

INTEGRATING ENVIRONMENTAL CONSIDERATIONS IN URBAN PLANNIFICATION. CASE STUDY: PROVINCE OF ALGIERS

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Abstract

In view of the increasing global interest of the environment and the achievement of sustainable development, Algeria sought to take into consideration environmental, social, natural and economic criteria in the preparation of management master plans.

Within the framework of the new orientation of the development policy adopted during the last decade Where it moved from work plans and urban laws to the sectoral plans Hoping to get positive results and this is a result of the sad reality Which the country experienced after the colonial era and the imbalance between the two stages of demographic growth and economic pace Which led to high rates of pollution types and imbalance in urban environments and the absence of culture of conservation of the environment.

In this study, we will try to highlight the extent to which Algeria is included in the various environmental standards of urbanization Within this new approach, through the study of the guideline of the mandate of Algeria, a critical analytical and field study and give priority to the bilateral approach between intensifying and improving environmental quality and sustainable development

Key words: Environment, Environmental considerations, guidelines, urbanization, sustainable development

Introduction

Spatial planning in all policies aimed to organize space in the objective of achieving and proposing a method to integrate sustainable development approaches and a balanced development of territories. For the implementation of this strategy the state has been developed modern planning tools, which consists of drawing up master plans and sector plans by 2025, the state take into account the objectives and orientations of the law n ° 01-20 of 12/12/2001 relative to sustainable development of the territory, the protection of the environment and projections of socio-economic parameters. At the end, in order to achieve a sustainable development of the territory, the state has taken into consideration aspects relating to economic and social developments as well as the environmental balance.

This essay tends to show that these documents embody privileged tools with regard to the management of the environment carried out by municipalities.

Our main objective is to evaluate the consideration of the environment in the documents of territorial planning, consequently the ability of these documents to translate the environmental dimension of the territory.

1-Algiers after independence

After independence, the Algerian state continued to rely on what the colonizer had left Both in terms of their urban structures and patterns, or in terms of the laws and regulations inherited, it followed the Constantine plan of 1958, But the remnants of colonizer Of the Algerian state floundering in the tragic colonial legacy It has suffered from social imbalances, Things started to take on another space, especially in urban expansion, and the demographic growth witnessed by the city, By focusing economic activities and industrial interest This has contributed to the process of migration and attracting different groups of society for job search. The population of about 600,000 people moved after independence (In 1962), to about one million people in 1966 and rose during the year 1970 to 1.3 million people, The city has taken on expansion Until it extended beyond its natural boundaries from its center to the east Where soil fertility is available.

According to the National Agency for Urbanization, the sedimentary plains loses significant areas of up to about 1000 hectares annually, this is due to the western topography that characterizes the region, other reasons like low prices, ease and speed of delivery.

However, the results of this extension were the pressures that the city has become the problem she has lived and continues to live that the public authority seeks to address especially in housing, the terrible demographic growth has had serious consequences, facilities and services available Are no longer sufficient to meet the needs of the population, The interest of the state was targeted especially in the industrial field and its development.

That it is necessary to develop programs expedited to accelerate and decouple the capital It was the first proposal of the Standing Committee to study, develop, organize and prepare the region of Algiers COMEDOR, in accordance with Executive Decree No. 68-625 of 20 November 1968, the most important points included were:

1. Restoration of the First May Square
2. Restoration of the Hama area
3. Extending the colonial center to the Bab al-Zayir area in the east.
4. Extension of the capital from the west.

2-Development of plans

The POG general guideline was developed To organize and create the city of Algiers, which emerged from the Comidore in accordance with Executive Decree No. 75-22 of 27 March 1975, whose objective is to be in the:

1. Development of elements of the urban environment to solve the problem of imbalance of its structures.
2. Bridging gaps between sectors.
3. Pay attention to the transport network and roads (Where the eastern highway and the southern belt between the urban and suburban centers were completed).
4. Attention to the third sector.
5. The largest equipment, the most important of which is housing, and the long-term prospects were set till the year 2000.

