects that can be generated during the various phases of the project.
- Describing the measures to be taken by the project owner to eliminate or reduce the damages resulting from the completion of the various stages of the project.
- Compiling an environmental management plan, which is considered as a follow-up program for the mitigation or compensation measures implemented by the project owner.

We notice that there are several decrees and laws that provide for the protection of the urban environment, from pollution of all kinds, without prejudice to the aesthetic and urban nature of the city, because this study affects several characteristics of social aspect and an economic aspect, the most important of which is the study of the urban side and the environmental aspect in terms of the degree of impact of classified industrial facilities on the environment, especially the first and second class facilities, which have a great impact on the urban environment of the city.

3. CLASSIFIED FACILITIES

In this section, we will be addressing the concept of a classified facility and its types, as well as the procedures for the establishment of classified facilities in Algeria, the concept of danger, its types and its impact on the urban environment.

3.1. The concept of a classified facility

We can take the concept of a classified facility from several sources:

- Law 10–03 of 19–07–2003 is related to the protection of the environment in the context of sustainable development in Article 18 thereof, which stipulates the following: factories, workshops, quarries and mines are subject to the provisions of this law, and in general the facilities that are operated or owned by every natural or moral person, public or private, which

may cause risks to public health, hygiene, security, agriculture, environmental systems, natural resources, sites, monuments and tourist areas, or may cause harm to the comfort of the neighbourhood (Law 03–10, 2003).

- Executive Decree No. 198–06 of 05–31–2006, governing the regulation applied to the classified facilities for environmental protection in Article 2 thereof, which defined the concept of the classified facility: every fixed technical unit in which an activity is carried out or activities are prepared from the activities mentioned in the list of classified facilities, specified in the applicable regulation (Fadhel, 2013).

Based on the above, a classified enterprise can be defined as any industrial or commercial enterprise that causes risks or inconveniences with regard to public security, health and hygiene or the environment, which requires special control in order to prevent its risks or inconveniences, the most important of which is the risk of explosion, fire, smoke, odors and water spoilage. Therefore, classified enterprises are constant sources of pollution and a threat to both the environment and humans.

We conclude that each industrial or commercial facility causes risks or inconveniences with regard to public security, health and hygiene, or the environment, all of which require special control in order to prevent risks or inconveniences, the most important of which is the risk of explosion, smoke and odors.

3.2. The classification standard of classified facilities and its impact on the environment

The impact study is in the body that studies the mutual impact between development and environmental programme projects for the purpose of reducing negative consequences and maximizing positive effects in a way that achieves development goals and does not harm the environment or human health (Khaled Mustafa, 2007).

The most important of these criteria are: the risk criterion, the standard of distance from residential areas, the standard of production or storage capacity, the standard of system applicable to the designated facility (Executive Decree 06–198, 2006).

- The risk criterion: The risk criterion means the degree of seriousness of the establishment and the extent to which it affects the physical environment (residential communities, private or public properties).
- The criterion of distance from residential areas: the criterion of distance from places and housing units, where classified facilities must be removed from residential units and a particular dimension is identified, especially of the first and second category.
- The standard of production or storage capacity: This standard means the classification of the classified facilities by the type of activity, for example: by production capacity, area, size, storage and quantity.
- The standard of the system applicable to the classified facility: there are two legal systems to which the designated facility can be subject: the licensing system and the permit system, and therefore there will be two types of facilities: established and exploited by Section (a) in its establishment and exploitation of the licensing system, and a facility classified as Section (b) under its operation for the permit system (Catherine, 2001).

Law 04–20 of 25–12–2004 on the prevention of major hazards and disaster management in the context of sustainable development, which defines industrial risks in Article 32 as the general scheme for the prevention of industrial and energy hazards sets out the total arrangements, rules and/or procedures for the prevention and risk reduction of explosions or gas emissions and fire, as well as hazards related to the treatment of hazardous substances.

Another concept is that of industrial hazard, an accidental event occurring in the factory, whose risk is on the industrial site and in the vicinity of the factory, leading to the leakage of hazardous materials affecting individuals, residents and property.

