SUSTAINABLE CITIES AND PRECARIOUS HOUSING: THE CASE OF ALGERIA

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ABSTRACT: After its experience with the Millennium Development Goals program, Algeria is committed to achieving the Sustainable Development Goals (SDGs) by 2030. This is to develop and improve its regions and cities that suffer from several problems, including the persisting proliferation of precarious housing. The government has set up a national development strategy and implemented it through a policy based on the reconciliation of the three pillars of sustainable development to ensure sustainable cities and regions. Through a review of government policy instruments and their deliverables, this paper explores the extent of success of the policies. It investigates the relationship between sustainable cities and precarious housing by means of an analysis of the measures taken to incorporate the concept of sustainable development into urban planning policies to achieve the SDGs by 2030. Finally, it suggests the need to include communities in any urban planning policy implementation.
KEY WORDS: sustainable cities; sustainable development; sustainable development goals; precarious housing, urban planning policy.

1. INTRODUCTION

Throughout history, the city has been the home of power and has served as the hub for the development of new philosophical reflections, political ideologies, cultural expressions, economic systems, and scientific and technological advancements (Bairoch, 1988; Fournet-Guérin & Vacchiani-Marcuzzo, 2009; Gordon Childe, 1950; Haughton & Hunter, 2003; Nijkamp & Perrels, 1994; Simard, 2012; Simon, 2021). Over time, the development of cities has improved the quality of life for a large part of the population. However, accelerated urbanization is often considered a potential threat to a country's overall efficiency (Haughton & Hunter, 2003). It has contributed to the rise of serious urban issues that are increasingly affecting the natural environment (Alabi, 2020; Andersson, 2006; Haughton & Hunter, 2003; Nijkamp & Perrels, 1994). It has also negatively affected various aspects of people's living conditions, such as health, crime, income, expenditure, housing, education, culture, traffic congestion, resource consumption, etc. This is particularly the case for those in vulnerable social strata (Armand, 1979; Haughton & Hunter, 2003; Véron, 1979). Thus, urban sprawl, when combined with a high concentration of people, goods, and economic activities, increases the vulnerability of urban areas (Serre, 2015).

In a world that is urbanizing at an accelerated rate (rising from 56.6% in 2021 to reach 68.4% in 2050, [UN DESA PD, 2018]), the right to decent and affordable housing and the improvement of the quality of urban life are among the main challenges of UN-Habitat and the Millennium Development Goals for 2015 (MDGs) which were succeeded by the Sustainable Development Agenda for 2030. The seventeen goals of the United Nations Development Program (UNDP) on sustainable development were established to strengthen and complement the achievements and findings of the MDGs to better protect and improve the planet, people's lives, and health, and to leave no one behind (UN, 2015). Given the importance of such goals, several actors and partners were involved. These include United Nations Member States that signed this agenda, local communities and citizens, civil society, development agencies, large corporations, investors, etc. (UN, 2015).

As part of its commitment to achieving the MDGs to eradicate extreme poverty by 2015, Algeria has received a $150 million loan from the World Bank within the framework of the resorption of precarious housing program (1998) (Legros, 2014; Mebirouk, 2018), which aims to fight substandard housing and improve the quality of life of highly vulnerable populations. The prevalence of this type of housing, which dates back to colonial times, is one of the major problems that has plagued and continues to plague some Algerian cities. Precarious housing, (slums and illegal settlements), offers a roof for a large number of inhabitants. It is the result of the political, security, and economic circumstances that the country experienced during the colonial, post-colonial, and civil war periods. The other contributing factor to this situation is the insufficient financial means of disadvantaged families to legally appropriate space in the city.

After its experience with the MDGs program, Algeria is committed to achieving the Sustainable Development Goals (SDGs) by 2030. This is in order to develop and improve its regions and cities that suffer from several problems. Such problems include the persisting housing crisis and the proliferation of precarious housing, which is still prevalent.

From this broad perspective, this paper reviews the government's urban planning policy instruments and the measures taken to incorporate the concept of sustainable development into such policies in order to achieve the SDGs by 2030. The review will explore the relationship between sustainable cities and precarious housing, which remains one of the primary objectives of sustainable development.

