

The natural and Climatic Characteristics of the African Sahel Region and Their Repercussions on the Population

الخصائص الطبيعية والمناخية لمنطقة الساحل الإفريقي وانعكاساتها على السكان

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Abstract:

There are many definitions and concepts when it comes to the African Sahel region, due to the natural overlap between its parts on one hand, as well as its geographical extension and ethnic diversity. In general, it is known to be an ecological belt with homogeneous natural and climatic characteristics; bordered on the north by the African Sahara and by the tropical savanna on the south, To the west is the Atlantic Ocean and to the east is the Red Sea, and thus it includes about ten political units and occupies an area of more than 3 million square kilometers. With a population of more than 50 million people, the region was distinguished by many historical, political and sociological phenomena, which made it receive attention and interest to be studied.

Keywords: The African Sahel; environmental security; migration; natural and climatic characteristics; political stability.

ملخص:

لقد تعددت التعاريف والمفاهيم حول منطقة الساحل الإفريقي وذلك بسبب، التداخل الطبيعي بين أجزائها من جهة، وكذا امتدادها الجغرافي والتعدد الاثني بين أقطارها، وعلى العموم، فهي تعرف على أنها حزام بيئي له خصائص طبيعية ومناخية شبه متجانسة، حيث تحده من الجهة الشمالية الصحراء الكبرى الإفريقية، ومن الجهة الجنوبية منطقة السافانا الاستوائية، ومن الجهة الغربية المحيط الأطلسي، ومن الجهة الشرقية يحده البحر الأحمر، وبذلك فمنطقة الساحل الإفريقي تضم حوالي عشر وحدات سياسية، يتربع على مساحة تتعدى ثلاثة ملايين كلم مربع، وبتعداد سكاني تجاوز 50 مليون نسمة. والملاحظ على المنطقة أنها تتميز بالعديد من الظواهر الطبيعية التاريخية، والسياسية وكذا السوسيوولوجية والتي جعلت منها منطقة تختلف عن ما يجاورها في القارة الإفريقية، وهذا ما يجعلها تحظى بالاهتمام والدراسة.

كلمات مفتاحية: الساحل الإفريقي، الخصائص الطبيعية والمناخية، الاستقرار السياسي، الهجرة، الأمن البيئي.

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1. Introduction

The African Sahel region is considered to be one of the most important geopolitical areas in the world. As it has natural, human, historical, cultural and political characteristics that distinguish it from what is next to it, which made it a place of greed and competition. Moreover, this region constitutes a link between white northern Africa and its Arab-Islamic civilization, and sub-Saharan Africa and its black civilization. Also, in order to give it a good definition and what distinguishes it from natural, climatic and even human characteristics, and how it affected the lives of the population.

This study attempts to focus on the natural and geographical aspects of the African Sahel region, and the relationship between this latter and the phenomenon of the dangerous trinity composed of immigration, abused substances, poverty and terrorism, along with drug trafficking.

This research falls under the same research line exploring the same topic, from which we mention: “West Africa under attack: Drugs, organized crime and terrorism as the new threats to global security”, by DE ANDRES; “Not Just in transit drugs, the State and Society in West Africa”, by the West Africa Commission on Drugs, directed by, Olusegun Obasanjo;” Human Rights, Climate Change, and Migration in the Sahel”, by the United Nations.

Accordingly, the problematic of this study is as follows: The African Sahel region, the geographical implications between influence and vulnerability.

Our study aims to:

- Clarify the features of the nature and landscape of the African Sahel region.
- Emphasize on the phenomenon of the geography’s influence on the African Sahel region
- Explore ethnic and societal diversity in the African Sahel region and its impact on the terrorism phenomenon and political instability, together with the illegal immigration to the north and the extent of its impact on the region in general.

2. The natural characteristics of the African Sahel region: in the forefront of which we find:

2.1. Location and area:

At the outset of the discussion and before delving into the geography of the African coast, we must explain the term “African coast”. This term has been used since the ancient times, and what is meant by that is the strip, border, beach, or the southern edge of the Great African Sahara that separates southern Africa from the North African region (قلاع الضروس، 2013-2012، صفحة 21).