We notice from this presentation the dangers of classified establishments, which can have negative effects on the environment and the urban environment, in terms of the destruction of buildings, factories, and property and threaten the lives of people living near these areas, due to hazardous waste caused by chemicals which are, in turn, caused by great industrial facilities.

The industrial danger has several causes, among which are: a – Industrial accidents; b – Industrial waste.

3.3. The concept of danger

Article 02 of Law 04–20 of 25–12–2004 on the prevention of major threats and the management of disasters within the framework of sustainable development stipulates:

“Every potential threat to human beings and their environment is described as a major threat to human beings and their environment, which can be caused by exceptional natural hazards and/or human activities” (Law 04–20, 2004).

According to a report on major hazards and disaster coordination, the risk was defined as: each hazard which leads to loss of life and loss of environment (all that surrounds human beings) through natural effects or various activities, therefore leading to disaster (loss of life, property, environment).

The principle of prudence, under which the lack of technology, given current scientific and technical knowledge, should not be used to delay the adoption of effective and proportionate measures to prevent the risk of serious harm to the environment at an acceptable economic cost. The danger can be defined, and according to Article 02 of The Executive Decree 06–198 of 31–05–2006, which regulates the regulation applied to establishment classified for the protection of the environment, as “an inherent property of a substance, factor or energy source, which can cause damage to persons, property and the environment”.

We conclude through these legal definitions that the risk is inherent to the urban population primarily and to the urban environment, whether it is caused naturally or artificially.

- Potential risk: It can be defined as per Article 02 of Decree 06–198 of 05–31–2006, which establishes the regulation applicable to the classified facilities for environmental protection. The potential risk is an element that characterizes the occurrence of potential harm, associated with a risk situation and is usually defined by two elements: The potential for harm; The gravity of the consequences.
- Industrial Hazard: Law 04–20 of 12–25–2004 regarding the prevention of major dangers and the management of disasters within the framework of sustainable development, defines industrial risks in Article 32: the general scheme for the prevention of industrial and energy hazards determines the set of arrangements, rules and/or procedures for the prevention and reduction of the risks of explosion, or gas and fire emissions, as well as the risks related to the treatment of materials classified as hazardous materials.

Another concept is that industrial hazards are accidental events occurring in factories, and their risks are on the industrial site and in the vicinity of the factory, leading to the leakage of hazardous materials affecting individuals, residents and property.

We notice from this presentation of the dangers of classified facilities, which may have negative effects on the environment and the urban environment, in terms of destroying buildings, factories, and property and threatening the lives of individuals who live near these areas, due to the hazardous wastes resulting from the chemical substances that are caused by the major industrial facilities.

The industrial danger has several reasons, including: a – Industrial accident; b – Industrial waste.

Ministerial Regulation R1 on the Control and Management of Industrial Hazards, including Hazardous Substances, states that an industrial accident is an emission, fire, or explosion caused by uncontrolled developments occurring during the exploitation of an industrial establishment that poses a serious human health risk within or outside the enterprise and/or for the environment; it is immediate or subsequent to the usage of one or several hazardous substances (Anwar Abd errzak, 2013).

- Risk studies: As a result of the damage that may be caused by the waste (waste, or defuse gases) classified establishment, the Algerian legislator has developed a set of texts governing said classified establishment, the most important of them being:
- How to study risk: executive Decree No. 06–198 of 31–05–2006 regulating the legislation applied to classified facilities for the protection of the environment, and specifying the methods of studying the risk arising from classified facilities; Article 12 defines the objective of the risk study. The purpose of the risk study is to identify direct or indirect risks, which endanger persons, property and the environment as a result of the institution's activity, be it internal or external.

The risk study should allow for the control of technical measures to reduce the likelihood and to mitigate accidents, as well as regulation measures for the prevention and management of accidents. The risk study shall be carried out by a group of experts or a study bureau, in accordance with Article 13 of Decree 06–198 of 31–05–2006, which regulates the legislation applicable to classified establishments for the protection of the environment, specifying the following:

The risk study shall be carried out at the expense of the project owner by study offices, expert offices or specialized consultancy offices in this field and approved by the Minister in charge of the environment, after having consulted the concerned ministers when necessary.