To address the questions raised above this work is divided into three sections and is primarily based on a conceptual reading and analytical approach. The first section is devoted to the literature review, which covers the guiding principles of the sustainable

city and its relationship with the reduction of precarious housing. The second section aims to discuss the measures taken and actions implemented by the Algerian government to align its national planning policies with the SDGs in order to address the sustainability of cities and achieve the objectives set by the 2030 Agenda. The final section discusses the extent to which national public policies align with the SDGs.

2. LITERATURE REVIEW

2.1. Sustainable cities: an inevitable, not an optional model

Finding a sustainable model has been strongly established since the twentieth century, when economic, and ecological crises hit the world (Hodson & Marvin, 2017). In 1987, the World Commission on Environment and Development issued "Our Common Future" report (more commonly known as the Brundtland report), which defined sustainable development as "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations." (WCED, 1987, p. 57). Furthermore, since the 1992 Rio Earth Summit, the concept of sustainable development has been increasingly incorporated into urban policies in Europe and around the world, becoming the primary reference point for regional and urban planning policy agendas (Wachter, Davezies, Duran, & Emelianoff, 2003), to effectively protect and develop cities, territories, and their populations.

The rapid spread and application of this concept have led to new concepts such as sustainable cities, urban sustainability, and sustainable urbanism, which became the subject of scientific debates for numerous researchers like Alabi (2020); Haughton & Hunter (2003); Nijkamp & Perrels (1994); Williams (2010). One of the first appearances of the term "sustainable city" dates back to 1988 in UNESCO's "People and Biosphere" research program (Emelianoff, 2007); a term that became popular after the Rio Summit and became a slogan-concept (Hertzog & Sierra, 2010).

Cities in today's world are in a precarious position. Larger urban zones and metropolitan areas in developed and developing countries such as the United States, Germany, Russia, Japan, Korea, Turkey, China, India, and others are among the world's major carbon emitters and the 25 largest cities, mainly from Asia and Europe, generate 52% of total greenhouse gases (GHG) (Wei, Wu, & Chen, 2021). As both responsible for and victims of the crises that threaten them, they are now forced to act and compelled to quickly adapt as they expand. Being aware of this responsibility, they have organized themselves on a national and international scale (i.e., C40 Cities) to follow the lead of the countries and present sustainable models (Guillaud & Chéreau, 2022). C40 Cities is an international network of mayors from nearly 100 internationally renowned cities working together to face the climate crisis and create a world in which everyone can prosper (https://www.c40.org/about-c40/). Thus, in 2015, more than 170 nations ratified the Paris Agreement on climate change (Wei et al., 2021), which seeks to strengthen the international response to the threat of climate change through sustainable development and efforts to end poverty (UN, 2015b).

Haughton & Hunter (2003, p. 26) define a sustainable city as "one in which its people and businesses continuously endeavor to improve their natural, built and cultural environments at neighborhood and regional levels, whilst working in ways which always support the goal of global sustainable development".

Accordingly, a sustainable city develops over time and space while taking into consideration the three aspects or dimensions of sustainable development, which are environmental, economic, and social. According to Guillaud & Chéreau (2022), four tenets are necessary for a sustainable city, which they called the "four horizons," because they perceive sustainability as a process of transformation and not a state. . This viewpoint is in tune with The Brundtland report (WCED, 1987), which defined sustainable development as a process of change and not a fixed state of harmony. The first of the four horizons is sobriety, which entails providing dwindling resources to a growing population. The second is resilience, or the ability to prevent, mitigate, or absorb shocks brought on by climatic, health, or demographic crises. With a preventative and curative logic, the third tenet or horizon concentrates on population health. Inclusivity, the final tenet, asserts that every resident has a right to respectable living conditions.