Hence, the African Sahel region is that region that extends from the Sahara Desert in the north to the savannah region in the south. The African coast passes through many countries of the continent, starting from Senegal on the borders of the Atlantic Ocean in the west, to Ethiopia and Eritrea on the borders of the Red Sea in the east, and It includes Mauritania, Mali, Niger,

Burkina Faso, northern Nigeria, Chad, Sudan, parts of the Algerian south, that is, the area extending from the Atlantic Ocean to the Red Sea (موسى، 1982، صفحة 380)

And astronomically, it is the area that extends between latitudes 12° and 22° north of the equator, and between longitudes 18° west and 42° east of the Greenwich meridian, and thus it includes 10 political units, sitting on an area of more than 3 million km² with a long distance of 5407 km, and a width of 350 to 500 km (Plangol, 2012, p7).

We will elucidate the map of the countries of the African Sahel in this document:

Figure 01 : A map that illustrates the African Sahel countries



<https://www.britannica.com/place/Sahel>

B- Climate:

Since the African Sahel region is the dividing line between North Africa and sub-Saharan Africa, which extends from the Atlantic Ocean to the Red Sea, the climate of this region ranges between the semi-arid climate that prevails in the southern regions, and the dry climate that prevails The northern

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regions, and it should be noted that the coastal strip is characterized by the fragility of its surface and the poverty of its vegetation cover, besides that, it is known to be seasonally rainy.

It is worth noting that precipitation is very irregular and the coast receives a small amount of precipitation, the rate of which falls between 100 mm and 600 mm per year, and most of the rain usually falls within one or two months, while other months it remains completely dry, and the rate of rainfall varies from one region to another, depending on the existing climate, as the rate of precipitation decreases as we head towards the north.

This area has gone through five periods of drought during the last 100 years; the African Sahel region is also characterized by high and relatively regular temperatures, often exceeding 50 degrees Celsius.

The region is not familiar with hypothermia. (كاهي، 2019، صفحة 182) Except in the winter, when the temperature rates become very different, as the temperature difference between night and day exceeds twenty degrees Celsius.

Climate phenomena (rain, floods, winds, drought,...) are generally characterized by their strength in the African Sahel region, the winds usually blow strongly, causing storms called "harmtans", which lead to thick dust rising high in the sky, blocking the sun's rays, this phenomenon may extend for days (عشوري، 1998، صفحة 6).

The countries of this region are also known to be exposed to severe floods, researchers and specialists have confirmed that global warming is the principal reason for that, hundreds of people have been killed and millions displaced as a result to that, especially in Burkinafaso, Chad, Nigeria, Senegal, Sudan, Mali and Niger.

C- Topography:

The African Sahel region is distinguished by its simple natural terrain, which is dominated by a desert characteristics; most of its terrain is flat, except for some highlands and plateaus, besides that, there are some humid areas and savannahs.

The average height of its mountain chains range between one hundred and four hundred meters above sea level, but it is characterized by a variation in its shapes from one region to another due to the factors of erosion in the region, in addition to the sharp differences in temperature rates between night and day.

Among the terrain, we mention: the Adrar-Afoghas highlands in Mali, the Tibesti Mountains in Chad, in addition to the Ennedi Plateau located in northeastern Chad.

The African coast is also characterized by the scarcity of surface water due to the presence of highly permeable sandy soil, in addition to the high

temperatures. Despite this, we find some flat plains with wet basins fed by rainwater, including: the Senegal River, the Niger River, Nile, and the Chad lake.

As well as the vast sandy desert areas, especially in Mali and Niger, whose surfaces are dominated by a desert character (تاج، 2011، صفحة 3)

The area of the arid areas on the coast has reached nearly 70%, and the percentage of arable land does not exceed 30%. This is what made the coastal countries strive to carry out land reclamation operations, work to expand the irrigation areas, and construct dams. (بويبية، 2011، صفحة 17)

D- Vegetation and animal cover:

The African Sahel region is dominated by a desert character, therefore, desert lands spread where the climate intensifies and becomes more severe, where thorny desert grasses spread.

Although this does not negate the presence of some grasslands and savannahs, which spread mainly in the regions The southern regions of the coast, where the lands of the southern regions are characterized by the spread of several types of trees, on top of which are acacia trees and oaks, the vegetation cover lacks diversity as we head towards the north. (صيفي، 2016، صفحة 220)

This vegetation provides a good environment for a variety of animals, where grazing is widespread, and the herd of livestock is distributed among camels, goats, and sheep.