- Sanctions related to the classified facilities in Algeria: according to Law No. 03–10 of 19–07–2003 on the protection of the environment in the framework of sustainable development, which is clarified in Article 101, the waste is confirmed by transcripts written by judicial police officers and environmental inspectors in two copies, one of which shall be sent to the governor and the other to the prosecutor.

Environmental inspectors take the following oath: I swear by God Almighty to perform my job faithfully and sincerely, to protect the secrecy of the profession, and to ensure the implementation of the laws of the state.

As specified in Article 102, anyone who exploits a facility without obtaining a license shall suffer a one year's imprisonment sentence (1) and a fine of five hundred thousand dinars (500,000 DZD). The court may decide to prohibit the use of the facility until a license is obtained, and the court may also order the return of the premises to their original state within a period to be determined.

As for Article 103, which clarifies that a penalty of two (2) years' imprisonment and a fine of one million dinars (1,000,000 DZD) is to be imposed on anyone who exploits an establishment in contravention of a procedure that has decided to suspend its operation or close it, or after a ban has been made in implementation of Article 102 above.

According to Article 104, whoever continues to exploit a classified facility, without complying with the decision to excuse, to respect the technical requirements shall be punished with a six (6) months' imprisonment and a fine of five hundred thousand dinars (500,000 DZD).

As for Article 106, it specifies that a penalty of one year's (1) imprisonment and a fine of five hundred thousand dinars (500,000 DZD) shall be inflicted on whoever obstructs the persons charged with guarding, monitoring, or conducting expertise for the classified facilities while performing their duties.

We notice that the Algerian legislator has defined several articles explaining penalties and deterrent measures for anyone who commits any violation that affects the urban environment, population centres, and the surrounding environment, with the aim of living in the midst of a comfortable urban environment free of all kinds of pollutants produced by classified facilities.

4. METHODOLOGY

The methodology of research is one of the most important reasons for the success of scientific research, so it is of great importance in the research and the researcher must grant it a large part of his work and thinking, in order to choose the methodology that suits the nature of his work on the one hand, and his specialty on the other hand, given that the subject of our research is space, we rely on the

descriptive analytical approach based on the description of the phenomenon as it is in fact, and then we analyse it, which is why we have adopted the descriptive approach to analyse the current status of the classified facilities through the case of the city of M'sila.

In the Framework methodology used to study the situation, the questionnaire (Form) was addressed and field observation and interviews with relevant bodies that are relevant to the subject of our research, namely establishment classifieds and their impact on the urban environment.

The employed research techniques were imposed by the nature of the work, as was our dependence on the following:

- a. Note: we relied on the note because it is characterized by the tangible aspects of the experience the subject of classified establishments, the relationship between individuals and how vulnerable it is. One of the advantages of the note: direct scans of the phenomenon, allows for the collection of data on nature, allows to identify the new information which the researcher had not noticed.
- b. Form: this method helps field data collection on the subject, as we form our research on most public data and assumptions about the search data.
- c. The interview: interviews were to be held with some officials (specialists in the field of study) within the Directorate for the Environment, the Directorate of Land Surveying, the Construction and Reconstruction Directorate, with the Office of the Director of classified establishments in order to clarify the information related to the subject.

The study allows us to collect certain documents, charts, and laws that will help to complete our research.

Urban planning represents a full range of social and economic measures, preventive health, structural or architectural technology, whose purpose is to create a reasonable or optimal planning structure for the city's residential community, based on ensuring the best working conditions, life, mobility and comfort for the population (Anwar Abd errzak, 2013). A case study area is the subject of the research by which the problem of the classified establishments is clarified at the level of the city of M'sila in terms of planning and location in the urban fabric.

5. STUDY AREA

The city of M'sila is located on the north-western side of the Shatt al-Hodna basin, where it is bordered to the north by the Hodna mountain range and to the south by the Shatt al-Hodna basin. It is an intersection point for both National Road No. 40 and National Road No. 45.

The Kosob valley passes through it, crossing the neighbourhoods in the north of the city and near the center, east of the industrial zone, and continuing its course near the Muzareer area, where we have the groundwater that feeds the city, finally reaching the Shatt al-Hodna.