However, ensuring sustainability in urban areas is a challenge that is difficult to implement because the city is a complex system made up of various subsystems (Guillaud & Chéreau, 2022). Moreover, urban policies and approaches will not only have to focus on environmental issues – although they are at the top of the list of issues and challenges of the sustainable city – they will also have to focus on economic diversification (Emelianoff, 2007). Furthermore, they need to address social sustainability. This means protecting human rights, improving communities' social interactions, their sense of belonging and their quality of life (Wang, 2014) (easy access to decent housing, basic amenities, and property rights, etc.), helping the most vulnerable social strata, fighting against socio-spatial inequalities, and involving inhabitants in environmental protection (Emelianoff, 2007). In Europe and North America, a lot has already happened in this respect as social sustainability has already been recognized and formalized as a key indicator within the community planning research framework (Wang, 2014). The above initiatives need to be adapted to the specificities of each national and regional geographical and institutional context (UN, 2020).

Despite these challenges, there are numerous successful examples of sustainable neighborhoods and cities in European countries (Nijkamp & Perrels, 1994) (which have a long history of sustainable urbanism), especially from northern and western Europe, such as "Vauban" (Freiburg, Germany), "Hammarby Sjöstad" (Stockholm, Sweden), Västra Hamnen (Malmö, Sweden) (Medved, 2017; Medved, Kim, & Ursic, 2020). It is worth noting that there are some successful experiments in some developing countries. China as one of the major carbon emitting countries is now promoting sustainable urban design, where 14 provinces and 150 counties have started various programs and planning for eco-cities in collaboration with other countries to learn from their advanced technologies and infrastructure (Medved et al., 2020). Academic research on this issue has gained more significance in China as it has become a global concern. This is due to the country's tendency to improve social and national equity in the modern era. Wang (2014) proposes a theoretical attempt at a social sustainability framework divided into three levels for Chinese communities. This is done by considering their immature community planning system. Individual needs are discussed at the first level. The second investigates social networks, while the final discusses community development. The researcher is of the opinion that the social sustainability framework process is more challenging in practice. This is because it calls for collaboration between various departments and stakeholders in community planning, development, and governance.

2.2. Reducing precarious housing to ensure a sustainable city

With the rapid growth of urban populations and buildings, as well as the increase in environmental and climate challenges (air and water pollution, global warming, depletion of natural resources, etc.), the creation of sustainable cities and communities was one of the SDGs for 2030. The eleventh goal (SDG11), through seven targets and three implementation targets, aims to create resilient and sustainable cities and human settlements that are safe and inclusive for all by addressing major issues in urban areas (population growth, urbanization, and their impacts on the spread of precarious housing, degradation of urban quality of life, pollution, etc.) and which constitute obstacles to socio-economic and cultural development, especially in developing countries. Indeed, SDG11 targets aim to reduce the number of people living in informal settlements and slums located in marginal areas (land at risk of landslides, flooding, etc.), improve people's quality of life through the creation of decent housing and basic services accessible to all, clean up precarious neighborhoods, create developed, accessible, and affordable public transportation systems, facilitate access for all to green spaces and public spaces, particularly vulnerable categories (children, women, the elderly, people with disabilities), rationalize the consumption of resources, etc. (UNGA, 2015).

In its 2020 SDG report, the United Nations highlighted the impact of the COVID-19 pandemic on people living in informal settlements to show how this state of crisis has accentuated the vulnerability of these communities, already suffering from land and economic insecurity, deplorable housing conditions, severe overcrowding, difficulties with accessibility or an absolute lack of servicing (water, electricity, sanitation, public transport, etc.), care equipment, and services.

These crises caused either by pandemics or environmental or industrial disasters, present governments and public authorities with a significant challenge. They are called upon to plan and develop inclusive cities capable of meeting the needs of their inhabitants and protecting them from various risks. Cities where the artificialization of the soil is curbed, where urbanization works hand in hand with the development of housing and services, and where all inhabitants have the right and ability to access them (Guillaud & Chéreau, 2022). Cities where poverty is reduced and social equity takes precedence over differences in regional, national, racial, ethnic, or religious affiliations. Resilient cities that are adaptable to crises and do not increase the vulnerability of their inhabitants. Cities without pollution and that develop in harmony with the natural environment and cultural heritage. Cities where the consumption of natural resources and energy is economical and rational, and where technology is a means to make it easy for their inhabitants to live and not an end in itself. (Vergriete & Allègre, 2020).