However, the work of the POG has been suspended under the policy of conservation of agricultural land, and the imbalance of the urban fabric between the eastern and western parts, especially the spread of industrial space in the eastern part (the deterioration of urban life),it can be said that it led to urban production around the city of Algiers which exceeded the expectations of the COMEDOR. In order to protect agricultural land and reduce the growth of the city capital the Cabinet adopted on 30 September

1979 a resolution containing the cessation of the POG scheme, studies have been prepared for a new urban planning scheme known as the PUD, After COMEDOR, the National Center for Studies and Research (CNES) was established in accordance with Executive Decree No. 80-275 of 22 November 1980 who was entrusted with the preparation of the PUD reconstruction plan, where most of his concern focused on the conservation of agricultural land to produce and reduce the area of capital growth planned in the POG scheme, And to reorient their westward and south-west reconstruction along the coast where the programming of seven towns belonging to city satellite ,with a capacity of 200 thousand inhabitants for each of them; these are : Bir Khadem, Sahawlah, Kharasiya, Duwayrah, Shuraqah, Ashoor, oueled Fayet, Thus, the system of secondary centers will reduce the gravity of the population in the capital and stop the waves of migration in these small cities , Algeria is now in the process of implementing the policy of new urban residential areas ZHUN, which turned into VILLES DORTOIRS (sleeping cities), which lacks the infrastructures and facilities that serve its population.

The industrialization policy adopted by Algeria in 1970 made the capital the most prosperous region With a reconstruction rate of 45 and 44 civilians in its center, Making PUD scheme directives no different from those of the POG scheme, This is due to the eradication of thousands of hectares of agricultural land. In 1990, the National Center for Urban Studies and Research reviewed and defined the Guiding Construction Plan and the development of another building tool for the domainization of the PDAU, in accordance with Law 29-90 of 01 december 1990, And make it more interested in the technical use of the urban area, the PDAU has been embodied in the development of the POS scheme in accordance with Executive Decree No. 177-91 of 28/05/1991, which constitutes a legal mechanism for implementing PDAU directives.

However, this scheme, which was introduced in 1991 was only ratified in 1995, Similar to that of the PUD, Indicating that its contents had been established on the basis of the population And the facilities the city had in the 1980s, and no longer in the whole fit the new data, especially in the demographic and economic indicators, as well as the high rate of rural exodus to the city, has not been taken into account.

The metropolitan area of the city formulation Law 87-03 gave the formal and practical character of the urbanization and performance of its basic functions at the national level.

For the recent urbanization is related to the environmental field because of the urban character of the studied city or the global urban community, a new term has emerged: sustainable development.

This correlation between urbanization and sustainable development has shown new steps that will work over as part of the current and future strategies.

This will give dynamic productive process of wealth and the creation of positions of work in the duration of the project, There is also an urgent need to introduce planning processes that will provide solutions to community problems and sound predictions of established development work Because it will not only remain a subject of discussion, but will be in the process of giving and harmonizing the solutions to the crisis related to its established projects, and thus facing the obstacles to achieve positive factors for the lives of the population.

The urban setting in its entirety carries with it a sustainable outlook by searching for the most efficient ways to manage wealth, production and employment Social cohesion, which led the State to issue a new law

combining urbanization and sustainable development, represented by Act No. 10-20 of 12 December 2001 on the creation of the Territory and sustainable development, this allocated Articles 22-41 to identify sectoral plans for major infrastructure and collective services of national benefit for the development of national territory and harmonious development of regions. The new law has been reflected in sustainable development in order to introduce and maintain the environmental factor as well as national development.

3- Sustainable sectoral planning

- The Master Plan for Natural Spaces and Protected Areas.
- Transport guideline.
- The agricultural development guideline.
- Guidelines for the development of fishing and fishing resources.
- Power Grid Directive.
- The guidelines for the interests and structures of transport, telecommunications and information.
- Guidelines for university institutions and research structures.
- Training outline.
- Health outline.
- Tourism Guideline.
- The master plan for property, services and major cultural facilities.
- The outline of sports and major sports equipment.
- Industrial zones and activities guidelines.
- The outline plan for archaeological and historical areas.