The city of M'sila is the headquarter of the state, starting 1974, as it occupies a vast area estimated at 20,000 km², and since the beginning of 1974, the city of M'sila began to know many industrial and residential projects, some of which were focused in the state headquarters, while others spanned across the most important departments, currently including 47 municipalities, and 15 sub-prefectures (Daira), starting from the administrative division of 1984 (Planning and Reconstruction Guideline, 2014).

The city of M'sila occupies a distinct geographical position, located in the heart of the Algerian country within the basin between the plateaus and the hill, where it rises 460 m above sea level, and sits on an area of 1792.6 ha, accounting for 7.72% of the total municipal area. It is a crossroads for both National Route 40, National Route 45 and The Watercourse (Wadi al-Reed), which is among the most important reasons why the city of M'sila has been established and developed over different stages of time, occupied by about 214,661 people according to the 2014 census, i.e. 925 inhabitants/km².

5.1. Reasons for choosing M'sila city

M'sila city includes a group of urban units which were formed in different historical stages. It is also considered the “capital of the brood”, which saw the expansion and extension of the urban fabric in different and varying directions on the one hand, to other forms of urban convergence in terms of urban style, with classified establishments displayed in various layouts and environmental surroundings.

Some of the reasons that led to the choice of the city of M'Sila are the following:

- The fact that M'sila city contains the largest proportion – 842% – of the seed plants (all varieties), compared to other municipalities.
- We selected a neighbourhood of 700 homes for having the largest number of classified establishments across all neighbourhoods of the city.
- We have selected this type of classified activities because it is important, as we have noted the proliferation of these facilities quickly in the middle of the urban environment of the city and in an irregular manner, which has led us to try and find out if these classified establishments taking into account the management of environmental and urban planning of the city.

5.2. M'sila city location

The city of M'sila is one of the inner Algerian cities located within the following geographical coordinates: between two viewing circles: '35.48°, '35.67° North of the Equator. Between linear length: '4.57°, '4.48° east of the Greenwich line the North-South link is the seat of the state. The city is characterized by economic diversification. Municipality of M'sila: estimated Area B: (232 km²) inhabited by 214,661 inhabitants, with a population density of 925 inhabitants according to the Municipal Bureau of Statistics, 2014, an estimated area of study field Urban center of the City B (50.01 km²) (Fig. 1) (15) (Salim, Hadjab, 2019).

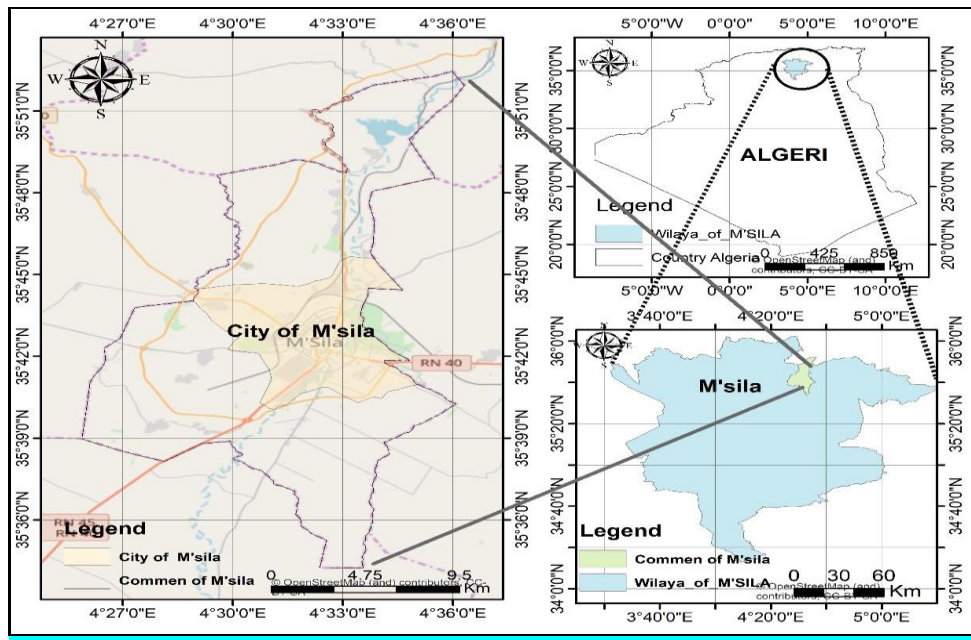


Fig. 1 – The location of the Study-Area: City of M'sila (Dehimi & Hadjab, a 2019, p. 194–3).