And yet, reaching the stage of achieving these goals and creating inclusive, resilient, sober, healthy, digital (or intelligent), and hence sustainable cities will never be possible without the presence of good urban governance (Evans, Joas, Sundback, & Theobald, 2013) that ensures the realization of the following conditions: respecting and reconciling the three pillars of sustainable development (environment, society, and economy); creating a regulatory framework favorable to the implementation of its strategy; incorporating an urban consultation culture and collaborative strategy to involve all actors in the urban space (regional actors, investors, researchers, associations, users, etc.) in a transversal approach (Guillaud & Chéreau, 2022), even it will be a process full of incompatibilities and conflicts (Nijkamp & Perrels, 1994); as well as using innovative techniques and tools and sophisticated software such as Building Information Modelling (BIM); and making information and data accessible and open to the public (Guillaud & Chéreau, 2022).

Curitiba in Brazil remains a good example of how a city of 1.5 million inhabitants, exhausted by problems of very rapid urban expansion and slum neighborhoods, has managed to become a global model of a sustainable city (Rogers & Gumuchdjian, 2000). The strategy of its mayor, who was both an architect and an urbanist focuses on a number of actions. The first one was targeted at solving the problem of slums and the enormous insalubrity of these areas while involving the participation of their inhabitants. The second action consisted of the reduction of poverty by economically integrating the inhabitants of the most unemployed slums. The third action was aimed at multiplying the rate of green space per capita from 50 cm² to 50 m² while the final one dealt with the development of infrastructure and public transportation systems alongside a pedestrian road network and bicycle paths (Rogers & Gumuchdjian, 2000).

3. SUSTAINABLE DEVELOPMENT AS PART OF THE ALGERIAN NATIONAL PLANNING AND DEVELOPMENT POLICIES

Algeria has made some commitments to international and regional agreements on sustainable development, (such as Agenda 21 for Sustainable Development (1992), the Barcelona Convention and its Protocols for the Protection of the Mediterranean Sea (1976), the United Nations Framework Convention on Climate Change. These commitments aim to face the environmental challenges and impacts of globalization in the 21st century. As a follow up, Algeria began incorporating the concept of sustainability into its national planning and development policy in 2001, doing so through a multi-step strategy.

3.1. Legislative and institutional changes since the 2000's

The implementation of an appropriate Algerian legal arsenal was the main step in establishing a sustainable development policy. As a result, several legislative texts dealing with sustainable development or incorporating the sustainability dimension have been enacted (Table 1).

Table 1. Some Algerian legislative texts relating to or integrating sustainable development

Law No.	Date	Area of Legislation
Law No. 01-20	12/12/2001	Planning and sustainable development of the territory
Law No. 01-13	07/08/2001	Orientation and organization of land transport within the framework of sustainable development
Law No. 02-08	08/05/2002	Conditions for the creation of new towns and their development
Law No. 03-10	19/07/2003	Protection of the environment in the context of sustainable development
Law No. 04-09	14/08/2004	Promotion of renewable energies within the framework of sustainable development

Law No. 04-03	23/06/2004	Protection of mountain areas in the context of sustainable development
Law No. 04-20	24/12/2004	Risk prevention and management in the context of sustainable development
Law No. 06-06	20/02/2006	The city's orientation law
Law No. 10-02	29/06/2010	Law approving the National Land Use Planning Framework
Law No. 11-02	17/02/2011	Protected areas in the context of sustainable development

To this end, several institutional bodies have been set up. These include the National Observatory for the Environment and Sustainable Development (ONEDD), the National Centre for Cleaner Production Technologies (CNTPP), the National Coastal Commission (CNL), the National Waste Agency (AND), all set up in 2002, and the National Urban Planning Agency (ANURB) which was set up in 2009.

From this legislative, regulatory, and institutional adaptation, new programs that are part of a three-dimensional approach (environmental protection, economic development, and social equity) have been launched to establish an environmental culture in education, promote renewable energies, fight poverty, and protect soil and biodiversity (Algeria - MFA DESD, 2011).