In addition to the presence of some deer, hyenas, several types of birds, and some endangered animals. (قلاع الضروس، 2020، صفحة 346)

2- The demographics of the African Sahel region:

The African Sahel region is characterized by a low and unbalanced population density, which is reflected in the vast area of the region, and a discrepancy was recorded in the distribution of the population, where we find a very weak population density in all northern regions, but it rises in the political capitals.

The region includes two genera: (Black and white), where blacks are located in the southern part, while whites are spread in the northern part. (صيفي، 2016، صفحة 222)

It is necessary to point out that the African Sahel region, despite its low population density, is characterized by racial and ethnic plurality, where the races overlap and each has a specific style and different customs and traditions.

The climate played a major role in the emergence of these gatherings and the emergence of conflicts over strategic locations. (رياض، 1973، ص 219)

The diverse social composition of the African Sahel region made the level of social cohesion weak, especially in light of the absence and lack of a unified national culture, where we find, for example, in Mauritania the Moor

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tribes, who are the conquering Arabs who settled in North Africa, and the Artan tribes, who are the descendants of Negroes descendant of slaves.

In Mali, we find five main tribes: the Mandinga tribe, the Balsar tribe, the Folt tribe, the Sahara tribe (includes the Tuareg and the Arabs), and the Songhai tribe, while in Niger we find the Hausa, Zarma, Tuareg, and Arab tribes. (رياض، 1973، صفحة 219)

In addition to the ethnic diversity in the African Sahel region, we also find religious pluralism between Muslims, Christians and people of local African beliefs, not to mention the linguistic plurality between Arabic, French and English in addition to the local language of the different tribes. (منصوري، 2012-2013، صفحة 55)

And with the presence of these diverse human structures and ethnic pluralism in the African Sahel region, various conflicts and tribal and ethnic conflicts arose, and were represented in the crises of ethnic groups and the dilemma of local development, which created the problem of social heterogeneity. (رياض، 1973، صفحة 220)

3-The economic capabilities of the African Sahel region:

Most of the lands of the African coast are of an arid desert nature and there are no conditions for life in it. However, despite this, it is rich in many and varied natural resources, the percentage of which varies from one country to another, and these resources can make the African coast region an important economic pole (قلاع الصروس، 2020، صفحة 345). Among the most important of these wealth we find:

A- Mineral resources:

Numerous reports indicated the presence of large quantities of reserves of gold, uranium, coal, iron, phosphate and copper in the African Sahel region, where we find that uranium is the most important natural resource possessed by Niger, along with gold and high-quality coal. (حنفي، 2007، صفحة 91)

While the state of Mauritania was famous for the diversity of its mineral resources of iron, copper and phosphate, however, the agricultural activity took the lead in the country, and statistics indicated that the state produces many agricultural, leather and animal products, on top of which is cotton, which is exported to the countries of the west of the African continent. (صيفي، 2016، صفحة 221)

As for the state of Mali, we find that the extraction of minerals is one of the basic industries, they rely on extracting gold, copper and diamonds, while in the state of Senegal, we find that the most important minerals that characterize the state are iron ore and phosphates. (علي، 2007، صفحة 56)

B - Oil and Gas:

The African Sahel countries have huge oil reserves, and one of the advantages of African gas is that it is closer to the surface and easy during the extraction process, and the process of marketing it is easy because of the strategic location of the continent on one hand, and on the other hand, due to the concentration of its extraction and refining stations near the ports. (Heinrigs, 2007, p12)

The state of Niger has large oil reserves estimated at about 324 million barrels, which were recently discovered. However, the oil production process remains below the required level, given that this country has recently discovered oil.

Accordingly, many American companies initiated exploration and search for oil hoping to find new wells to raise the amount of production, and it is worth noting that oil was an effective cause of fueling the armed conflict between some tribes. (قلاع الضروس، 2020، صفحة 343)

As for the state of Chad, although the quantities of its oil production are weak compared to the quantities of oil production in the state of Nigeria, this natural resource is considered a good source of income, as it contributed to raising the level of the economy of the state of Chad, especially in the construction and public works sector.