6. RESULTS AND DISCUSSIONS

The findings of the study on the impact of classified facilities on the urban environment and the city's population centers can be summarized as follows:

6.1. The development of classified establishments in M'sila

According to the statistics compiled by the Directorate for the Environment, the development of the classified facilities in M'sila has been characterized by different stages, as shown in Table 1.

Table 1

Number of classified establishments in M'sila The Directorate
for the Environment in M'sila (2020 stats).

| No. /year | 1977 | 1987 | 1997 | 2020 |
|---|------|------|-------|-------|
| <i>Classified establishments city of M'sila</i> | 38 | 84 | 370 | 980 |
| <i>Percentage</i> | 2.58 | 5.71 | 25.13 | 66.58 |

Table 1 shows that the development of classified facilities (all categories) in M'sila went through different periods. There is a growth of classified facilities at each stage. The number of facilities in 1977 was estimated at 38 (2.58%), and in 1987 there were 84 (5.71%).

In 1997, the number reached 370 (25.13%). In 2020, the number of facilities was estimated at 980 (i.e. 66.58%), from the study of the development of population growth and the development of classified facilities of M'sila, we conclude:

These facilities are rapidly spreading on the urban level of the city, but they have a negative impact on the urban environment through pollution brought by them on the environment and on the health of the population, especially those living near the classified facilities, such as: blacksmithing, carpentry, car wash and lubrication, and mechanical repair of cars. The urbanization of the city has a great impact on the emergence of classified facilities where urban expansion is part of the urban environment and has several concepts (Figs. 2, 3). "Urban sprawl is a planned or unplanned outward expansion of urban areas that usually creates low-density residential patterns" (Maryamsadat, Amrah, Houshmand, 2016).



Figs. 2, 3 – Car washing and lubrication facility and wood carpentry facility, two class III classified establishments licensed by the Municipal People's Council (Saci, Young 2019).

There are several complaints by the people close to these types of activities, especially wood carpentry and blacksmithing. In addition, there is visual pollution where some facilities' owners exploit the sidewalk so as to present their works outside the facility.

There is also possible danger on passers-by and children who live near these activities, including mechanical repairs, blacksmithing, wood carpentry and aluminium joinery. Therefore, it is necessary to have a periodic check by the concerned bodies (the Follow-up Committee of the classified establishments) in order to not let the owners of these types of activities break the law.

Table 2

The number of classified establishments (for all items) at the level of the city sectors
The Directorate for the Environment in M'sila (2020 stats).

| Sectors | Sector 1 | Sector 2 | Sector 3 | Sector 4 | Sector 5 | Sector 6 | Sector 7 |
|------------|----------|----------|----------|----------|----------|----------|----------|
| No. | 120 | 190 | 69 | 175 | 310 | 67 | 47 |
| Percentage | 12.24 | 19.39 | 7.04 | 17.86 | 31.63 | 6.84 | 5.00 |

From the preliminary reading of Table 2, we notice that the spread of classified facilities across the sectors is irregular. The number of classified facilities located in Sector 5 reaches 310, the largest percentage estimated at 31.63%, followed by Sector 2 and Sector 4 with values such as 190 and 175, respectively, that is, about 19.39% and 17.86%, followed by Sector 1 with 120 classified facilities (12.24%), while the number of classified facilities located in the third sector does not exceed 69.

Sectors consist of a group of neighbourhoods, but this does not necessarily reflect the disparity in the type of activity, and therefore how the designated establishments and the urban environment mutual impact each other (Fig. 4).