3.2. New land use planning instruments

To ensure land use planning following the challenges of sustainable development, new instruments for spatial planning and sustainable development were instituted by the *Law Relating to the Planning and Sustainable Development of the Territory* (2001).

The first chapter of this law establishes the principles and fundamentals of the national policy of land use planning and development, which aims to create a developed, coherent, and dynamic territory through the exploitation of the assets and specificities of each region, ensuring equal opportunities for promotion and development for all citizens, ensuring an appropriate spatial distribution of people and economic wealth to combat regional imbalance, the opening up of rural areas and marginalized regions, urban armature rebalancing and promotion of regional, national, and international functions of metropolises and large cities, preservation and improvement of areas that are ecologically and economically sensitive, protection of populations and territories against the risks of natural hazards, and rational use of natural and patrimonial resources as well as their valorization.

The second chapter, for its part, presents the new instruments of planning and sustainable development. These include the national land use framework (le schéma national d'aménagement du territoire); the coastal development master plan (le schéma directeur d'aménagement du littoral); the master plan for land protection and desertification control; (le schéma directeur de protection des terres et de lutte contre la désertification); the regional land use planning frameworks (les schémas régionaux d'aménagement du territoire), which was eventially replaced by the planning frameworks for regional land use programs (les schémas d'aménagement des espaces de programmation territoriale "SEPT") ; land development plans for the provinces (wilaya) (les plans d'aménagement du territoire de wilaya) and the master plans for the development of metropolitan areas (les schémas directeurs d'aménagement d'aires métropolitaines). According to Article Seven of this

chapter, the goals of these new instruments are to translate the strategic and fundamental guidelines and prescriptions of the policy of land use planning and sustainable development, as well as to stipulate and enhance the specific requirements of regions with their different scales.

For its part, from a sustainability perspective, the national land use planning framework 2030 places a lot of emphasis on urban issues and city development. One of the actions in this context was the Regional Action Plan (Plan d'Action Territorial) No. 18 (concerned with urban renewal and city policy which is covered by the fourth guideline of the national land use planning framework. The regional action plan seeks to restore the city's functional dimension and bring together the necessary elements for moving toward a sustainable city (*Law approving the National Land Use Planning Framework*, 2010). As part of the city's policy, special measures that incorporate the social dimension will be implemented in disadvantaged urban areas to ensure their integration, such as the resorption of precarious housing with the building of social housing; access to collective facilities; the improvement of neighborhood urban integration and inhabitants' economic and social integration; etc. (*Law approving the National Land Use Planning Framework*, 2010).

3.3. Regional development programs

The integration of the concept of sustainability into public development policies and the creation of new regional planning instruments allowed Algeria to be a stakeholder in several regional and international programs, including the international program for the developing country MDGs launched in 2000 and succeeded by the SDGs launched in 2015, which concerns both developing and developed countries. According to the voluntary national report on the progress of SDGs implementation (Algeria - MFA, 2019), the positive results obtained after the adjustment of sectorial policies with the principles and objectives of sustainable development within the framework of the MDGs, in terms of eliminating extreme poverty encouraged Algeria to adopt the 2030 Sustainable Development Agenda. Algeria significantly reduced its income-poverty in the last 20 years, and it is one of the 20 African nations that, in terms of human development, made the biggest strides towards closing the gap in their Human Development Index "HDI" between 1990 and 2015 (Kwasi & Cilliers, 2020), putting in place an inclusive social protection system, developing and expanding access to basic infrastructure, generalizing primary education, decreasing infant and maternal mortality rates, etc.) (Algeria - MFA, 2019).

As a result, at the beginning of 2000, the government devoted colossal budgets and resources to the implementation of numerous ambitious development programs and strategies that corresponded to the orientations of regional and urban planning instruments, intending to reduce poverty, improve citizens' quality of life and create sustainable territories and cities (Algeria - MFA, 2019). To do so, different actors have been mobilized (the government with its local authorities, associations, public and scientific research institutions, private companies, youth, and women) to achieve the goals.