It is also noted that the government of Chad seeks to spend oil revenues and profits on its development projects in an effort to limit and reduce the poverty rate in the country. (Heinrigs, 2007, p15)

While the State of Sudan is characterized as a region rich in natural resources, and oil is the most important of its exports, as the process of exploration for this important substance in the region began in 1974, by American exploration companies, headed by Chevron. (قلاع الضروس، 2020، صفحة 343)

Later on, the State of Sudan signed agreements with multinational companies, including French and Canadian. It must be mentioned that this natural resource was a major cause of the division of the country, as the conflict between the North and the South arose. (صيفي، 2016، صفحة 221)

While the country of Mauritania, thanks to its important and distinguished strategic geographical location, made it contain several types of natural resources that could not be devoid of oil, and accordingly a series of exploration operations began, and the first oil well was discovered in 2001. (قلاع الضروس، 2020، صفحة 344)

And with the multiplicity and diversity of energy resources in the African sahel region, the major countries sought to obtain these sources in various ways, and the competition intensified day after day, and internal conflicts emerged in the countries of this region and the conflict increased over the

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division of natural resources, similar to the two states of Sudan and Nigeria. (السيد، 2009، صفحة 180)

4- The effect of natural and climatic characteristics on the population:

The cause of the spread of wars, conflicts and instability of security in the African Sahel region is due to the identity crisis and the weakness of national integration resulting from the random planning created by the European colonialists during the colonization days.

Accordingly, the African Sahel countries inherited national borders from the establishment of the colonizer, which led to their failure in achieving its authority over its lands. (ج، 2009، صفحة 133)

The African coast is among the regions that know several interactions of a conflictual nature, which made it a source of various security threats, and high-risk crises that affected even areas outside national borders, and these crises were known as the dangerous trinity represented by terrorism, clandestine migration and drugs.

A- Terrorism:

The biggest and most important challenges and threats facing the security of the African Sahel region is terrorism, which has begun to spread widely and in a concerning way.

Studies and researches indicate that the main reason for the emergence of terrorism is the economic and political backwardness, along with the extreme poverty experienced by the countries of the region, in addition to the ethnic and religious diversity.

As the tribes felt that they were deprived of the simplest most basic necessities the human being lacks.

These thoughts caused the occurrence of internal conflicts between these tribes, these conflicts aimed to obtain the most important lands and the most prominent wealth. (زقاع، 2014، صفحة 63)

Accordingly, it can be said that terrorism has a close connection to the social aspect in which ethnicities felt marginalized within their own country and robbed of their most basic rights.

Especially if another country intervenes in favor of the second country against ethnic groups, and this results in mistrust and adopting violent behavior against any foreigner. , and even against their fellow countrymen for their own interests. (ج، 2009، صفحة 135)

And with the events of September 11, 2001, the region turned into an ideal transit area for various terrorist extremist organizations and organized crime networks, and the African Sahel region became the focus of attention of

the United States of America, as it became one of the most important geopolitical areas (زقاع، 2014، صفحة65)

It should also be noted that the terrorist phenomenon has emerged at the level of the African Sahel with the beginning of the new millennium, and the kidnapping of foreign tourists in the Greater Sahara in 2003 is considered the first emergence of the phenomenon of terrorism in the African Sahel region, where 32 tourists were kidnapped of different European nationalities (صايح، 2014، صفحة105)

Two years later, a robbery took place on a military barracks in Mauritania, killing 15 soldiers and injuring a number of others. The terrorist group succeeded in seizing a large number of weapons and ammunition, in the year 2007 a terrorist operation took place that claimed the lives of four French tourists. In the Mauritanian desert. (Roussellier,2011,p55)

The African Sahel region has been classified within the "List of Dangerous Areas" by the United States of America and Western European countries, as the latter insisted on the United States of America to establish a military base in the region, and the state of Algeria was chosen as its headquarters because of its regional location in the middle of the region.

However, the countries of the region rejected any American intervention in the African Sahel region

(شرقي، د.ت، صفحة 84) .

And with the continuous increase of the terrorist phenomenon in the African Sahel region, the mechanisms to confront this phenomenon have diversified and multiplied, in the form of an indispensable necessity to provide the conditions for security and stability.

Later on, and after a series of successful oil discoveries in the region, the interest of foreign countries in the African Sahel region increased, and they sought to maintain peace there in the hope of preserving their interests and plundering the region's wealth. (العامر، 2010، صفحة35)

Consequently, In 2012, the US government announced a new US strategy regarding spreading security in the African Sahel region, by adopting four pillars represented in strengthening democratic institutions, stimulating economic growth and investment, attempting to promote peace and security, as well as promoting development.(شرقي، د.ت، صفحة88)

The African Sahel countries also sought to stop this phenomenon, which is increasing dramatically, and it was agreed to form a joint military force of up to 85,000 soldiers to secure the borders of the region, and to intensify patrols with the aim of addressing cross-border crime.(Roussellier,2011,p56)

B- Secret immigration:

Secret immigration is the most important threat that has an impact extending from the African Sahel region to Europe, and the phenomenon of

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secret immigration and death boats has increased, whether across the sea or across desert borders. (ج، 2009، صفحة136).