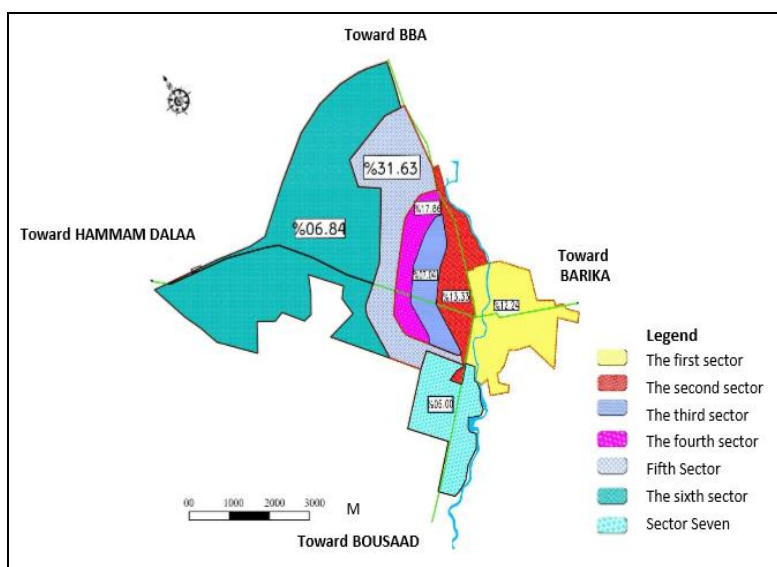


Fig. 4 – The number of classified establishments (for all items) at city sector level.
The Directorate for the Environment in M'sila (Saci, Young, 2020).

6.2. Types of classified facilities in M'sila

The Executive Decree 1986–06 of 05–31–2006 governing the regulation applied to the classified facilities for environmental protection, and according to Article 03 thereof, classified facilities into two classes: facilities subject to licensing, and facilities subject to authorization.

- First class facilities are subject to a ministerial license, such as: oil pumping facility, cement industry facility.
- Second class facilities are subject to state licensing, such as: yogurt, flour mills, poultry farming.
- Third-class facilities are subject to the authorization of the Chairman of the Municipal People's Council, such as: technical blacksmithing facilities, mechanical repair shops, aluminium carpentry, wood carpentry, car washes.
- Forth class facilities are subject to municipal permits, such as: bakeries, bathrooms, sewing and tailoring workshops, making sweets and refreshments.

The focus was on some establishments classified as Class III, because of their presence within the urban perimeter of the city, because of the complaints, harassment and inconvenience towards residents who have their homes close by, because of the illegal abuses by the craftsman amid the urban landscape, such as: wood carpentry is classified as a third-class facility under the authorization of the President of the Municipal People's Assembly (Figs. 5, 6). We can see from picture 1 that the craftsman uses the sidewalk to display his work and put devices there illegally, which impedes the free movement of pedestrians.



Figs. 5, 6 – The first-class cement factory is licensed by the ministry located in the city of M'sila, threatening health and the environment because of its proximity to some urban communities, which affects the health of the population (Saci, Young 2019).



Figs. 7, 8 – The 7th figure represents the mechanical repair shop for vehicles under municipal license of the third class, and the 8th figure represents a technical blacksmith facility subject to a country's third category license; the two facilities pose a threat to the urban environment (Saci, Young, 2019).

The classification of this workshop is based on the energy and size of electrical machinery, and the greater the area and volume of electrical power of the machines within the classified establishments, the more the classification changes according to the degree of risk to the population, to property, and to the Environment.

The facilities in Figures 7 and 8, showing a technical blacksmithing facility, and a car washing and lubricating facility, were classified as third-class under the license of the President of the Municipal People's Council. The classification criterion is the resolution of the area (m²) and the more the classification changes according to the law on the designated establishments, the higher the degree of risk.

A technical blacksmith's facility is a class III designated facility under the license of the President of the Municipal People's Council, and we notice in the picture that the craftsman uses the pavement and the road in the development of appliances and displays of works, which has hindered the movement of pedestrians (pedestrian movement).

We conclude from the numerical study of classified facilities that there is a large disparity in the number and type of activities practiced by artisans in urban communities, particularly residential neighbourhoods.

- The spread of these facilities in a spontaneous manner, the lack of balance in their distribution and place, as well as the lack of a clear reading of this type of activity. We notice communication (direct friction between the inhabitants of the neighbourhoods and the various designated facilities), which makes us wonder about the impact on the lives of the people concerned.
- There is a large disparity in the type of activities for artisans in residential neighbourhoods, reflecting the absence of a law that provides for and clarifies their presence in the city.
- There is no continuous monitoring by officials and committees that have to do with the protection of the urban environment and public health, and not to offend the aesthetic character of the city, with no pollutants (noise, pollution, dirt etc.) that disturb the city's residents, especially those who live near the unfolding activity of classified facilities.
- The population of designated facilities has been affected by the noise and dangers caused by the latter, particularly children and bystanders who live near this type of activity.