Indeed, based essentially on Algeria - MFA (2019) report, which highlights the progress of the implementation of the SDGs in Algeria, here are some programs and strategies implemented or in the process of being implemented:

- The implementation of a series of interventions on existing urban fabrics within the framework of the city's orientation law No. 06/06 of February 20, 2006.

These operations aim to control urban growth and the rehabilitation and renovation of vulnerable buildings and the old built environment, in which the city centers of four large cities (Algiers, Oran, Constantine, and Annaba) have benefited from an operation to enhance their architectural heritage (Mazouz, 2015). Furthermore, the operation of building completion and their compliance, initiated by Law No. 08-15 of July 20, 2008, which aims in particular to promote an aesthetic and harmoniously designed built environment.

- The eradication of precarious housing, for which the number of slum sites began to decline in the year 2000, as part of the framework of a World Bank-financed national policy known as the Resorption of Precarious Housing Program for 1998. This operation is also part of the objectives of the urban policy defined by Law 06/06 of February 20, 2006. In this context, all the slums' families were relocated to public rental housing. Table 2 gives the total figures for the four-year period 2015-2018. In Constantine, as a case in point, 12045 shacks were eradicated, and 14300 families were rehoused between 2000 and 2015. These numbers were calculated by the author using data collected from the local Society of Architecture and Urbanism (SAU, 2014), the Department of Urbanism, Architecture, and Construction (DUAC, 2016) and other published data (Nait-amar, 2015, p. 278,281). In the case of Algiers, about 20,000 families living in slums were rehoused between 2014 and 2018 in public rental housing (Merrad Benyamina, 2019).

Table 2. 2015-2018 public rental housing (units delivered) intended for the elimination of precarious housing, according to a government report (Algeria - MFA 2019)

Year	2015	2016	2017	2018	Total
Resorption of precarious housing	28 265	17 103	17 110	17 355	79 833

- The establishment of a housing program with various access formulas according to the financial means of the different social categories, to fight against the current housing crisis and provide citizens with decent and affordable housing. More than three million housing units were built between 1999 and 2018 (Benlakhlef & Bergel, 2019), of which 680 654 urban dwellings were built between 2015 and 2018 under the four formulas: public rental housing (LPL), also called social rental housing, for low-income households; rent-to-own housing for middle-income households (AADL, CNEP, IMMO); assisted promotional housing (LPA) also for the middle class; and promotional public housing (LPP) for relatively high-income households.

- The updating of disaster prevention and management plans through the implementation of investments and major developments in vulnerable areas and regions (especially in the northern part of the country, to reduce the scale of the risks of natural disasters on people and property (landslides, floods, earthquakes, forest fires, etc.). This part of the country is characterized by its sensitive geographical and geological nature, and high seismic activities coupled with irregular rainfall. Furthermore, the implementation of particular intervention plans (PPI) to combat industrial risks was undertaken. According to the government source (Algeria - MFA 2019), a budget of more than 100 billion DA has been mobilized as part of the five-year plan 2010-2014 to deal with the risk of flooding in 15 northern agglomerations, 3 cities on the High Plateaux region, and 4 southern cities.

- The deployment of a national strategy for green spaces, following the provisions of Law No. 07-06 of May 13, 2007, relating to the management, protection, and development of green spaces. With this in mind, the Ministry of Environment and Renewable Energies has decided to build an urban park in the main city of each province (Wilaya). Consequently, the number of green spaces, estimated at 80 million m² in 2014, increased to 224 million m² in 2017.

- The establishment of SNGID-2035, a national strategy for integrated waste management with several goals. In this context, about 220 technical landfill centers (CET) for household and non-household waste and 16 sorting centers for household waste have been constructed to better manage waste and get rid of uncontrolled landfills that are harmful to human health and the environment.

- The improvement of hydraulic infrastructure (construction of dams, retention ponds, etc.) and implementation of different techniques (seawater desalination, reuse of treated wastewater, etc.) (Mozas & Ghosn, 2013). Between 2000 and 2016, more than 50 billion dollars were dedicated to the implementation of the national water resources indicators improvement program (Algeria - MFA 2019) and the setting up of programs to optimize affordable access to drinking water and sanitation, ensure equitable distribution of water, and good management of water resources, among other things.