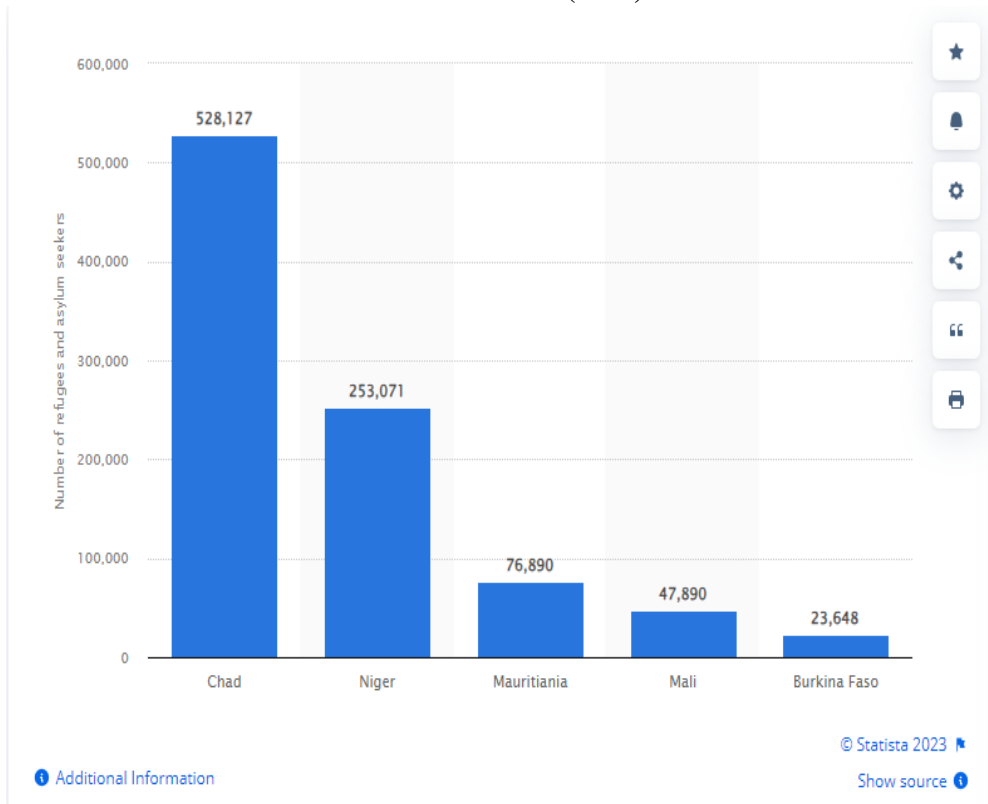
The danger of this phenomenon lies mainly in the fact that it smuggles people, drugs and suspicious goods, and cooperates directly or indirectly with terrorist groups, as the latter provide cover to ensure the facilitation of the immigrant's arrival in exchange for sums of money.

However, the reality is that such actions threaten neighboring countries economically, socially, and it even menaces their security and safety, which will create a significance disturbance in the African Sahel area and its surroundings. . (زقاع، 2014، صفحة66).

Furthermore, migration numbers are noticeably increasing year after year, and they start from the African Sahel and Sahara regions, towards North Africa and Europe, and what makes things interesting is the reasons that drive these huge numbers of young people to turn to these operations, from which we mention wars and Persecution, poverty, and even the climatic and environmental factor. (ظريف، 2016، صفحة13).