Legal violations by the exploiter (craftsman) of the classified facility are at the level of the urban environment and the urban perimeter. Residents are disturbed by the pollutants and inconveniences caused by the classified facilities to the urban environment.

Giving priority to complaints lodged by residents due to environmental problems that are made by the (craftsman) exploiter of classified facilities at the level of urban agglomerations, and in particular, individual residences that suffer from several legal violations in the urban environment of the city. The exploitation of the sidewalk in illegal ways to display works and place devices, which hinders the movement of pedestrians.

The exploitation of the sidewalk in illegal ways to display works and place devices, which hinders the movement of pedestrians. Ensuring the stability of classified establishments by classifying them according to the list of executive decree n° 07–144 of 19/05/2007, which classifies these establishments into four categories and specifies the scope of application, the content, and the ways of ratification of the study and summary impact on the environment, to make sure the exploiter (craftsman) respects the classification criteria without breaking the law.

The lack of continuous and permanent monitoring by the concerned bodies (the monitoring committee). The spread of classified facilities at the city level (neighbourhoods) in a chaotic and irregular manner indicates that there is no scheme showing the presence of classified facilities in terms of location, number and activity.

Developing the environmental awareness of the local community, this appears through their behaviours, various practices and daily dealings, such as protecting the urban environment from the various types of pollution caused by classified facilities.

Environmental education and strengthening environmental awareness because any legal or administrative reforms will not be of benefit unless you find a community and population base waiting for them to support and interact with them in protecting the city and the urban environment from pollutants resulting from classified facilities that cause a range of environmental hazards.

Studying the environmental impact of any project (classified facility) before approval by the official authorities, to spare us in the future all the environmental problems that may result from it.

The existence of facilities classified from Class IV, Class III and Class II, the latter, according to the Classified Establishments Law 06–198 that controls the regulation applicable to institutions classified for environmental protection, subject to state licensing, must be outside the urban grid of the city because of its degree of risk.

Poor management and planning of the classified facilities within the urban grid have led residents to submit complaints to the concerned bodies, related to the protection of the urban environment, due to the inconvenience, harassment and pollution caused by it, especially the mechanical repair facility for cars, wood carpentry, car washing and lubrication, technical blacksmithing. Planning and design must take into account all safety and security conditions in order to protect the citizens and the population in the event of an explosion or fire accident so that there are no human or material losses.

The spread of these facilities in a spontaneous manner, the lack of balance in their distribution and location, and also the lack of a clear reading of this type of activity, where we observe communication (direct contact between neighbourhood residents and the various classified facilities), makes one wonder about the impact it may have on the lives of the concerned residents.

Reducing some classified facilities in the urban tissue by focusing on activities that offend society and annoy the inhabitants, such as: aluminium carpentry facility, wood carpentry, car mechanical repair, technical blacksmithing, car washing and lubrication, turning and straightening.

Changing the location (location) of classified facilities, and we especially mention those that cause inconvenience to the residents of the city outside the urban perimeter and the population centers of the city, and we suggest that the latter be in the industrial zone that includes all craftsmen activities such as (wood carpentry workshop, mechanical repair of cars, aluminium carpentry, turning and straightening, technical blacksmithing, car wash and lubrication, wire wrapping), in order to preserve the urban environment and the urban surroundings of the city. In addition to not distorting the urban façades of some residential neighbourhoods with the presence of this type of activities in order to reach a clean city.

In terms of the type of activity, this study found that most of the classified facilities are widespread in neighbourhoods of an individual character, especially this type of activity (mechanical repair of cars, washing and lubricating cars, technical blacksmithing, aluminium carpentry, coil wrapping, wood carpentry, turning and straightening).

However, classified facilities are fewer in neighbourhoods of a collective nature such as: bakeries, cleaners, making sweets and refreshments, sewing and detailing clothes. The lack of a clear reading in the positioning and presence of the classified facilities is seen in the urban tissue of the city.