- The improvement of transport infrastructure through the extension and modernization of road, rail, air, and maritime networks; the construction of new public transportation options (the Algiers metro, the light rail system "tramway" and cable cars in various cities across the country). The budget spent on equipment increased from 322 billion dinars in 2000 to 2707.163 billion dinars in 2018.

- The improvement of telephone coverage, internet speed, and other aspects of telecommunication infrastructure to make it affordable and widely accessible.

- The creation of new cities and urban centers to mitigate urban and regional disparities. The five new cities created or in the process of being created (Sidi Abdellah, Bouinan, Boughezoul, El Ménéaa, and Hassi Messaoud) are planned in accordance with sustainable development principles.

- The introduction of specific building techniques in the construction of dwellings to mitigate against the effects of climate change and reduce energy consumption. Such measures include the improvement in the thermal performance of the building envelope by means of an insulated cavity construction replacing the conventional single leaf wall construction, the use of insulating boards for flat roofs, and the introduction of double glazing with aluminium or PVC joinery for better durability. Other measures include the gradual introduction of solar powered public lighting, especially in the new towns.

4. DISCUSSION

Algeria confirmed that the majority of the MDGs have been achieved in its voluntary national report on the progress of the implementation of the SDGs and that it has demonstrated on several occasions its full commitment to achieving the SDGs. It expressed its commitment through the integration of the concept of sustainability among the priorities of its national development strategy adopted for 2030. Nevertheless, it still faces several challenges that must be addressed in its roadmap.

One of these challenges is the eradication of poverty. Despite significant progress in this regard, there are still small pockets of extreme poverty (around 180,000 people). According to the government's self-assessment report (Algeria - MFA 2019) one in twenty Algerians experiences poverty and the government believes that the top priority is to accelerate the rate of poverty reduction by paying particular attention to the complete eradication of extreme poverty and halving it in all its forms by 2030. These figures seem to be in tune, in terms of trends, with an earlier United Nations report (UN, 2017) which refers to a percentage of acute poverty of 0.62% among the total population. When using the acute poverty indicator (Idem), Algerian society (urban and rural) suffers from water deprivation (19.5%) followed by overcrowding (18.3%) and sanitation deprivation (12.9%).

In the case of precarious housing (slums), huge budgets have been allocated to local authorities as part of shack resorption operations and the relocation of households occupying them to social housing (Table 2), where quantity takes precedence over quality. However, several slum clusters have gradually resurfaced on old sites or new ones, following the relaxation of monitoring and control by public authorities. As such, this type of temporary housing has evolved into a transitional space for social housing.

Illegal self-built dwellings are another precarious housing typology. Unlike slums, they offer their dwellers better living conditions as they are built using contemporary construction materials and methods, but they still suffer from an illegal status with regard to land tenure and planning/construction regulation. The land tenure situation of these marginalized urban enclaves remains undetermined by the public authorities who believe that resolving these issues will encourage the proliferation of illegal housing (Legros, 2014). On the other hand, their elimination requires a large budget and may provoke the anger of the owners, who are satisfied with the state of their houses (in good or average condition) and refuse the idea of eradicating their neighborhoods. As a result, the future of these neighborhoods is uncertain, leaving the inhabitants living there under the constant threat of eviction (De Schutter & Rolnik, 2014; Tribillon, 2014). This insecurity of land use accentuates the physical and immaterial vulnerability of households. Without sufficient security, inhabitants are unable to invest in improving their housing (Durand-Lasserve, 2014), grow their businesses (Simonneau, 2018), or act against their marginalization and indecent living conditions. This state of stress also greatly influences their mental and physical health.

Faced with this harsh reality, the national policy for sustainable development and the creation of sustainable cities remains challenging to accomplish under current conditions because they involve more than just political blessing and financial resources. It requires strong leadership (top-down actions) (Williams, 2010), which mobilizes the appropriate institutional mechanisms to ensure the effective implementation and compliance with legal texts, the protection of public funds, and the monitoring and permanent control of the quality of products and services delivered.