All of these guidelines will be a detailed basing on sectoral vision, according to the zonage principle, areas that need to be upgraded were not found in the previous law 87-03 and are present in the existing law 01-20, and all areas of economy and industry, A weak industrial and services fabric, with the introduction of poor rural areas and all sensitive urban areas (the imbalance between housing, population and employment). The state therefore classifies these areas and the works directed at them. This idea is derived from French law.

The strategic location outlined above for the city of Algiers , as the political and economical capital of the country, which has gained great importance at the national level, it is the first city in terms of population size, with 2.987.160 people according to the General Census of Population and Housing in 2008, representing 8.76% of the total population of the country, In addition to attracting many economic activities, Its industrial activities represent "25% of national industrial activities.

The activities of Port of Algiers represent more than 40% of the national port activities "

4-Outcome of environmental considerations on reconstruction

In the context of the economic development of Algeria after independence, it has been living under the weight of environmental challenges. It is clear that the negative effects of technological development can not be denied due to the lack of respect for the environment and its considerations. The waste and industrial products have led to the depletion of natural resources.

It is worth mentioning that industrialization has adversely affected the urban area from the deterioration of the ecosystem and the associated emissions of gas and liquid and solid wastes.

5-Analysis of Pollution and its Types in Algiers

The transformation of large tracts of agricultural land into a new housing projects, in order to meet the increasing demand for housing.

- The spread of informal housing, especially along the valleys, due to the inability of supply of housing in projects programmed in front of the endless demand.
- The theft of beach sand for construction projects.
- The spread of many industrial units, which amounted to 1209 units, divided between five industrial zones comprising 870 units, and eleven areas of activity comprising 339 units.

The above manifestations have resulted in several things, including the following:

- Loss of significant areas of fertile plains up to about "1000 hectares annually."
- Pollution of rivers due to the discharge of wastewater by the industrial units, where 84 industrial units in the industrial areas shed 2,72 Hcm³ / year of wastewater in the collection ponds located in the city (see table 1 and fig 1).
- Sea water pollution, mainly due to urban and industrial wastewater in the Gulf of Algiers (see fig 2).

Table 1. Waste water disposal sites for contaminated units in industrial zones

Drainage place for wastewater	Industrial Area	Total number of units	Number of contaminated units	Percentage of contaminated units
The basin of Wadi Harrach	Oued smar	333	22	26,20
	elharrach	145	15	17,85
	Gui e de Constantine	155	08	9,53
	Sidi moussa	56	10	11,90
The basin of Wadi Al-Reghaia	Reghaia-Rouiba	181	29	34,52
Total		870	84	9,65