There is a wide variation in the type of activities for craftsmen in the residential neighbourhoods, which reflects the absence of a law stipulating and clarifying the percentage of their presence in the city. Residents are disturbed by the presence of some classified facilities near their homes, due to the inconveniences they cause, such as: noise, danger, dirt, and smell.

As we noted previously from the study of classified facilities, there is a big discrepancy between the number of classified facilities in various sectors. We also notice here the disparity of these establishments in terms of type, activity and number, as well as the lack of continuous monitoring by officials and committees related to the protection of the urban environment, which is represented by offending the aesthetic character of the city, and causing the emission of pollutants (noise, disturbance, pollution, dirt, ...) that disturb the city's residents, especially those who live near the classified facility's activity.

Restricting the legal accommodation for environmental crimes and raising the level of penalties assigned to them in proportion to the seriousness of their effects.

These results confirm the hypothesis: the intersection between residential communities and classified facilities within the urban environment results in many environmental dangers because of poor urban governance. Therefore, it is necessary to avoid the presence of classified facilities in the city centre, and we propose establishing them at the outside of the urban areas, i.e. in the industrial zone.

7. CONCLUSIONS

Throughout our study of the classified facilities and their impact on the urban environment in Algeria, we noticed that these facilities are spread among the residential areas in a random and anarchic manner. That is, they are not subject to urban laws, and they are found in all neighbourhoods in different types and distribution. It is also worth noting that the need for security has become a necessity of absolute priority in the design, construction or exploitation of any public facility, whether commercial or industrial.

Therefore, proper scientific planning for the prevention of the dangers of classified establishments and the methods of confronting them are among the most important foundations of any country's policies. By doing this, we can assess and identify environmental problems and their dangers, and we can make recommendations and measures to prevent them or to minimize their occurrences.

Hence, the technical specifications to prevent the dangers of the classified establishments when designing and constructing residential housing and public, commercial and industrial institutions are for the safety requirements, which include a set of the executive measures. So, we should all cooperate towards what serves the common good. In the 1970s and 1980s, this type of classified establishments was not of great importance. There were no clear laws on how to deal with classified establishments, but we have noticed in our study of the laws related to these establishments began to recently receive great attention from the authorities concerned, with the issuance of several laws providing for the management of enterprises classified in terms of license and how to establish them, such as Executive Decree 06-198 of 31-05-2006, which regulates the legislation applicable to institutions classified as under environmental protection. Decree No. 07-145 of 19-05-2007 specifies how to study the impact on the environment, by mentioning the scope of application, the content and the ways of validating the study and of summarizing the impact on the environment. Through our study of the classified establishments and their impact on the urban environment, we have noticed that the latter spread among the residential neighbourhoods in a random and chaotic manner, that is, it is not subject to urban controls, so that we find it spread and distributed in all residential neighbourhoods in a different way, in terms of type, number and distribution.

It is also worth noting that the human need for security and safety has become a necessity, which has imposed absolute priority, when preparing the design and construction or the exploitation of any public enterprise, whether commercial or industrial. For this reason, sound scientific planning to protect against the dangers of classified establishments and methods of combating them is one of the most important foundations on which the policy of any country should be based. In order to assess and codify the occurrence of hazards and identify their sources with the development of recommendations and measures to prevent their occurrence and ways to address them, to mitigate their effects in the event of occurrence and to reduce recurrence, therefore, the technical specifications for the prevention of hazards classified establishments, which must be adhered to in the design and construction of residential buildings and public, commercial and industrial institutions is the safety requirements of those institutions, which include a set of operational measures in protection magazines, so we should all cooperate in the public interest.

In this context, and given the importance of the urban sector and its role in the development of service projects, in order to obtain a comfortable and safe urban environment of pollutants produced by classified establishments, which respond to human requirements within the urban environment, The owners of classified establishments (craftsmen) must abide by the laws to protect the environment and the urban fabric of the city.

Because of the economic and service benefits that classified establishments provide to society and the population, they have significant consequences for the urban fabric of the city, so these environmental problems must be avoided by establishing regular planning and through the management of these facilities and the study of the social, cultural and environmental dimension.

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