Additionally, to ensure the successful implementation of this policy the entire civil society, not just those closest to the state apparatus (Tedjani, 2021), as well as all citizens (Guillaud & Chéreau, 2022), regardless of age or gender, must be involved in the sustainable urban development process (bottom-up changes) (Williams, 2010). The sense of community and belonging are fundamental components of urban social sustainability (Medved et al., 2020; Wang, 2014). Medved (2017) indicates that in comparison to sustainable neighborhoods developed top-down, participatory bottom-up neighborhoods are more socially sustainable and have a stronger and more complex local urban governance system. Policy makers and researchers in Sub Saharan African countries are called upon to learn from indigenous urban forms and develop strategies based on them, as these reflect the culture, aspirations, experiences, and values of local people (Asomani-Boateng, 2011).

Generally speaking, in the Global South, where "… democratic decentralization has not been implemented with great vigor or efficacy" (Pieterse, 2019), the concept of the right to the city is even more difficult to achieve.

Furthermore, without good governance that integrates information and communications technology (urban e-governance) to enhance government services (Cheniki, Baziz, & Bougdah, 2020), combined with the genuine and efficient involvement of all of the stakeholders, any financial investments and efforts made by local authorities will be doomed to failure, and no significant change will be made.

5. CONCLUSIONS

In Algeria, the high urban concentration (both in terms of population and economic activities) in the northern part, and mainly at the level of large cities, has contributed to the creation of regional imbalances and to the emergence of various urban phenomena and problems that have harmed the environment and the quality of urban life, including the housing crisis, which in turn has generated other problems such as the proliferation of precarious housing (slums and illegal self-built dwellings).

However, building housing is not enough to alleviate this crisis or offer people a decent and modern way of life. Therefore, to meet the needs of the population, it is essential to think about the quality of life, which means creating a hygienic, comfortable, secure, and modern living environment through the connection of housing to various networks (gas, electricity, drinking water, sanitation, the internet), the creation of public amenities, green spaces, and the modernization of public services such as public transportation, etc.

Considering the seriousness of these local, national, and global issues, such as climate change, the government has committed to a pathway of sustainable development by implementing a legal and institutional rehabilitation that gradually ensures the integration of sustainable development guidelines into the national planning, socio-economic development and urban policies.

From this rehabilitation launched in the early 2000s, new programs that are part of a three-dimensional approach (environmental protection, economic development, and social equity) have been launched to create sustainable cities and territories, fight poverty and various forms of inequality, enhance citizen quality of life, implement environmental

education, promote renewable energies, and protecting soil and biodiversity (Algeria - MFA DESD, 2011).

The self-assessment by the State of Algeria of its initiatives for implementing Agenda 2030 goals through the prism of its national development strategy outlined by the national land use planning framework seems ambitious in describing its success. However, this does not correspond to reality, because despite the numerous programs and important public investments carried out or in progress, Algerian cities still face serious urban issues and challenges and suffer from several problems, including the persistence of precarious housing.

Furthermore, reaching the stage of sustainable cities requires more than a reform or a legislative adaptation, and the realization of ambitious projects. The national strategy enacted by the government must invest more in e-governance and in raising the citizens' awareness and in educating them (regardless of their age and gender) about sustainable development, through extracurricular activities and community training, for example (Dussaux, 2010). A society aware of the importance of the challenge of sustainability can contribute effectively to the implementation of this strategy. This idea is echoed by the findings of Wang (2014) who advocates the role of community planning in achieving social sustainability.

Focusing the bulk of the development programs on urban areas may in the short term improve the situation but can eventually lead to an unbalanced development that, in turn, could lead to the displacement of the rural population and the reappearance of slums in cities. This may have an even bigger impact in developing countries with significant socio-economic imbalances between the rural and urban regions. The United Nations report (UN, 2017) gives figures for acute poverty in rural areas higher than urban ones as water deprivation, overcrowding and sanitation deprivation in the former reach 26%, 23% and 20% respectively.

To avoid a worsening of the situation, future urban planning and development programs ought to consider this if sustainable cities are to become a reality.

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