Source: MWRE,2018

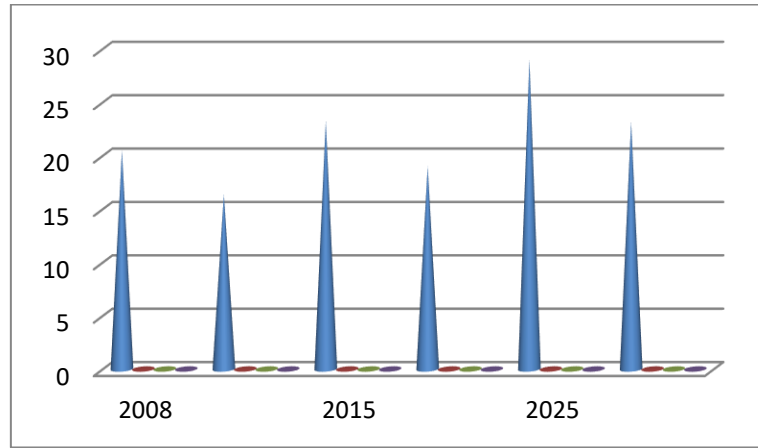


Fig 1. Volume of liquid industrial waste

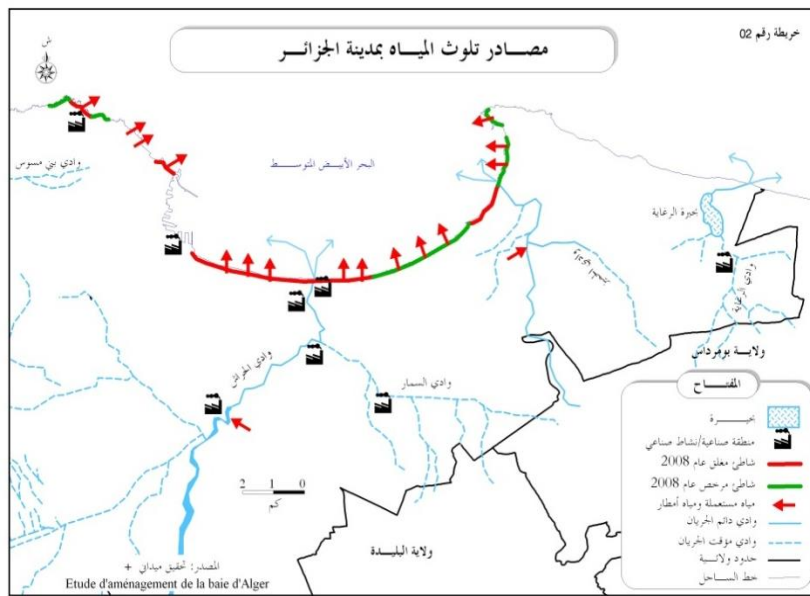


Fig 2. Sources of pollution in the city Algiers

- Coastline retreat.
- Increased concentration of nitrate content in the soil.
- Increasing competitiveness of water consumption, especially by industrial activity, which requires huge amounts of water.
- The high volume of solid waste produced by the population, where the daily average per inhabitant is 0.9 kg, which is high compared to the area of the metropolitan city (the capital of Algeria), which did not exceed 0.65 kg, as shown in Table 02 .

Table 02: Quantity of solid waste in the city of Algiers compared to other territories.

wilaya	Population 2008	Urbain waste kg day/person	Midium quantity T/day	Annual quantity T/day
Algiers	2987160	0.90	2700	2700
Blida	1002935	0.65	650	650
Tipaza	591010	0.65	400	400
Boumerdes	801068	0.65	520	520
Total	5382174	/	4270	4270

The situation is exacerbated by the indiscriminate firing of these wastes on sidewalks in residential neighborhoods, at the edge of roads, along rivers or beaches (see pictures:01,02,03)



Picture:01

Picture:02

Picture:03

Hence, the environmental considerations must be taken before starting the implementation steps of the major projects that are to be implemented in order to achieve the sustainable development desired by these sectors to preserve the environment and natural resources.

6-Sustainable environmental considerations

6-1-Control of environmental pollutants:

The main objective is to integrate environmental considerations into urban development plans. "The environment has a limited absorptive capacity of pollution so that it can withstand a certain level of pollution and can eliminate it." In order for the city's urban communities and its various activities to be a burden on the environment, Projects and technologies, to reduce and reduce pollutants in urban areas.

6-1-1-Control of water pollutants

Water pollutants are controlled by obtaining the necessary facts and data. In order to develop the effluent management program, this program should include more than one waste treatment system. Therefore, effective management should be developed to lead to wastewater treatment and pollution reduction.

the collection of wastewater must first be regarded as raw material, and polluted water is a by-product of the manufacturing process. If these facts are accepted, then it is logical to apply the principles of quality control to the production of polluted water.

Separation of solids is the key step in all contaminant treatment systems. The solids are separated by sedimentation

-Biological treatment: biological treatment has already been developed for sanitation, but this treatment is used to treat contaminated water from organic industries, such as food, paper, textile and other industries.