The countries of the region have tried hard to encourage stability by building urban areas, but all their attempts failed, and the local population continued to travel in the conviction that secret immigration is the best way to preserve life, in light of the harsh natural conditions and the failed political, complicated, and social life; However, most of these operations have a tragic termination where it ends with the boats sinking in sea and the loss of human lives. (Taje, 2010,p02)

Figure 02: A chart illustrating the number of migrants in some of the African Sahel countries (2021)

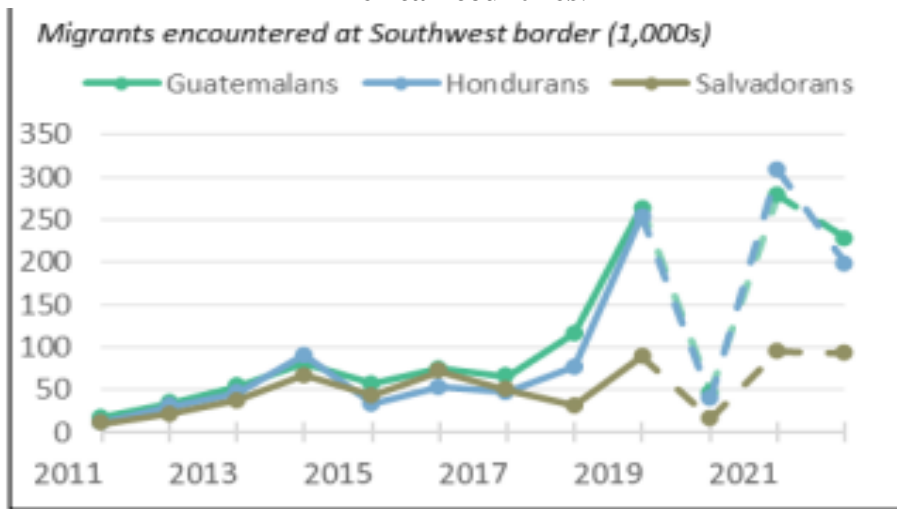


<https://www.statista.com/statistics/1237231/refugees-and-asylum-seekers-in-the-sahel/>

To elucidate the phenomenon, consider a model reflecting the escalation of migrant and refugee numbers in select countries within the region during the year 2021. This model aims to illustrate the profound impact of environmental, political, economic, and ethnic factors on population migration.

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Figure 03: A chart illustrating the number of migrants in some Central American countries.



[file:///C:/Users/Station/Downloads/central%20america%20\(1\).pdf](file:///C:/Users/Station/Downloads/central%20america%20(1).pdf)

Notably, this influence extends beyond the Sahel region to Central America, significantly shaping migration patterns towards the United States. The elevated figures presented in the ensuing chart underscore the intricate interplay of these multifaceted elements in driving migratory trends across both regions.

C- Drugs:

The state of political and social fragility afflicting the African Sahel region facilitates the process of intervention and penetration into the region, by several actors, whether by international powers competing for the continent and its bounties - from natural resources

This operation was also executed by criminal groups that have found the environment to practice illegal activities from drugs and weapons trafficking, all of which impose a challenge for the safety of the African sahel region. (ناصر، 2021، صفحة56).

The reports of the International Narcotics Control Board (INCB) for the year 2017 confirmed that the phenomenon of drug trafficking has witnessed an increasing growth in the African Sahel region, especially cocaine, which is smuggled to illegal markets in Europe through Africa. (ناصر، 2021، صفحة64).

As a matter of fact, It is noticeable that not all drugs are manufactured in the African Sahel region, but rather come directly from Latin America via ships, the latter loaded with types of drugs in addition to weapons and ammunition, and these operations are carried out easily because a large

proportion of drug money goes to corrupt government officials, by offering them bribes in order to overlook such operations. (السايح، دت، صفحة 24)

Reports indicated that northern Mali has become a bridge for smuggling activities, whether for drugs, immigrants or militants, to North African countries, and this is after the northern Malian region became not subject to government control due to rebellion activities.

Many armed groups that possess an arsenal of weapons are active in these areas, for which drug trafficking is considered the main financial base for them, and all this in the absence of strong governments that combat their presence and activity. (صايح، 2014، صفحة 107)

Conclusion:

In conclusion, the African Sahel region is a vast arid desert lands, most of which is characterized with a hot, dry climate with little precipitation together with a fragile vegetation that greatly affected negatively the social and political life of the population, which allowed a development of several dangerous aspects from which we mention the political conflicts and terrorism, as well as poverty, migration and trafficking in contraband such as drugs and weapons, along with medications.

This outlook has spread into the world and affected it, which made this latter try to find solutions to fight it and then eliminate it eventually, but the administrative and political mismanagement together with some natural factors such as the problem of global warming and climate change, and others that are external like the competition of major powers over the inner goods of the region, all of this thwarted all attempts and kept the region suffering From the same phenomena that prevailed until today.

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