-Chemical treatment: Independent physico-chemical therapy has emerged as a competitor to biological treatment since about 1970. The most common chemical treatment is the control of contaminated water PH because industrial polluted water is not allowed to be discharged directly into sewage or natural water systems unless modified For about 7 intermediate values to avoid environmental damage.

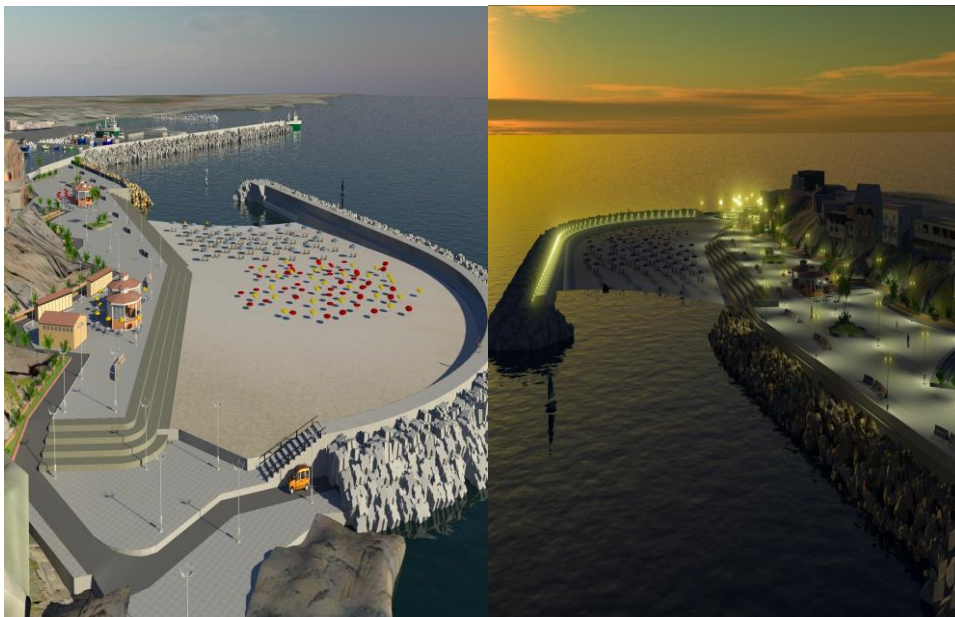
6-1-2-Control of air pollutants

There are many modern technologies used to control air pollution as well as available strategies for land use planning to reduce air pollution. Land use planning at its basic level includes zoning and infrastructure planning. There are many modern technologies used to control air pollution as well as available strategies for land use planning to reduce air pollution. Land use planning at its basic level includes zoning and infrastructure planning.

8-Future vision of Algiers:

This scenario reflects the image of a competitive and balanced territory at the three levels, spatial, ecological and social. The vision of a balanced and sustainable territory brings together the advantages of attractiveness and openness to the external world.

Shoreline protection
El Djamila website: The pilot project
A new relaxation area for Algiers



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Les rencontres et les colloques scientifiques ne constituent pas une fin en soi, loin s'en faut. En effet, au-delà de l'impératif qui consiste à dynamiser la recherche scientifique et académique ; la faculté des Sciences de la Terre et de l'Architecture s'est fixée comme objectif la publication des conférences et interventions scientifiques. En procédant à leur publication et à leur diffusion, elle contribue, d'une part à maintenir le lien qui relie les chercheurs universitaires aux derniers développements dans le domaine urbain, et, d'autre part, à valoriser les publications des actes scientifiques des chercheurs universitaires.

Les questions récurrentes posées sur le rôle des villes petites et moyennes dans l'organisation de l'espace et leur avenir face à la métropolisation, ont conduit à formuler un certain nombre d'idées-forces et de propositions, dont nous avons débattu lors de ce colloque international.

Les études et exposés contenus dans ce numéro portent un regard renouvelé sur ces villes, sur les problématiques en rapport avec les villes petites et moyennes ainsi que d'autres sujets qui constituent la richesse de ce numéro.

Le Responsable de la publication
Professeur Ahmed Bousmaha



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